



AN INVESTIGATION INTO THE MANAGEMENT OF THE ADULT EDUCATION
PROGRAMS AND ITS EFFECT ON LIFELONG LEARNING IN THREE ADULT
EDUCATION INSTITUTIONS IN ANTIGUA AND BARBUDA

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Doctorate of Education (EdD)

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Abstract

AN INVESTIGATION INTO THE MANAGEMENT OF ADULT EDUCATION
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The government of Antigua and Barbuda has invested heavily in adult education programs, but there is no known documentation of their effectiveness. The study used the theoretical framework of andragogy, proposed by Malcolm Knowles, to understand how adults learn and what motivates them. The research questions focused on the efficiency of adult education programs, learning preferences, teaching methods and structures, and the motivation, barriers, and socioeconomic factors of adult learners.

A mixed-methods approach was used, with quantitative data collected through questionnaires and interviews with adult learners, facilitators, heads of institutions, and Ministry of Education Officials. Gradebook was used to examine curricula and grade books. Chi-square tests of independence were conducted to assess the effects of the manipulated variables.

The findings revealed that less than 50% of adult learners in Antigua and Barbuda believe the programs are appropriately managed, but not to a high extent. It was also revealed that the most significant barriers affecting adult learners are financial or economic constraints, followed by children or family responsibilities, while gender, educational level, and barriers do not affect motivation. These issues have implications for the effective management of programs. Additionally, adult learners in Antigua and Barbuda were motivated by extrinsic factors such as finance, but some were motivated intrinsically and extrinsically, since they are motivated by personal development

The study recommended government policies on tertiary education management, including the adoption of andragogy in adult learning institutions, the overhaul of adult learning curricula, and training for management, facilitators, and other support staff working in andragogy, to ensure that adult learners fully benefit from their enrollment. This research is vital for how adult learning institutions are managed, including managers, facilitators, adult learners, employers, and other stakeholders. This research will serve to improve the lives of the citizenry in Antigua and Barbuda and perhaps further afield.

It is recommended that this research serve as a guide for future research in Antigua and Barbuda, helping to strengthen adult education programs, ensure they operate at maximum efficiency, and assess funding adequacy. The research also recommends that similar studies be conducted across the wider Caribbean to determine whether the management of adult education programs in other territories is similar to that in Antigua and Barbuda. The information gathered will assist in shaping the direction of adult education programs in Antigua and Barbuda.

Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment, the work presented is entirely my own.

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Dedication

This work is dedicated to my husband, sons, granddaughter, and friends for their support and encouragement during the process of completing this dissertation. Their patience and understanding were overwhelming. Most importantly, I would also like to dedicate this research to the almighty God for his divine intervention and guidance throughout this learning experience.

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List of Abbreviations

CARCAE	Caribbean Regional Council for Adult Education
CARICOM	Caribbean Common Market
CONFINTEA	Conference International for the Education of Adults
HEART	Human Employment and Resource Training
NGO	Non-Governmental Organization
NSTA	National Service Training Agency
OECD	Organization for Economic Cooperation and Development
OECS	Organization for Eastern Caribbean States
REAF	Research Ethics Application Form
SDG	Sustainable Development Goals
SPSS	Statistical Package for the Social Sciences
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UREC	Unicaf University Research Ethics Committee
WHO	World Health Organization

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CHAPTER 1: INTRODUCTION

Adult education significantly impacts a country's social and economic development (Liashenko, 2020), and as a result, many countries have invested heavily in this area. Adult education equips citizens with the means to acquire the knowledge and skills needed to become more productive citizens. This research views adult education as the acquisition of knowledge through formal means in the tertiary education sector. Such programs are therefore geared toward equipping adult learners to live more meaningful and successful lives, which, in turn, will allow learners to contribute to the development of the societies in which they are a part (Onyenemezu, 2012).

This educational sector is now being promoted as part of the agenda of countries worldwide, including the Caribbean. Blaszcak (2013) claims that this type of education, combined with lifelong learning, can significantly impact socio-economic growth and development. Furthermore, a United Nations Educational, Scientific, and Cultural Organization (UNESCO) report (2009) states that in the twenty-first century, adult education is significant for transforming individuals within an economy. Attention, therefore, needs to be focused on how these programs achieve their objectives of developing adults who can contribute to the social and economic development of their countries. Also significant is the degree to which the managers of these programs cater to adult learners and instil in them the desire to continue learning. As such, this research will examine how efficiently the adult education programs in Antigua are managed. Understanding the context in which education exists or evolved in Antigua and Barbuda is imperative.

Antigua is a Caribbean Island that is part of the Caribbean Common Market (CARICOM) and was historically under British sovereignty for some 300 years (UNESCO, 2001). As a result, the CARICOM islands of the Caribbean, including Antigua, share many similarities, including those reflected in their educational systems. In support of this, Peters

(2001) found that education in these Caribbean islands mirrors that of the British system. However, unlike the adult education system in the United Kingdom and in Jamaica, Antigua does not track the success of its programs, and the term Adult Education is merely mentioned in the Antigua Education Act (2008). There is no policy in the act governing the adult education sector.

Notwithstanding the lack of attention to adult education in Antigua, there appears to be growing interest in these programs on the 108-square-mile island. Adult learners enrol in and graduate from the three tertiary educational institutions annually, but the success of these programs is unknown because no measurement or documentation has been undertaken.

Therefore, to determine the success of managing adult education programs, mixed-methods research, which utilizes both qualitative and quantitative methods sequentially (Creswell, 2018), will be applied. This will allow the researcher to collect both quantitative and qualitative data within the same study across different phases (Creswell & Plano, 2018). The quantitative phase will collect quantitative data on adult learners. In contrast, the qualitative phase will explore the lived experiences of the adult learners, facilitators, heads of institutions, and Ministry of Education officials.

To effectively carry out this research, a review of the management of adult education programs in Antigua and Barbuda, a twin-island state in the Caribbean, will be conducted. This will give insight into the extent to which the adult education programs in Antigua are managed compared to elsewhere, as well as the degree and nature of the socio-economic factors affecting these programs. Also, because it is reasonable to link the success of these programs to how well they are managed, the appropriateness of curricula, the teaching and learning environment, and learner outcomes must be examined. Moreover, any learning barriers, such as situational, dispositional, and institutional, as discussed by Cross (1981), as well as factors that can stimulate learning in adult learners, as proposed by Arends (2015), will be explored.

Additionally, the theory of andragogy, as pioneered by Knowles (1984), posits that adults learn differently from children and is relevant to this research. As such, this theory will form the conceptual framework for the research. The research will also determine whether learners are satisfied that their objectives align with the programs' objectives. Further, a literature review on adult education and lifelong learning will also be undertaken.

There appears to be very little attention paid to adult education in Antigua and Barbuda, and it is merely mentioned in the Education Act of Antigua and Barbuda (2008). Also, adult education does not form part of the revised Education Sector Plan 2022-2027.

The results of this research will provide the foundation for future research.

1.0 Statement of the Problem

Adult education is deemed to be of importance in Antigua and Barbuda's society, as it is becoming increasingly important the world over and more specifically in Antigua, where it is believed that if adult learning is done successfully, it could stimulate further learning among adult learners (Motschilnig et al., 2012). Additionally, as further highlighted by Motschilnig et al. (2012), proper education for adults can lead to these individuals developing personally and, in their societies, both socially and economically. In support of the importance of successful adult education programs, UNESCO (1997) also believes that such programs can produce citizens who can contribute to countries' socio-economic development. Likewise, Charunkaikkul (2018) believes that properly managed adult education programs should improve participants' quality of life as they will have the skills to compete globally. All of this suggests that this research could inform policymakers in Antigua about the extent to which these adult education programs contribute economically and socially to the country.

The problem in Antigua and Barbuda is that there appears to be increasing interest in adult education programs. However, little or no attention is paid to how these programs are managed and to the impact on learners' ability to continue their learning. The budgetary

injections on an Annual basis in Antigua and Barbuda Estimates of Revenue and Expenditure are quite significant and range from 8 594751 in 2015 to 9 678 600 in 2018 (Ministry of Finance, Estimates of Revenue and Expenditure 2015, 2018) despite increased interest being shown in adult education; Notwithstanding, the large capital injection the term adult education is not emphasized and/or promoted enough. Politicians and other government agencies in Antigua and Barbuda would not specifically discuss it. This is not in keeping with worldwide standards, as posited by Dima et al. (2018), since adult education is intricately linked with having a population with the requisite skills and knowledge to compete in the global environment. It can be reasoned, therefore, that some emphasis should be placed on the efficient management of adult education programs in Antigua and Barbuda in a sustained way. This necessitates the development of lifelong learning models that stimulate continuous knowledge acquisition, contributing to the overall development of individuals and the societies in which they live (Dima et al., 2018).

While these programs are funded annually, there exists a lack of tracking and documentation on their success. Without proper monitoring of these programs, the justification for annual capital injections fails to explain how well they are managed or how well they meet their objectives of motivating learners to continue learning. This lack of information could retard any improvements that can be made to the programs and could be deemed as a waste of resources on the part of the government policymakers. Further, by ensuring that these programs are adequately managed and that transitioning learners continue learning, a conceptual framework will be developed to provide guidance and ensure proper management and success. Such a guide will outline how these programs can be managed efficiently and motivate adult learners to continue learning. Much research on adult education has been undertaken globally, in Africa, Europe, North and Central America, and even in parts of the Caribbean, such as Jamaica. However, no such research has been undertaken on the tiny 108-square-mile twin

island state of Antigua. It is therefore significant that policymakers be better informed to make more meaningful decisions about addressing any deficiencies in the programs once a determination is made about how they contribute to Antigua's social and economic development. This research aims to fill the gap by justifying the provision of annual funding and by providing documentary evidence of the programs' efficiency. The evidence from this research would also guide government policymakers on where and when adjustments to capital injections are needed. Further, it would add to the body of literature in the Caribbean region and further afield. Most importantly, it would provide a template for future research in Antigua and Barbuda, the other Eastern Caribbean Countries, and further afield. This could help the other territories assess their current adult education programs or assist in establishing such programs. The process used to assess the efficiency of the programs in Antigua and Barbuda could be applied to their context.

Such an investigation will examine the suitability of curricula, the teaching and learning environment, learner outcomes, and the barriers to learning and motivation of adult learners, as advanced by Cross (1981). Moreover, the theory of andragogy, as articulated by Knowles (1984), will also be examined to determine its influence on the management of adult education programs. Having stated the problem, it is essential to explain why this study is necessary and what it aims to accomplish.

1.1 Purpose of the Study, Research Aims, and Objectives

Antigua and Barbuda have been involved in adult education over the years. Still, there is no known tracking to determine whether the programs are efficiently managed and how learners are being transitioned to continue their learning. Moreover, millions of dollars were invested in these programs over the years, yet no documentary evidence of their success was identified. This research, therefore, aims to determine whether these adult education programs in Antigua and Barbuda were managed efficiently and achieved their objectives. To achieve

this, the study used the mixed-method explanatory sequential approach posited by Creswell (2012, as cited in Vivek, 2023). Measuring the success of these programs in Antigua and Barbuda is significant, as it will eliminate speculation and provide documentary evidence of their management. This research could also provide a foundation for future research on adult education in Antigua and Barbuda, the Caribbean, and beyond.

The research focused on the twin-island state of Antigua and Barbuda, as the researcher is a citizen of this state. Furthermore, the researcher selected three tertiary indigenous institutions in Antigua and Barbuda, one of which started in the 1970s and the others in the 2000s. These institutions were selected because at the time of conducting this research, these were the only major tertiary institutions on the 108-square-mile island of Antigua and Barbuda.

The education systems in Antigua and Barbuda were traditionally modeled on the British (United Kingdom) system (Peters, 2001). However, this system appears less commodified than the tertiary education system in the United Kingdom. In that country, the commodification of education results in adult learners' education being determined by economic factors, which dictate their access to the programs offered (Mirowsky, 2017).

One measure of the efficiency of adult education programs is to assess the factors that may affect their effective operation. One such factor to be explored is andragogy, as postulated by Knowles (1984). Such a theory would place adult learners in a teaching and learning environment that should maximize output. Additionally, different theories about barriers to adult learning, as highlighted by a myriad of researchers and organizations such as (Cross, 1981,1984); Rogers, (1996); Rubenson et. al., (2009); Social Research and Demonstration Corporation, (2019) will be explored to determine the barriers that could confront learners as they engage in the adult education programs. As such, document analysis will be carried out on the curricula used in the adult education programs, students' records, and relevant adult education literature. Moreover, the researcher intends to conduct interviews to gain an in-depth

understanding of students' perspectives on their enrollment in the programs and the methodologies used in the learning environment. Furthermore, the factors that motivate adult learners, as posited by researchers such as Knowles, Holton, and Swanson (2014) and Cross (1981), will also be examined to determine the extent to which adult learners in Antigua and Barbuda are motivated to continue learning. Additionally, socio-economic factors such as age and gender, as well as learners' social backgrounds, will be examined to determine their impact on learners in Antigua as they transition into lifelong learning. Such an exploration will form the basis for understanding the importance of undertaking this research.

To achieve the research aims, several objectives were formulated in line with the research questions.

1.1.1 Objectives of the Research

The objectives that form the basis of this research were established to

1. Examine the extent to which the adult education programs are efficiently managed and equipped learners to transition into lifelong learning,
2. To determine the factors that influence adult learners to continue learning.
3. To determine the barriers that influence adult learners to continue learning.
4. Examine the extent to which socio-economic factors could influence adult learners' transition from secondary to tertiary education and beyond.

The efficient management of adult education programs dictates that curricula, modes of delivery, and learning environments, which are outside the learners' control, should be considered when planning them (Poudel, 2020). As such, Objective 1 (1) aims to determine the extent to which the programs are efficiently managed to motivate adult learners' transition into lifelong learners. The use of andragogy will be examined in this regard, as it is considered the theory of how adults learn best (Knowles, 1984). If management applies this theory to the curriculum and teaching and learning environment, learners should be sufficiently motivated

to become lifelong learners. Moreover, objective two (2) focused on factors influencing adult learners' continued learning. It focused on the roles of gender and the highest level of education attained by adult learners' parents. Many factors can influence adult learners' motivation, depending on their experience within or outside the learning environment. As Chan et al. (2017) noted, adult learners are motivated by different factors that shape their behavior. Furthermore, Wlodkowski et al. (2017) suggest that adult learners' gender may influence their motivation. Therefore, the researcher carried out a chi-square test of Independence. Objective three (3) aimed to determine the barriers that can influence or deter adult learners from continuing their learning. If adult education programs are not effectively managed to address these barriers, they may demotivate adult learners from continuing their learning. Barriers to learning differ by context and vary from individual to individual (Rubenson et al., 2009). These barriers should be considered in management's planning process. The relationship between barriers and the motivation of adult learners was also tested for significance using a chi-square test of Independence.

Moreover, objective four (4) sought to ascertain the role played by socio-economic factors, such as the highest level of education attained by the parents of adult learners in Antigua and Barbuda, in motivating adult learners. This objective covers another aspect of adult learners, centred around their socio-economic life. A Chi-square Test of Independence was also conducted to determine the significance of the educational level attained by the parents of the adult learners and the motivation of these learners to continue with their learning.

The objectives sought to examine the efficiency of the adult education programs to ascertain if they are effectively managed and motivating learners to continue learning. Additionally, as an educator for many years, the researcher observed that the tertiary education sector needs to be evaluated and reset to assess its efficiency and identify potential areas for improvement.

1.2 Nature and Significance of the Study

This study will investigate the management of adult education programs in three tertiary institutions in Antigua to gain a deeper understanding of how these programs are managed. Furthermore, since various aspects of managing these programs will be examined and quantitative and qualitative data will be collected, a mixed-methods approach will be employed (Creswell, 2018). Such an approach will allow the researcher to collect quantitative data using a questionnaire and qualitative data using a semi-structured interview schedule, all in the same study (Creswell & Plano Clark, 2018). The design comprises two phases, which will be implemented sequentially, and the qualitative data will be used to explain the quantitative data. For phase 1 of the data-gathering exercise, quantitative data will be collected from adult learners via a questionnaire. Primary data will be collected on adult learners involved in the study. As such, this data will be quantified, allowing for generalizations about the participants (Babbie, 2014).

Additionally, Lim (2024) describes qualitative data collection as a methodology that enables researchers to collect in-depth, rich data from research participants. research approach, which allows adult learners to express themselves based on their experiences. Furthermore, in this mixed-methods sequential explanatory design, qualitative data will supplement the quantitative data, and both results will be triangulated to arrive at a comprehensive conclusion.

A random sample of 150 Adult learners will be chosen from a pool of 300 using random sampling. The sample frame for adult learners is individuals aged 20 to 40. Stakeholders involved in adult education programs generally felt that most learners under 20 years old exhibit immature behavior and are not equipped to contribute meaningfully to the research. The sample was determined using the Raosoft (2004) method. A self-designed questionnaire was distributed to the selected learners to gain insight into questions 4 and 5.

Many tools are used to collect qualitative data, as noted by Yamagata-Lynch (2010); however, this research will utilize interviews and gradebook. A purposive sample of approximately 18 adult learners, 18 facilitators, three heads of institutions, and 2 Ministry of Education officials with adequate knowledge of the adult education programs was selected for this research to conduct interviews. For the interviews, the researcher used an open-ended interview schedule to conduct interviews with adult learners, facilitators, managers employed by adult education institutions, and two officials from the Ministry of Education. Using interviews, the researcher could better understand participants' firsthand perceptions of adult education programs (Saldana, 2011). The interview process should provide answers to research questions 1 and 4. It will also be necessary to collect secondary data from existing sources (Boslaugh, 2007), such as curricula and student outcome records, to establish patterns of performance. This will also help provide answers to questions 1 and 3.

Once collected, the qualitative data will be analyzed using coding as described by Linneberg and Korsgaard (2019), while the quantitative data will be analyzed using the Statistical Package for the Social Sciences (SPSS). SPSS software and Microsoft Excel will facilitate the creation of tables and graphs.

Since no known research has been undertaken to determine the success of the management of adult education programs in Antigua and Barbuda, the researcher believes this research is necessary and timely and would contribute positively to the development of adult education in Antigua and Barbuda. This study aims to fill a gap in the management of adult education programs in Antigua and Barbuda and across the wider Caribbean and Europe. It will inform future research on the contribution of andragogy to the efficient management of adult education institutions and motivate adult learners to continue with their learning. The study also highlights the role of applying andragogical concepts in motivating adult learners, causing these institutions to be more efficiently managed. Furthermore, the knowledge gained

from this research will establish frameworks for adult education institutions and guide facilitators in applying andragogical principles, ultimately motivating adult learners to continue their learning. Upon completion, this study will determine whether the programs are efficiently managed to transition learners into lifelong learning. Such information would add to the body of existing knowledge in other parts of the world, potentially making the programs in Antigua more efficient. Additionally, the existing literature on managing adult education programs in Antigua and Barbuda must be nonexistent. This study will also guide other countries with a similar geographic space, such as the Organization of Eastern Caribbean States, in developing and expanding their adult education programs.

This study is also significant because no known data exists on how adult education programs are managed and function in Antigua and Barbuda. The information gained from this research can form the basis for comparative studies on how the programs are managed and function in Antigua and Barbuda, compared with what happens in other parts of the Caribbean and worldwide. This study will also provide documentary evidence of the success of the adult education programs in Antigua and identify areas for improvement compared to other adult education programs in the Caribbean, the United Kingdom, and other parts of the world. Once the research is completed, it is hoped that the management of adult education programs will ensure that their curricula are student-centered (Livingstone, 2019) and that the facilitators are equipped to deal with such situations as required. Additionally, the researcher is hopeful that the results will help inform the creation of policies on Adult Education in Antigua and Barbuda. Additionally, the development and implementation of these policies governing the management of adult education programs will involve all stakeholders to ensure they are aware of what is expected (Ansell et al., 2017). The research will therefore contribute to improving the efficiency of Antigua's adult education programs and lay the groundwork for future studies on adult education in Antigua and Barbuda and further afield. It could also potentially

contribute to ongoing research undertaken in the Caribbean. The research will be significant in answering key questions necessary for this research.

1.3 Research Questions and Research Hypotheses

The researcher must determine whether adult education programs are efficiently managed based on the research topic and purpose. Furthermore, the extent to which these programs are achieving their goal of transitioning learners into lifelong learners in Antigua must be determined. Adult learners, facilitators, and managers employed by the three institutions, as well as Ministry of Education officials affiliated with these institutions, will be questioned. To this end, the research questions will guide the research and as suggested by Aydin (2016), will serve to explore the phenomenon being investigated. These are as follows:

1. How are the adult education programs in Antigua equipped to transition learners into learning?
2. What factors play a role in motivating adult learners to continue learning in Antigua and Barbuda?
3. What barriers to participation exist for adult learners in Antigua to transition into lifelong learning?
4. To what extent do socioeconomic factors, such as the highest level of education attained by parents of adult learners, influence the transition of learners from secondary to tertiary education and beyond?

In seeking answers to the above questions, the researcher will gain insight into the management of adult education programs in Antigua and how they meet their objectives. Additionally, based on research questions 2, 3, and 4, the researcher wishes to highlight the following hypotheses:

Hypothesis 1

H₀ The variables gender and views of motivation of adult learners to continue learning

are not associated.

H₁ The variable gender and views of motivation of adult learners continue learning learn are associated.

Hypothesis 2

H₀ The variables, barriers, and views of motivation of adult learners to Continue learning is not associated.

H₁ The variable barriers and views of motivation of adult learners to continue learning is associated.

Hypothesis 3

H₀ The variable, the highest level of achievement attained by parents of adult learners and Views of motivation of adult learners to continue learning is not associated.

H₁ The variables' highest level of achievement attained by parents of adult learners and views of motivation of adult learners is associated.

The research hypothesis was used to determine whether adult education programs are effective and motivating for adult learners to continue their learning. Several factors may impact on the effectiveness of adult education programs, potentially demotivating adult learners from continuing their learning. The research hypotheses used were to determine if an association exists between the dependent variable of adult learners' motivation to continue learning and the independent variables of gender, barriers encountered, and socio-economic factors, such as the highest level of education attained by adult learners. Hypothesis one (1) investigates the role of gender in motivating adult learners to persist in their learning. Once established, this will narrow the odds that could be created by gender, since the sample consisted of more females than males. This hypothesis aligns with Research Question 2. Moreover, hypothesis number two (2) sought to determine the association between barriers encountered and the motivation of adult learners to continue with their learning. This

hypothesis is linked to research question number three (3). The role of barriers could affect adult learners' motivation and ultimately determine the efficiency of the programs. The third hypothesis is linked to research question number four (4). It will address the socioeconomic factor of the highest level of achievement attained by the parents of adult learners, as well as the motivation of these learners to continue their learning in Antigua and Barbuda.

The research aimed to answer the research questions by administering a questionnaire to adult learners and conducting interviews with adult learners, heads of institutions, and Ministry of Education officials. Additionally, a review of curricula and gradebooks was conducted to examine the presence of andragogical principles. The extent to which these principles were used in the curriculum was determined by facilitators' use of them as tools for instruction and by adult learners' use in relation to the required learning outcomes. This will also determine if the programs are efficiently managed and motivating adult learners to transition into lifelong learning. This was linked to Research Question Number One (1).

CHAPTER 2: LITERATURE

2.0 Introduction

Adult education has been a fixture in the Antiguan and Barbudan society for decades, and the government has sustained it through its annual budget. However, there is no known record of how these programs were managed or their success. Adult education was only mentioned briefly in Antigua's Education Act (2008) and the revised Education Sector Plan 2022 – 2027. This research, therefore, aimed to investigate and provide documentary evidence on the efficient management of adult education programs at three tertiary institutions in Antigua and Barbuda. These programs needed to be measured to eliminate speculation about their success. Also, proper management and accountability of these programs are important if the retention of adult learners is to be realized (O'Neill & Thompson, 2013), as this could lead to their transition into lifelong learners. Moreover, since no such known research has been undertaken in Antigua and Barbuda, this could provide a foundation for further research in Antigua and Barbuda, the Caribbean, and beyond.

This chapter examined several research projects conducted in other parts of the world over the past few years. Since the focus of this research is the efficient management of adult education programs, the literature included an examination of andragogy as expounded by Knowles (1984), which focused on how adults learn best. Andragogy by Knowles (1980) was the theoretical framework used, so the researcher provided a brief history to emphasize its importance to adult learners. Moreover, since the research focused on adult learners and their enrollment in adult education programs, the researcher examined various definitions of adulthood and arrived at a definition of an adult learner grounded in Antigua and Barbuda's context. As such, adulthood was defined in accordance with the Age of Majority Act (1984) of Antigua and Barbuda. Additionally, since adult learners are deemed different from children

as learners, the literature defined what is expected of these types of learners. It expounded on one of the key assumptions about adult learners: self-directedness.

In addition, the literature noted the distinction between adult education and lifelong learning, as in some contexts both terms are used interchangeably. Based on this distinction, the researcher then discussed and formulated a definition of adult education. Also, the importance of both concepts to education was discussed to provide a clear understanding of their impact on the management of the adult education programs under study. The implications of both concepts for the Caribbean will also be discussed.

As my research will be centered on Antigua and Barbuda, a unitary state in the Caribbean, literature from the Caribbean will be highlighted as such literature is lacking in Antigua and Barbuda. Furthermore, as the management of adult education programs will be examined to determine whether they are efficiently managed, a historical perspective on management will be discussed. This will help determine whether proper management principles were upheld in the management of adult education programs. Based on different perspectives, the researcher developed a definition of management and then discussed how to determine whether management is effective. As effectiveness is intricately linked to efficiency (Alkaf et. al, 2021), the effectiveness of adult education programs will also be discussed. Moreover, educational management and its various models will be examined to determine whether management practices in adult education programs align with standard management practices.

Additionally, since andragogy plays a pivotal role in this research, the researcher felt the need to examine the models of andragogical assumptions by Knowles (2015, 1980), the use of andragogy in adult education, the relationship of adult education to andragogy, the relevance of andragogy in the teaching of adult learners, differences between the teaching of adults and

children, the application of andragogical assumptions by facilitators of adult education programs were highlighted.

The researcher began the literature search for this study in late 2017, after identifying that a study on the management of adult education programs in Antigua and Barbuda was needed. The researcher used ProQuest, EBSCOhost, ERIC, and Google Scholar for the literature review, in limited capacity. These were accessed mainly using the search engines Google, Google Chrome, and Microsoft Bing. Further, filters such as year and type of online databases (books, eBooks, journals, and articles) were used to narrow the search when the research was undertaken. The literature was filtered based on age and relevance to the research context; literature focused on adult education and lifelong learning in the Caribbean was mainly examined. Some key search words and phrases, such as adult, adult learner, education of adults, adult education programs, management, management of adult learners, efficiency, management efficiency, andragogy, theory of andragogy, model of andragogy, the concept of lifelong learning, motivational theory, motivation of adult learners, and barriers to adult learning were applied to the literature search. The researcher further used the abstracts to determine the suitability of specific content in the literature.

Although the search was limited to 5 years, the nature of the research required the researcher to refer to earlier publications in some instances. The researcher's literature review included journals, periodicals, and reports, such as those prepared by UNESCO and the OECD on adult education and Lifelong Learning. Seminal articles from researchers such as Knowles (1968), the model of andragogy; Jarvis (2010), *Adult Education and Lifelong Learning*; Cross (1981), *Barriers to Adult Learning*, formed part of the literature review. Moreover, the literature on the management of adult learning programs in the wider Caribbean sought to understand how these programs are managed and whether any differences emerged compared to Antigua. This proved challenging, as there is little up-to-date literature on managing adult education

programs in the Caribbean. As such, researchers such as Alfred et al. (2011) reviewed the literature on adult education and lifelong learning in the Caribbean. Additionally, during the search, the researcher ensured that all material used in the literature was peer-reviewed.

2.1 Theoretical Framework

The theoretical framework is the main structure that supports a theory (Swanson et al., 2013), which is the basis for selecting such a framework. This research emphasizes the management of adult education programs and their effect on lifelong learning in Antigua and Barbuda. This suggests that, if the programs are adequately managed, attention should focus on factors that could influence the management of adult education programs and on the elements that make them effective. Of critical importance is how teaching and learning take place, including curricula, the teaching and learning environment, and the mode of delivery used in the execution of adult education programs.

If the programs are appropriately managed, andragogy should play a key role, as it connects what is being taught in the classroom to real-life experiences (Knowles, 1984). Further, as Panacci (2015) asserts, the use of andragogy in teaching adult learners contributes to their development by fostering active interactions in the learning environment. Moreover, Chan (2010) postulates that teaching adult learners is less effective when they are taught using a pedagogical approach.

The management of adult education programs has implications for teaching and learning, mainly how information is imparted to learners. Many theories could have been applied to this research, including the three foundational theories of adult learning advanced by Merriam (2018): andragogy, self-directedness, and transformational. The nature of adult learners as distinct from children brings andragogy to the forefront since adult learners are self-motivated and should not rely on the teacher while engaged in the learning process but on themselves, as they are deemed to be responsible for their learning as well as being self-

motivated (Knowles, 1984). Since the management of adult education institutions will be examined, the programs must consider the role of adult learners in the learning process (El-Amin, 2020).

Many theories have been examined as possible theoretical frameworks for this research, which focus on learners being the best they can be and stimulating their personal growth and development. These theories include behaviorism, cognitivism, constructivism, and andragogy (Arghode et al., 2017). One theory of behaviorism focused on stimulus and response. As such, it requires the facilitator to identify the appropriate stimuli to reinforce the desired behavior among learners (McLeod, 2003). This could create a challenge for the facilitator, who would need to monitor the environment to elicit the desired behavior. Additionally, the cognitivist theory holds that learners must reorganize their experiences to make sense of environmental stimuli (Merriam and Caffarella, 1999, as cited in McLeod, 2003). To achieve effective results, the facilitator needs to pay attention to the tasks to be completed in the learning environment and to the curriculum design.

According to this theory, learning is meaningful only if it is already within the learner's cognitive framework. Also, learners are required to work within a fixed set of goals and objectives, which tends to limit the learner's potential for learning (Merriam and Caffarella, 1999, as cited in McLeod, 2003). Further, constructivism, as advanced by Boethel and Dimock (2000, as cited in McLeod 2003), takes into account learners' prior knowledge. Although this theory allows the facilitator to develop content from multiple perspectives, it can be stressful for the facilitator, as learners cannot be adequately evaluated because they bring a myriad of experiences to the learning process. As for the andragogical model or theory, it promotes the concept of adults being self-directed, allowing learners to take control of their learning and benefiting both facilitators and learners (Knowles, 1980). In addition, it can be implemented in some institutions, making the theory broader based. Also, it benefits adult learners by preparing

them to use their knowledge and experience gained from the learning process in the world of work (Knowles, 1984).

The researcher chose andragogy by Knowles et al. (2014) because the way adult education programs are managed hinges on it. Furthermore, because part of the theory chosen will deal with the concept of self-directedness and the research will be dealing with adult learners engaged in the process of education, the researcher decided on the application of andragogy, which is the “art and science of helping adults learn” (Knowles, 1980, p. 43). Andragogy as a theoretical framework in this research supports how the heads of institutions manage adult learning programs.

The philosophy underpinning the practices implemented in adult education programs will, in turn, determine how adult learners acquire knowledge and how individuals' skills and abilities are developed (Mukhalalati et al., 2019). Once the humanistic approach, as advocated by Knowles (1988), is adopted by managers of adult education institutions, curricula, objectives, and ways of evaluating adult learners will change, thereby enhancing learners' learning experiences (Mukhalalati et al., 2019). Therefore, andragogy, as a theoretical approach, would promote the development of individuals and enable student-centered learning. Hence, this could be used as the benchmark for ascertaining if adult learning programs in Antigua and Barbuda are efficiently managed once all aspects of andragogy are implemented.

Moreover, the researcher believes that using this theory in the research will help managers and facilitators of adult education programs better cater to the needs of adult learners. Additionally, andragogy is designed to make adult learners feel comfortable as they engage in their learning (Knowles, 1980). Also, adult learners should feel “accepted, respected and supported.” Promoting “a spirit of mutuality between teachers and students as joint inquirers” (Knowles, 1980, p.47). Moreover, the fact that the theoretical framework or model of

andragogy comprises elements of humanism, constructivism, and cognitivism, which, to one extent or another, have elements embedded in andragogy.

This theoretical framework, as advanced by Knowles (1968), can assist the researcher in determining if the adult programs are adequately managed and contribute to their continued learning. The term andragogy was first used in 1833 by Alexander Kapp, a German teacher in 1833 (Loeng, 2017), who promoted the concept of the Greek Philosopher's ideology of learning in individuals that will continue into adulthood (Baumgartner, 2003). Malcolm Knowles later popularized this in the United States in the late 1960s. Additionally, Malcolm Knowles followed up on Lindeman's (1926) work, who posited that if learning is to be continuous and viewed as a lifelong goal, it must be understood at the adult stage. Knowles's (1980) theory was initially based on four assumptions: adult learners' self-directed self-concept, the transfer of experience to their learning, immediate application of knowledge, and their willingness to learn based on what they have garnered in their roles as social beings.

Two other assumptions, intrinsic motivation and adult learners' preparedness to learn, were later added. If learning is to be meaningful for adult learners, their own experiences should play a significant role, as postulated by Merriam et al. (2007).

Notwithstanding the assumptions made by Knowles (1984), which can prove to be useful in how the adult education programs in Antigua are designed, they have their limitations as they do not consider the socio-economic factors associated with each learner such as social class, age, gender, and income (Sandlin, 2005) and the impact these would have on the adult learners. However, researchers such as Jarvis (2006) view the learning individuals gain as arising from their lived experiences, suggesting that learning should be viewed as a lifelong process. Therefore, the perspectives of Jarvis (2006) and Merriam et al. (2007) differ from that of Knowles (1984). As Jarvis (2006) posited, adult learning is not necessarily different from that of children. By examining the management of these programs in the context of andragogy,

as suggested by Knowles (1980), the researcher would determine whether adults enrolled in these programs are taught differently by analyzing a sample of curricula and interviewing adult learners and facilitators.

In today's world, andragogy is widely accepted as a theoretical concept in adult education programs (Kelly, 2013). The researcher has also perused a plethora of articles using the theoretical framework. Among them are articles written by Desta et al. (2022), Suh et al. (2020), Merriam (2018), Ornelles et al. (2019), and Allen et al. (2016). Therefore, the researcher decided to use this theory, as it is believed that if programs are adequately managed with adult learners at the forefront, they should be designed accordingly (Merriam, 2018). This has implications for how the curriculum is developed and the imparting of instruction to adult learners (Desta et al., 2022). The use of such a theoretical framework could also help determine whether adult learners enrolled in these programs are transitioning into lifelong learners, since Cadorin et al. (2017) believe that learners must be self-directed to be lifelong learners. Also, using andragogy will allow the researcher to explore how the adults feel about the learning process.

Furthermore, an extensive body of literature indicates that adults should be taught differently, as their learning differs from that of children (Desta et al., 2022). It will also provide an avenue to determine how adult learners enrolled in these programs are taught and to highlight the extent to which their learning is affected.

As such, it should answer the research questions that form part of this study and highlight whether adult learners in Antigua who engage in adult education programs are motivated to continue learning. Applying the theory could also help the researcher determine whether the use of andragogy in Antigua yields the same results as in the wider Caribbean. It could also help to determine the extent to which adult learners enrolled in the programs are motivated.

Since the assumptions posited by Knowles (1984) do not account for socio-economic factors (Sandlin, 2005), the researcher will examine the barriers that may prevent adult learners from entering the learning process (Cross, 1981). Some of the barriers identified by Cross (1981) are labelled circumstantial and could prevent an adult learner from participating in learning. Another is as institutional barriers that could deter adult learners from participating in the designated program because of the discomfort with the curriculum, mode of delivery, and other factors that are not conducive to the adult learners participating in the programs and dispositional factors which refer to an adult learner's perception of their ability to seek out, become a part of, register and pursue adult education programs.

Another barrier highlighted by MacKeracher et al. (2006) was also examined in the research. This type of barrier focused on individuals who, due to their prior educational situation, might not have the requisite qualifications to enroll in specific adult education programs (MacKeracher et al., 1992). Other factors that affect adult learners' enrollment in adult education programs, such as age, gender, employment status, and educational attainment, as reported by Rubenson et al. (2009), were also discussed. Furthermore, the role of a system of neo-liberalism, as asserted by Desierto et al. (2020), is significant to this research. The researcher will further explore the theory of Motivation by Wlodkowski et al. (2017), which states that adult learners must feel respected, and the learning environment must be conducive to all learners. To better understand the type of learners enrolled in adult education, the characteristics of the adult learners will be examined.

2.2 The Adult Learner

Balakrishnan (2021) indicates that adult learners can be defined in many ways. Social roles, age, and self-perceptions can define such learners. Additionally, researchers such as Bourke (2014) use a democratic description that includes their age and whether they are full-time or part-time learners. Moreover, another scholar, Macdonald (2018), has cited that many

criteria define adult learners. Among these criteria are individuals who have attained the age of 25 and have waited for one year after completing secondary education before entering college. In support, Cornelius and Gordon (2009, as cited in Balakrishnan, 2021) concluded that adult learners are “incredibly diverse, needs and preferences” (pg. 241). They also possess a diversity of attributes, including experiences, opinions, learning styles, religion, gender, and race. In support, Kapur (2015) highlighted that “Adult learners comprise a diverse group of people belonging to different genders, cast, class, religion, region, majority or minority groups, creed, race, ethnicity varying from each other in their needs, problems, requirements, attitudes and outlook towards life (p. 111).

In addition, from Malcolm's (2010) perspective, adult learners are individuals over 25 years of age, and most have returned to school after being out of formal schooling for a period of time (p. 19). However, for this research, the researcher will use the term adult learner, as defined in the context of Antigua and Barbuda, to mean any individual who attains the age of 18 (Cap 11 S2 of the Age of Majority Act 1984 (Antigua).

To better understand adult learners, it is imperative to recognize that learning is a continuous process that does not begin when an individual becomes an adult (Kapur, 2015). Additionally, since the educational needs of each adult learner vary, these needs must be met by peers who manage the learning institutions or facilitate their learning, as, unlike with children, the learning is intrinsically motivated (Kapur, 2015). Contrastingly, Jarvis (2006) does not necessarily believe that adults learn differently from children. Kapur (2015) further asserts that the autonomous nature of members of this group of learners makes it unique, as, unlike children, they bring their own lived experiences to the learning process. As such, adult learners have varying views, and as articulated by Kapur (2015), they are “distinctly different from each other in terms of needs, problems, requirements, attributes, and outlook that they

bring to the learning situation” (p. 114). These factors provide the platform for the practice of adult learning theory (Knowles, 1980).

There are many ways of determining who constitutes an adult, and the next section will examine this to arrive at a description of the individual being highlighted in this research.

2.2.1 Determinant of Adulthood

Adult education programs play a significant role in any society. One of the key players in the management of adult education programs is the adult learner. The significance of these learners necessitates that the researcher presents a clear understanding of their characteristics and how they learn. As Ho and Lim (2020) assert, the determinants of adulthood differ across societies and cultures, and it is therefore not easily defined. However, it is common practice to define adulthood based on an individual attaining a particular age. However, this yardstick cannot be used to ascertain who qualifies as an adult learner as this could be problematic (Johnson et al., 2016) Although most societies use age as a determinant of adulthood, that thinking could be flawed, as it is expected that the older an individual grows into adulthood, the more responsibilities they assume (Johnson et al., 2016). Nonetheless, this is not the case in recent times, as younger individuals who are not quite adults may be saddled with more responsibilities associated with adulthood (Johnson et al., 2016).

Despite the anomalies in determining adulthood, Ho and Lim (2020) highlighted several agreed-upon factors that can be used as espoused by Fairchild (2003, as cited in Ho and Lim, 2020). Individuals deemed adult learners assume various roles as parents, children, employees, and, at times, employers. These roles entail many responsibilities and commitments. As further highlighted by Fairchild (2003, as cited in Ho and Lim, 2020), most adult learners enroll in part-time rather than full-time programs. These yardsticks, which are used to determine adulthood, appear to be shifting as younger individuals leave school and juggle as many roles as adult learners (Panacci, 2015).

In agreement, researchers such as Forrest et al. (2006) believe that, regardless of the descriptors used and the age of individuals, adulthood is determined by whether they are performing social roles and how they perform in those roles. The level of acceptance of social and economic responsibility that an individual accepts is another measurement of adulthood that can be used, as “there is no one moment when we suddenly flip over from being a child to being an adult” (Gubar, 2013, p. 454). The process of adulthood requires individuals to acquire the necessary skills and demonstrate maturity, readiness, and the ability to take on the responsibilities entrusted to them (Williams, 2018). An individual would have attained adulthood; therefore, once they are fit to assume responsibility for their own life, they can assume roles as a parent, wife, or citizen (Knowles, 1980).

In addition, researchers such as Herzog (2020), Gubar (2013), and Klimczuk (2016) believe that the attributes individuals possess define them as having attained adulthood. In recent times, adulthood has been defined by several attributes across different disciplines, which together provide a holistic description of the individual. According to Herzog (2020), these disciplines are categorized into biological, educational, legal, and philosophical disciplines. It is believed that as individuals advance through life, they progress through a set of developmental phases and become adults upon reaching maturity (Herzog, 2020). Further, the phases of adult development will be evident as the individual displayed changes in response to age-related demands arising from the environment in which he interacts (Herzog, 2020).

Adulthood is further defined by Lovell (1980) as “the time when the basic skills and abilities which were so rapidly acquired in childhood, are consolidated and exploited to the full and many new skills and competencies are learned.” (p.13). Further, once an individual is mature and transitions from dependence to autonomy, they are deemed to have achieved adulthood (Wolf, 2013). According to Wolf (2013), such an individual must be at the age of consent and must be able to accept responsibility.

Generally, attaining adulthood is viewed as the stage in an individual's life when the overall development of males and females reaches its climax (Klimczuk, 2016). However, while generalizations can be made about how adulthood should be defined, Kimczuk (2016) postulates that the determination of adulthood varies across countries, depending on the levels of socio-cultural and economic factors in each country. In contrast, the World Health Organization (2018) defines an adult as an individual who is at least 19 years of age, unless the laws of the country in which the individual operates specify otherwise. In Antigua and Barbuda, age is used as a defining factor of adulthood.

As highlighted in Cap 11 S2 of the Age of Majority Act 1984 (Antigua), an adult is denoted by an individual who attains the age of 18 years. However, it is believed that, having reached a satisfactory age, which brings about an acceptable level of maturity, an adult can withstand the rigors of life but might not be able to meet the requirements of learning institutions that promote conventional learning (et al., 2014). Despite age requirements for adults to enter adult education institutions in some countries, UNESCO (2015) noted that it is not unusual for individuals to engage in adult learning programs even if they are not yet at the legally prescribed age of maturity. They are considered adults once they can adapt and perform sustainably while acquiring knowledge through interactions in the learning environment (UNESCO, 2015).

Based on the definition of an adult, the expectations of adult learners will be examined to identify the learning best suited to them. An adult learner enrolled in an adult education program will be examined.

2.2.2 The Expectations of the Adult Learner

Adult learners are a culturally diverse group who, by their age, enter the learning environment years after completing high school. Hence, they are referred to as non-traditional learners (Ross-Gordon, 2011, as cited in Saunders, 2019). Since these learners enter the

learning process with a wealth of experience, family, and other responsibilities, they expect the process to address any challenges they encounter (Falasca, 2011, as cited in Saunders, 2019).

The way adults learn is significant to educational systems worldwide, as it clearly explains their learning in formal, non-formal, and informal institutions (Owusu-Agyeman, 2019). These learners can engage in three categories of learning. Formal learning is a part of educational institutions and is structured and organized. In contrast, non-formal learning takes place in institutions that offer programs distinct from those offered in formal institutions (Owusu-Agyeman, 2019). Unlike formal and non-formal learning, informal learning is described by Owusu-Agyeman (2019) as ad hoc and occurring throughout an individual's life.

As espoused by Comings (2023), when adult learners engage in adult learning programs, they expect the programs to be structured to propel them toward achieving their goals. Such learning can be formal or non-formal (Owusu-Agyeman, 2019) and could form part of their lifelong learning as it is also coupled with informal learning. Also, once these learners engage in the learning process, they become its drivers (Alajlan, 2015). These learners possess a wealth of knowledge and experience upon entering the learning process and are active recipients (Knowles et al., 2005). These learners generally enjoy learning and are positive about life (Lee et al., 2019). Such individuals also view learning as experiential, using what they have learned in the learning environment (Knowles, 1980; Knowles et al., 2014; Tomei, 2011). In addition, they display independence and a willingness to gain more knowledge based on their experience (Knowles et al., 2014). Although adult learners tend to possess a wealth of experience, their experience level is shaped by their social roles or by taking a new life pathway (Hoggan, 2016). Further, as purported by Knowles et al. (2011), Tomei (2011), and Knowles (1980), adult learners may be part of their learning endeavor because they believe that such training can immediately enhance their lives; therefore, they approach their learning with a sense of purpose. Additionally, the nature of adult learners, as purported by Knowles (1980),

reveals that they are self-directed. However, this does not necessarily hold for all adult learners, as in some cultures, they are socialized differently. Some cultures may prefer a teacher-centered learning environment (Bashir, 2016). Moreover, some adult learners are labeled self-motivated but may not work independently and may require assistance from the facilitator (Chen, 2014). Since the self-directed characteristics of adult learners are a critical factor to the theory of andragogy, this will be explored further.

2.2.2.1 Self-directedness in andragogy. The concept of adult learners being self-directed is a long-standing one. It needs to be understood if it is to be properly used by managers and, more specifically, by facilitators of adult education programs (Loeng, 2020). This concept, as posited by Knowles (1980), emerged from the work of Houle (1961), who advocated that adult learners could work on their own and in groups or institutions. This belief was also supported by Tough (1967), who argued that adult learners increase their knowledge, skills, and abilities by spending time working on projects such as reading, observing situations, enrolling in and participating in courses, and engaging in active listening. Moreover, as Knowles (1980) argued, if adult learners are self-directed and responsible for their own learning, the focus of the learning process necessitates a shift from a teacher-centered to a student-centered approach. This places adult learners at the centre of the learning process (Knowles, 1980), instead of teachers. According to Loeng (2020), this creates a challenge as not all adult learners are self-directed as this is not a natural tendency. Loeng (2020) articulated that being directed is dependent on social factors such as the culture, nationality, race and the employment status of the adult learners who enter the learning process. Self-directed learning should be a major requirement in any formal educational setting Morris (2019) as it could be of great assistance to adult learners who wish to own the learning process. Managers of adult education programs should pay attention and be aware of what self-directed learning entails. Different researchers have their own conceptualization of self-directed learning (loeng, 2020),

therefore it is imperative that self-directed learning is not defined in a singular way, but that is viewed from different perspectives as indicated by Loeng (2020) to avoid confusion in its meaning. Adult learners who are involved in self-directed learning do so in either a formal or informal setting, but if engaged in a formal context are usually directed by facilitators who assist them throughout the learning process (Loeng, 2020). In support, Jarvis (2004) suggests that self-directed learning is a teaching method which can be deemed as an educational technique which has replaced the traditional teacher centred method with a more student centred-approach to teaching and learning. As such, facilitators who are involved in this process encourage learners to access information and assist these learners to access meaningful information which is required during the learning process (Bosch et al, 2019). Self-directed learning is gaining significant momentum as an important tool, and tertiary institutions should therefore be aware of its benefits for adult learners (Toit-Brits & Van Zyl, 2017). Adult learners who are self-directed tend to be more autonomous, develop self-awareness as well as acquire skills that will propel them throughout their lives as they continue to learn (Spencer and Jordan, 1999 as cited in Tekkol and Demirel, 2018). These students play major roles in their learning such as determining their learning strategies and goals and are involved in the selection of their learning resources (Boyer, et al., 2014 as cited in Mentz de Beer, & Bailey, 2019).

The managers of adult education programs must understand and ensure that self-directedness is encouraged among adult learners by fostering a learning environment conducive to this characteristic (Boyer et al., 2014, cited in Mentz, de Beer, & Bailey, 2019). In addition, several models can be adopted by managers to promote self-directed learning. The model advanced by Garrison (1997, as cited in Rosales and Junithesmer, 2022) and Brockett and Hiemstra's (1991, as cited in Rosales & Junithesmer, 2022) will be examined by the researcher. The models advanced by Garrison (1997, as cited in Rosales & Junithesmer, 2022) described self-directed learning using a comprehensive model comprising three dimensions. The first is

about controlling tasks, which he labels self-management; the second is centred on how adult learners monitor their own learning, which involves their cognitive ability; on the motivation of adult learners, which involves entering the learning process; and on adult learners' ability to undertake tasks. In comparison, Brockett & Heimstra (1991, as cited in Rosales & Junithesmer, 2022) are proponents of the model, which emphasizes personal responsibility as the main catalyst guiding self-direction in learners. It is regarded as both a process and a goal that enables learners to take responsibility for and control their learning. As a process, learners are in control of their learning and ensure that the requisite learning takes place (Nasri & Mansor, 2017).

Irrespective of the method used by educational institutions in promoting self-directed learning among adult learners, as highlighted by Knowles (1980), it is necessary that adult learners are to survive the rigors of today's world with the rapid change in information. As Morris (2019) advocates, this should be a significant requirement in any formal educational setting. However, the managers of adult education programs should understand that such learning can be highly personalized to individual learners' goals and the context in which they function (Morris, 2019a). It could prove problematic, as it aligns with the teacher-centred approach to learning. As such, adult learners could adapt behaviours after repeated engagements, where individuals' behaviour becomes inflexible and they fail to see the need to change it based on their context (Morris, 2019). Alternatively, if self-directed learning is viewed as a process from a constructivist perspective (Kranzow and Hyland, 2016), it will prepare individuals throughout their lifespan, allowing for the adoption to change as required.

Self-directed learning is influenced by differences which arise from society that views individuals as being motivated to be self-directed. It is also centred on individuals' personal differences (Morris, 2019). It is therefore important that attention be drawn to these. According to Merriam (2018), factors in the society in which an individual is connected can influence how learning takes place, and hence, individuals need not be self-directed.

Furthermore, individual learners' characteristics could play a pivotal role in the extent to which they are self-directed (Barry & Egan, 2018). Some recent empirical studies have suggested a correlation between a learner's self-directedness and four notable personality traits (Barry & Egan, 2018). These traits are identified as the conscientiousness of the learner, the open nature of the learner, the level of confidence displayed by the learner, and their level of ability to complete assigned tasks.

The importance of self-directed learning should not be ignored, especially given the increased interest in applying it to learning (Bonk et al., 2015). As such, it should be taken into consideration in the teaching of adult learners (Morris, 2019).

Having examined a key component of adult education, the researcher will now examine the role of adult education in lifelong learning to ascertain the relationship between the two concepts.

2.3 Towards a distinction between adult education and Lifelong learning

Adult education, as distinct from lifelong learning, is defined by the UNESCO Institute of Statistics as education for individuals who have reached the age at which they are responsible for their actions. As further iterated by the UNESCO Institute for Statistics (as cited in Faradova, 2020), adults enroll in this form of education to recap knowledge gained from specialized training, return to complete their formal education, and acquire the skills needed to function in a new area of expertise. Theorists of adult education believe that adult education involves programs designed to help people improve their lives. As espoused by Popovic and Koulaouzides (2017) “adult education emerged from the needs of adults to bring about social change, to improve their life, to solve actual problems and to understand social reality” (p. 1).

Furthermore, to keep abreast of technological, information, communication, and educational changes, countries must ensure they remain up to date (İliç, 2019). As such, individuals develop themselves in a formal education system throughout their lives

(Allmendinger et al., 2019). Hence, attention is now paid to lifelong learning in which all stages of life, including adulthood, need to be examined (Karakoc, 2021). While adult education is about programs that enhance an individual's life by equipping them with new knowledge, skills, and abilities (Wang et al., 2016), the notion that learning takes place throughout the individual's life (Roosma & Soar, 2017) epitomizes lifelong learning.

The concept of lifelong learning focuses primarily on providing formal courses to adult learners enrolled in educational institutions (Poquet et al., 2021). Lifelong learning is a process described by many researchers, including Poquet et al. (2021), as a system in which individuals learn and make meaning by using available educational systems. Lifelong learning is therefore geared toward equipping individuals with the knowledge and skills to make meaningful contributions to society (Poquet et al., 2021). It also contributes to countries' economies by producing productive citizens, since, as individuals grow, they should be able to adapt their skills to changes in demand in these economies (Poquet et al., 2021). As further articulated by Poquet et al. (2021), to remain effective as lifelong learners, individuals' learning transitions throughout life need to align with educational institutions and workplaces. Support must be provided for any challenges these individuals face, as they undergo multiple transitions and career changes throughout their lives (Poquet et al., 2021). Transitions in education may be described as ongoing changes in an individual's life, including psychological, educational, and social aspects, as they transition from primary to secondary education (Poquet et al., 2021). Additionally, as articulated by Gale and Parker (2014), transitions are related to a higher level of education, as individuals enter new roles and environments, which serve as pathways to their development, depending on context.

Field (2001) further asserts that when individuals engage in some form of activity throughout their lives to improve their knowledge, skills, and abilities, which will ultimately help them become competent in a particular field, they are engaged in lifelong learning. Such

learning could be related to their work and social lives or benefit them personally (Field, 2001). In this regard, learning should take place throughout life and in all contexts, and provide avenues for improving basic skills for individuals who may have missed opportunities earlier in life (Laal, 2011).

Barriers to lifelong learning differ from one individual to another. Sinel (2011) emphasizes that what prevents one from engaging in lifelong learning differs from individual to individual. For some individuals, financial barriers may be responsible for non-participation, while for others, it may be cutbacks in their work environment. Moreover, as highlighted by Longworth (2003), barriers exist that can prevent individuals from engaging in lifelong learning. Individuals can encounter negative childhood experiences, have low aspirations and poor self-esteem, or have a poor family culture around learning (Longworth, 2003). In addition, individuals can experience barriers to becoming lifelong learners because they come from an underprivileged family with minimal financial and study resources (Longworth, 2003). For some individuals, barriers arise from not being able to access education due to not being qualified, or from recruiters not doing enough to attract them, such as inadequate information being disseminated (Longworth, 2003).

Moreover, based on four pillars proposed by Chibita (2012), lifelong learning could impact individuals by equipping them to master learning tools as against receiving structured knowledge and trying to make sense of it; providing the skills required now and in the future; teaching individuals how to be productive citizens, living together with others and foster social inclusion and economic resilience and impacting individuals holistically by developing their mind, body, and intellectual capacity. Significant benefits can be derived from individuals engaging in lifelong learning, as asserted by Nordstrom and Merz (2006). These benefits mean that the natural abilities will be developed, and they will grow up being open-minded and will be curious, and hungry for knowledge, which will make them wiser (Nordstrom & Merz, 2006).

As further articulated by Nordstrom and Merz (2006) lifelong learners will readily adapt to change, be active contributors to society, and generally be beneficiaries of fulfillment and enriched lives. It also creates a pathway for adult learners to establish meaningful friendships and improve the world (Nordstrom & Merz, 2006). Despite the benefits of lifelong learning, not all individuals will choose to learn throughout their lives, and everyone's life is different (Billett, 2018). Lifelong learning is, therefore, an individual's choice based on their social context and other factors (Billett, 2018). To understand what is involved in adult education, the concept will be examined in the next section, along with a definition of the term.

2.3.1 Definition of Adult Education

Adult education has as its main thrust the way adults learn and how they use that learning to contribute meaningfully to the societies in which they are a part (Collins, 2021). Further, Deggs and Boereni (2021) asserted that the activities in adult education are designed to meet the needs of adult learners. The importance of adult education should not be understated, as it is geared toward equipping individuals with the requisite knowledge and skills to change their lives economically and socially (Chang, 2020). Despite its global popularity as a way of equipping adults with the skills needed to be productive citizens, it has been seen by many as supplementary education, not worth the financial investment, and not scientifically defined (Chang, 2020). To reiterate the notion of adult education being supplementary, Brown (2020) states that Adult education offers second chances to people who missed out on their earlier education, and first chances to people who never had the chance to go to school. Adults who learn have a positive impact on their families, too (pg. 13). Regardless of the connotations associated with adult education, Brown (2020) asserts that it brings significant benefits to adult learners. Among these are mental and physical health, improving family life, fostering in participants a sense of civic responsibility, and instilling in them the

attitudes and behaviors needed to be good citizens (Brown, 2020). Notwithstanding all that is said about adult education, it is necessary to attempt to arrive at a definition.

Over the years, arriving at a definition of adult education has primarily been contingent on the viewpoints of those attempting to define it and, perhaps, on the context in which adult education is to be managed (Merriam, 2007). According to Knowles (1980), andragogical assumptions, adult learners' characteristics differ from those of children, and therefore, adult learners should be taught differently. Furthermore, the experiential nature of these adult learners dictates that learning be focused on improving qualifications for specified individuals, who, in turn, will be equipped to contribute to their economies' social and economic sectors (Zarifi, 2009).

Adult education is defined differently depending on the context in which it is stated. According to UNESCO, it is described as an organized process that uses various methods and content to educate adults. However, this type of learning occurs in various contexts, including universities and colleges. Kapur (2019) further asserted that such education is required to upgrade the knowledge, skills, and abilities of adult learners throughout their lives. Moreover, adult education caters to adults who are out of school, have dropped out of school, or have irregular school attendance. It equips learners with various disciplines of knowledge to prepare them for life and provides solutions for any problems that may arise.

In defining this type of education, Rogers (1996) describes it as all the purposeful activities planned for adults who have left the formal education system. Such training is deemed to take place more in informal and nonformal settings than in formal ones (Rogers, 2014). Another definition, posited by Merriam et al. (2007), views adult education as a process in which adults engage in sustained, systematic learning activities to increase their knowledge, skills, and attitudes. Additionally, according to the United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2015), adult education is defined as all forms of education

and learning that aim to ensure that all adults participate in their societies and the world of work. It denotes the entire body of learning processes, formal, non-formal, and informal, whereby those regarded as adults by the society in which they live, develop and enrich their capabilities for living and working, both in their interests and those of their communities, organizations, and societies (para.1). It is further described by the European Commission (2006) as “all forms of learning undertaken by adults after having left initial education and training” (p. 6). Adult education, as further described by Kapur (2019), involves adult learners involved in learning activities that are properly planned to ensure that learning and understanding of what is taught take place. Adult education can take place in many different settings, such as formal, informal, or non-formal (Kawalilak & Groen, 2021). According to Cedefop – European Centre for the Development of Vocational Training, formal education includes planned, intentional learning that awards participants credentials upon completion. In contrast, non-formal education usually spans beyond formal education and may not necessarily offer any credentials at the end of the learning process. Such learning is usually based on the needs of the adult learners who participate.

Alternatively, informal education takes place throughout an individual's lifespan and is often spontaneous as individuals navigate through life. In the context of Antigua and Barbuda, adult education is best defined by UNESCO (2015) as learning that takes place whether in a formal context, since three adult education institutions with planned and intentional learning opportunities are used in this research.

Adult education is universally believed to promote productivity worldwide, employment, gender equality, and general world safety (Ekuri et al., 2022). Therefore, a sound understanding of adult education and lifelong learning is necessary in managing adult education programs. This understanding will provide insight into the requirements for managing these programs and help determine their interrelatedness.

2.3.1.1 Principles Governing Adult Education. Adult education programs are designed to address adult learners' needs, such as filling gaps in their education and developing basic literacy and numeracy skills (UNESCO, 2015). They also provide opportunities to contribute to adult learners' leisure and personal development, and equip learners to participate in the democratic process and in their social lives.

Based on the theory of Andragogy as posited by Knowles et al. (2014), for adult education programs to be effective, their management needs to embed andragogy principles in the curriculum and the teaching and learning environment. Knowles et al. (2014) assert that adult learners are motivated intrinsically and also labelled as being self-directed, identifying what they need to learn and achieve in the learning process. Additionally, adult learners bring their real-life experiences and knowledge into the learning process and use these experiences to make sense of what is being taught. This type of learner also needs to see the relevance and practicality of what is being taught for learning to be effective. Most importantly, adult learners need to feel respected; otherwise, their learning may not be fully effective.

Once the management of adult education programs adheres to these principles, adult learners should become more motivated and will perhaps transition to lifelong learners.

2.3.1.2 Relationship of adult education to andragogy. In addition, UNESCO (1976) used the terms andragogy and adult education interrelated. The significance of the relatedness will therefore be examined by defining adult education thereby demonstrating the connectivity of both concepts. Adult education is defined by UNESCO (1976) as the entire body of organized educational processes, whatever the content, level, and method, whether formal or otherwise, whether they prolong or replace initial education in schools, colleges, and universities as well as in apprenticeship, whereby persons regarded as an adult by the society to which they belong develop their abilities, enrich their knowledge, improve their technical or professional qualifications or turn them in a new direction and bring about changes in their

attitudes or behavior in the twofold perspective of full personal development and participation in balanced and independent social, economic and cultural development (pg. 59). As stated by UNESCO (1976), and following the definition of adult education given above, the concept of andragogy is therefore concerned with how adult learners process the knowledge acquired from their learning process while they are engaged in adult education.

2.3.1.3 Relevance of andragogy in the teaching of adult learners. Since andragogy is based on the art of how adults learn (Knowles, 1984), and the aim of adult education is for the learning of the adults to be meaningful and at a coordinated pace (Ajani, 2021), facilitators of adult education programs should ensure that learning is purposeful by implementing andragogical concepts in their planning. Also, facilitators need to incorporate the life and work experiences of adult learners into their learning if learning is to be of significance to learners (Knowles et al., 2015). It is, therefore, imperative that the curriculum is designed and instruction is being imparted to adult learners, and this needs to be addressed in a significant way to reflect the needs of the learners. For effective teaching and learning among adult learners, Knowles et al. (2015) contend that teachers in the andragogical model must avoid focusing mainly on planning content and transmitting information in the learning environment. Instead, they must deliver content and focus on “relationship building needs assessment, involvement of students in planning, linking students to learning resources, and encouraging student initiative” (Knowles et al., 2015, p. 254).

According to Maddelena (2015), the success of adult education programs would require that facilitators of these programs be specially trained to facilitate adult learning in the 21st century. Such facilitators do not transmit knowledge to learners; rather, they facilitate learning (McCabe & O’Connor, 2014). Further, when adult learners come to the classroom, facilitators must be aware that they do so with their life and career goals already defined (Tomei, 2011). As such, when they come to the learning process, as articulated by (McCabe & O’Connor,

2014), they need to know why they are learning and what is being taught to make sense of their learning and ascertain the need for such learning. Following Knowles's (1984) andragogical assumptions, attention needs to be paid to curriculum development, course design, and the writing and structure of assignments (El-Amin, 2020), as these contribute to the success of adult education programs. Adults who engage in such learning are best suited to assignments that they can complete without assistance (El-Amin, 2020).

From the context of the applicability of andragogy in tertiary educational institutions, the descriptive property that defines tertiary education in this research will first be presented, followed by the application of andragogy and its effect on these institutions. According to Lambert (2020), tertiary education is described by Lambert (2020) as taking place after completing compulsory education. Lambert (2020) views it as a means of bridging the gap between completing compulsory education and providing the skills individuals need to perform adequately on the job.

As further postulated by Lambert (2020), no upper age limit is set for individuals who wish to engage in lifelong learning. Therefore, individuals can engage in this type of learning at any time after completing tertiary education. Based on both definitions, the key themes are institutions of learning that offer formal tertiary education. In this regard, the theory of andragogy, as advanced by Knowles (1980), contends that facilitators of adult education programs are a key component in determining the success of the learning that takes place in these programs (Knight, 1999). Therefore, facilitators are key to providing a supportive environment for adult learners' learning success. Hence, facilitators involved in adult training need to be adequately trained, as they are experts in the content area and are required to impart knowledge effectively to students (Knight, 1999). It is also important that facilitators teaching adults in tertiary institutions build genuine relationships with their students, fostering better understanding between both parties (Taylor & Laros, 2014). As further asserted by Taylor and

Laros (2014), such an approach will help students gather new knowledge and learn what is being taught. Furthermore, based on Knowles' (1980) andragogical assumptions, the facilitators should be able to motivate their learners by teaching with high enthusiasm, which would trigger their intrinsic motivation. While andragogy cites intrinsic motivation as part of adult learning research, such as Misch (2002), highlights that it would be difficult to determine if adult learners are motivated intrinsically or extrinsically, since this is contingent upon the learning context.

Furthermore, as indicated by Knowles (1980), because adult learners come to the learning environment with a great deal of experience, these facilitators should possess the traits that result in a nurturing environment for learners that will inspire them to adopt the new knowledge being imparted. If facilitators allow learners to use their wealth of experience in the classroom, learning will be facilitated (Knowles et al., 2015). Another of Knowles's (1980) assumptions indicates that adult learners, with their wealth of experience, learn what they can apply to their immediate situations. However, the extent to which this holds across all learning situations is questionable, as learners in some disciplines do not need to apply what they have learned immediately. As suggested by Weinberger (2015), if the andragogical principles are to be applied to the teaching of adult learners, the facilitators involved in their programs need to be au fait with a wide range of teaching strategies to extract and correlate the past learning experience of the adult learners, which in turn will enable new learning to take place. In addition, Li et al. (2015) posit that facilitators of adult learning institutions can adopt a constructivist approach in the learning environment, as it encourages collaboration through its student-centered approach. Therefore, if learning among adults is to be successful, facilitators in adult education programs should ensure that the environment supports successful teaching (Knowles, 1980). Moreover, despite criticism of andragogy, researchers such as Holton et al. (2008) view this learning theory as suitable for improving performance among adults. In this

regard, perceived differences, if any, between the teaching of adults and children will be examined.

2.3.1.4. Types of Adult Education Programs. Adult Education Programs are an important facet of any society, as the skills of the citizenry are to be developed to enable its development. As advocated by Sandiford (1991), the tendency is for adult education programs developed by any country to be designed around the needs of communities and the development of individual skills. There are a myriad of adult education programme types that equip adult learners with the skills needed to become productive citizens (Boeren et al., 2017). This research is based on the types of programs described below, as highlighted by Boeren et al. (2017).

Higher Education Institutions can be private or publicly owned and offer higher education courses tailored to individual interests. These institutions offer courses such as foundation degrees; national certificates; national diplomas; vocationally oriented degrees, and postgraduate qualifications, which are delivered both internally or possibly externally. These programs are primarily available to adult learners who have completed basic adult education programs and are motivated to continue learning. Such programs are available to adult learners in Antigua and Barbuda and are delivered by publicly owned institutions. For individuals interested in pursuing an alternative curriculum geared toward young adults aged 14 – 19, they can enroll in a University Technical College offering Science and Technology courses. Adult learners in Antigua and Barbuda, from the age of 16, can pursue vocational courses at a publicly owned Technical Vocational institution, where technical and vocational courses are offered alongside Caribbean Secondary Education Certificate (CSEC) courses. This is geared towards individuals who did not do as well academically and wish to get a second chance at school.

Moreover, as further articulated by Boeren (2017), Job centre Plus provides active labour market training and advice as well as referral to the types of work programs and training available. This option is also available to adult learners in Antigua and Barbuda.

In addition, there are voluntary organizations that offer community-based learning to their members or other interested parties. Such institutions could be publicly owned, privately owned, or owned by third-party interests (Boeren, 2017). Adult learners in Antigua and Barbuda also have access to this type of training provided by these voluntary institutions.

As further asserted by Boeren et al. (2017), Trade Unions also offer workplace training for their members, who are mainly their owners.

Having examined the types of provision offered to adult learners, the researcher will now look at the significance of adult education and lifelong learning to a country.

2.3.2 The significance of adult Education and Lifelong Learning

Historically, the terms adult education and lifelong education have been used interchangeably with lifelong learning to influence countries worldwide, socially, economically, and politically (Milana, 2012). As a result, international agencies such as the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the World Bank, and the Organization for Economic Cooperation and Development (OECD) have implemented policies for their member states worldwide to promote lifelong learning (Milana, 2012). In the United Kingdom, lifelong learning and adult education have been used interchangeably, and the term has historically been associated with social change (Bowman et al., 2000, as cited in O'Grady, 2013). However, in recent times, it is viewed more widely as encompassing learning that takes place among individuals of all ages, whether in formal, informal, or non-formal institutions (Schuller, 2017).

Formal learning, as described by Rogers (2014), is intentional, whereas learners do not deliberately seek informal learning. Furthermore, the quality of learning in formal education is

measurable, whereas that in informal and nonformal education is not easily measurable (Rogers, 2014). Also, the use of the term lifelong learning adopts a holistic approach to learning as it encapsulates every aspect of an individual's lifespan (Akther, 2020). Worthy of note is that the benefits individuals derive from being lifelong learners can be affected by factors such as heightened inequality among learners and workplace or community cultures (Desjardins, 2017). In support of this, UNESCO (2016) highlighted in its 3rd Global Report that adult learners pursuing further education can benefit economically and socially. The learning that learners engage in throughout their lifespan, as posited by Schuller (2017), can improve their lifestyles, attitudes, and behaviors across different spheres of society. From a global perspective, policies on lifelong learning vary by country's level of economic development (Akther, 2020). The focus of lifelong learning, therefore, varies depending on whether a country is labeled developed or developing. Countries that are developed and technologically advanced, such as the United Kingdom, view lifelong learning as necessary in upgrading the skills of employees in keeping with new technologies, while those countries that are labeled as 'developing' focus on basic education and literacy (Akther, 2020).

Adult education and lifelong learning will be examined from the perspective of the Caribbean in the next section.

2.3.3 Adult Education and Lifelong Learning in the Caribbean

Countries implement different policies on adult education and lifelong learning globally, depending on their local contexts (Clarke, 2020). Therefore, it is imperative that adult education and lifelong learning in the Caribbean be examined to arrive at an understanding of its role and implementation from a Caribbean perspective.

Twenty-eight islands are located wholly in the Caribbean Sea. However, the focus of this research is on 18 of these islands, which are a part of the Caribbean Single Market and Economy (CARICOM) (UNESCO, 2015). The CARICOM states are further divided into those

islands that are in the Eastern Caribbean, such as Antigua, and this forms the Organization of the Eastern Caribbean States as well as CARICOM (UNESCO, 2015). Further education is accessible in all CARICOM countries with government funding in place (UNESCO, 2015). Graduates from secondary-level education without certification are directed to pursue Technical and Vocational Education (UNESCO, 2015). Furthermore, this poses a problem for uncertificated school leavers, who do not secure high-paying jobs because of their chosen vocation. Having completed their Technical and Vocational Education and Training (TVET) if school leavers decide to upgrade their skills, they can become adult learners as they pursue courses leading to a National Qualifications Framework, and more recently, they established a Caribbean Qualification certification. (UNESCO, 2015). In addition, in the case of a country such as Jamaica, the educational system was revolutionized with the establishment of a literacy center to improve the literacy rate, and this later transformed into the lifelong learning center and then further transitioned into the Human Employment Resource and Development Agency, which encompasses all adult education and lifelong learning activities (UNESCO, 2015).

Further, any discussion on adult education in the Caribbean must include the UNESCO (2018) Sustainable Development Goal 4 (SDG4), which advocates for member countries to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030 (UNESCO Institute for Statistics, 2018, p.7). As such, discussions and conferences have been held among member countries of the United Nations Educational and Scientific Organization (UNESCO), where matters of the sustainability of participating countries have been at the forefront of the agenda (Clarke, 2020). Therefore, the concept of Education for Sustainable Development was promoted on the agendas of many countries (Clarke, 2020). As the agendas were mainly centered on the pace of human development and how the environment can be sustained at that pace (Selby, 2006), education for sustainable development became more prevalent.

Emanating from the discourse of sustainable development and the economy, Ferguson and Roofe (2020) agreed that sustainable development is vital for the upkeep of countries within a global economy, socially, economically, and environmentally. Education was earmarked as the central means for achieving sustainable development (Clarke, 2020). Hence, Tawil (2013) deems the move toward education a process for transmitting knowledge, skills, abilities, and values. Through the SDG4 agenda, the concept of lifelong learning was advocated as follows:

ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and culture's contribution to sustainable development (p.7).

It is through education that individuals' roles as citizens will be understood, and this will, in turn, transition to the development of their natural and social environment (Down, 2010). As a consequence, this will enable individuals and their future generations to develop a viable and sustainable environment (Downe, 2010). Further, as highlighted by Roofe et al. (2020), although SDG4 highlights education, the achievement of lifelong learning is not only tied to SDG4 but is the foundation for all seventeen Sustainable Development Goals.

The adaptation of SDG4 and the concept of lifelong learning has implications for how teaching and learning are carried out. Most importantly, the curriculum that is currently in existence in countries such as Jamaica, Trinidad and Tobago, and St. Lucia might have been refocused to reflect lifelong learning, but in some islands such as the Caribbean Island of Antigua and Barbuda needs to be re-examined. The curricula that exist reflect mastery of information in a teaching and learning environment that is fragmented (Stevenson, 2007). If learning is to be meaningful, it must allow "students to acquire and develop the knowledge, skills, and the associated capabilities and competencies to lead meaningful and productive

lives” (p.8). It is therefore, requires that the curricula are addressed holistically so that any gaps in curricula can be addressed (Stevenson, 2007).

According to UNESCO (2015), although a definition of adult learning education was suggested, most of the states under CARICOM have not yet adopted this definition and, therefore, have no policies in place to implement adult education. As such, no policies have been implemented in some CARICOM states. In the case of Antigua and Barbuda, where adult education and lifelong learning are rooted in the vision of its Ministry of Education and the empowerment of citizens is being promoted by UNESCO (2017), there is no centralized overarching mechanism in place to deal with the provision of these services (UNESCO, 2017).

Further, as highlighted by UNESCO (2015), only two countries that participated in a regional consultation on Adult Learning Education prioritized adult education and learning. The management of adult education programs is significant to this research. The next section will explore the historical perspective of management to gain a clear understanding of its evolution and determine which management style yields the most efficient results.

2.4 Historical Perspectives of Management

There are different classifications of management theories undertaken by several theorists, such as Koontz (1988), who divided management into six groups as follows: the school of the management process, the empirical school, the school of human behavior, the school of the social system, the decision theory school, and the Mathematical school. However, the broader categorization of Classical Management theory, subdivided into scientific management theory, administrative management, and bureaucratic organization, as well as Neo-classical and modern management theories advanced by Hitt (2009), will now be explored.

2.4.1 Classical Management Theory

Like any other discipline, the management of adults needs clearly defined structures and responsibilities to yield effective results. As articulated by Mullins et al. (2011), attention must be paid to the tasks individuals perform, and these must be measured against the skills and abilities of those being managed. The absence of task measurement left a void in management efficiency (Stoner et al., 2004). It could result in inefficiency, prompting the formulation of management principles to guide managers in managing more efficiently.

As a result, the scientific management approach was implemented to fill the void. This will be examined in the next section.

2.4.1.1 Scientific Management Approach. The evolution of the scientific approach to management began with Frederick Taylor, who observed a disconnect between line workers and the factory machines they used (Peltonen, 2016). The workers in the factory and the machinery they used (Peltonen, 2016). Further, as postulated by Uddin & Hussain (2015), Taylor asserts that the management of the employees was a necessary element for higher productivity. Based on Taylor's scientific approach, the management of institutions could achieve an efficient level of productivity by establishing set rules and operating guidelines for each employee in the institution Uddin and Hussain (2015) as well as using methods that have been already proven in the operation of the institution (Peltonen, 2016). In addition, Taylor's theory, if used by the management of institutions, could provide an avenue for the sharing of responsibilities between managers and their employees and provide financial incentives for those who overproduced (Kwok, 2014). Despite the benefits that can be derived from Taylor's scientific method in its use in management, it did not address the issue of human behavior among workers. (Rosenthal, 2018). This theory focuses mainly on the organizational structure of formal organizations (Mariyadas et al., 2022).

2.4.1.2 Administrative and Bureaucratic Management Approach. Like Taylor, Fayol (1949) developed an administrative theory that forms part of the classical school focused on organizational efficiency (Robbins & Coulter, 2012). Also, Fayol's (1949) focus was on those individuals who form part of the top management of organizations. Managers who adopt the theory advanced by Fayol (1949) would focus on the optimal number of managers per worker, principles of departmentalization and delegation, and lines of authority in organizations. Additionally, managers who utilize Max Weber's theory of bureaucracy would establish a hierarchical structure indicating clear lines of authority and responsibility to avoid confusion (Peltonen, 2016). As further espoused by Madan (2014), managers who advocate this theory believe that organizations operate efficiently by implementing bureaucratic structures, thereby allowing such institutions to be managed impersonally. In addition, the focus of an organization that promotes bureaucratic theory is on the positions in the organization rather than on employees (Sridhar, 2017), hence, the organization will continue to function even if the employees leave their jobs (Brown, 2010).

2.4.2 *Neo-Classical Management Theory*

Since the scientific management approach focuses more on the structure of organizations, tasks, and productivity, this school was introduced in the early 20th century and emphasized the human element, such as social factors and human behavior (Mullin et al., 2011). Some of these theories will be discussed in the next section.

2.4.2.1 Human Relations Theory. The proponents of the human relations school, including Elton Mayo, Frank Roethlisberger, and William Dickson, equip managers with the knowledge and skills to examine the interrelationships within groups, as they believed this was critical to the development of organizations (Robbins & Coulter, 2012). From the Hawthorne experiment, managers should be aware that not all employers behave rationally, and those that do so may exert a strong influence on organizations (Peltonen, 2016). Additionally, the study

by Mayo, Frank Roethlisberger, and William Dickson, known as the Hawthorne experiment, demonstrated that when managers and supervisors oversee their employees, employee performance improves in organizations (Cherry, 2018).

2.4.3 The Behavioural School

The behavioural approach to management focuses more on human resources than on production and the tasks employees must carry out. The focus, therefore, shifted from tasks and production to the social aspects of employees and employee behavior, as it was felt that this would ultimately result in increased productivity and efficiency (Mullins et al., 2011). Three theories within the behavioral school are examined below.

2.4.3.1 Need Hierarchy Theory Abraham Maslow, one of the advocates of the behavioral school, identified employees' needs and created a hierarchy of needs, with psychological needs at the base (McLeod, 2018). Psychological needs, as described by McLeod (2018), include sleep, eating, water, sex, breathing, and other physical needs. Once the basic needs are fulfilled, they will no longer be regarded as motivators for the employees, and the second level of needs, called safety needs, will take precedence (McLeod, 2018). McLeod (2018) describes the basic safety needs. According to McLeod (2018), failure to fulfill individuals' safety needs will result in their being used as motivators.

2.4.3.2 Theory X and Theory Y. The management perspective from human behavior theory, as outlined by McGregor (1960), is presented from two viewpoints. The first theory, labeled as X, is an authoritarian style of management. In this regard, McGregor (1960) argues that managers need to use authority to get work done, assuming that workers are lazy and will work hard only if incentivized. In addition, McGregor's (1960) second theory, labeled as Y, is opposite to theory X as it is participative. Rather than coerce workers to complete tasks, McGregor (1960) suggests that they be encouraged to participate in work activities collaboratively. Such managers want to be involved in the decision-making process, *are*

usually self-motivated, and place value on their jobs (McGregor, 1960). As an art, if McGregor's (1960) theory is applied to different contexts, for example, education or industry, managers of these programs should possess the necessary skills and knowledge (Mcgregor,1960). These skills should be used in organizing their respective programs with the organization.

2.4.3.3. Herzberg's Two-Factor Theory. As proposed by Herzberg (1966), motivation can be influenced by two factors, motivators and hygiene (Robbins & Coulter, 2012). According to Herzberg's theory, job satisfaction correlates with intrinsic and extrinsic factors (Robbins & Coulter, 2012). Further, since Herzberg (1966) is of the view that satisfied individuals are not always dissatisfied and vice versa, Herzberg (1966) proposed that hygiene factors and motivators be used to eliminate the opposite end of the spectrum scenario (Robbins & Coulter, 2012). Hygiene factors, such as supervision, relationship with supervisor, salary, working conditions, status, and peers, according to Herzberg (1966) are those attributes that enable an employee to move from being dissatisfied to no dissatisfaction, while motivators such as achievement, recognition, advancement, and growth take employees from being demotivated to motivated (Robbins & Coulter, 2012). According to Herzberg's (1966) research, motivators promote satisfaction among employees, whereas hygiene factors prevent dissatisfaction.

2.4.4 Modern Management Theory

This approach was developed after the Hawthorne experiments were conducted. It relied on more scientific data and research to determine the best methods to motivate employees thereby increasing their efficiency (Mullins et al., 2011). According to Mullins et al. (2011), the modern theory was geared towards individuals who lead complex lives.

2.4.4.1 Systems Theory. On the one hand, organizations play a pivotal role in classical management theory, whereas human behavior was the center of the neo-classical management

school (Sridhar, 2017). Modern system theory will therefore create a balance between classical and neo-classical theories by focusing on modern management theory (Sridhar, 2017). As stated by Mele et al. (2010), the systems theory allows managers in organizations to take a holistic approach to management. Such an approach considers the fiscal, societal, institutional, and natural aspects of the organization, in which the organization is viewed as a subsystem comprising many subsystems, each of which plays a significant role in the organization's efficient functioning (Mele et al., 2010). Some advocates of the system theory, as highlighted by Mele et al. (2010), include Hubert Simon, Chester Barnard, George Homans, and Philip Selznick.

2.4.4.2 Contingency Theory. While systems theory utilizes universal principles for application across all situations, contingency theory is applied based on the situations that occur within organizations (Fieldler, 1970). In addition, Fielder (1970) asserts that the contingency theory allows synergy to occur between the strategies that management applies in organizations and the situations that confront them. The basis of this theory, as advanced by Fielder (1970), is that no one management strategy can be applied to all situations in organizations, as modern-day organizations are becoming more dynamic. Further, as postulated by Islam & Hu (2012), applying contingency theory to respond to situations that arise in organizations could motivate employees to perform well.

Understanding management theories can help managers better understand organizations and how to act in situations they encounter (Mariyadas and Ar, 2022). As further articulated by Mariyadas and Ar. (2022), management theories can be interpreted based on the situation in the organization. Such management information, if implemented, can lead to actual changes in organizational behavior (Mariyadas & Ar., 2022).

A definition of management will now be explored, as it will provide perspective

on available management styles and whether management of adult education programs attends to those that best fit their institutions.

2.5 Towards a definition of management

There is a plethora of definitions of management, and they evolve around various theories. Daft (2016) asserts that, as management practices vary across social, economic, and political contexts, managers of institutions must stay abreast of these practices and theories. Lawal (2012), further postulates that the theories of management are only helpful if they contribute to the improvement of managerial efficiency. Furthermore, these theories are grounded in the perspectives of researchers such as Taylor (1911), Fayol (1949), and McGregor (1960), and the work of these theorists will help ascertain what takes place in management today.

Also, these theorists' perspectives will be considered in attempting to define management. Fayol (1916) states that

to manage is to forecast and plan, organize, command, coordinate, and control. To foresee and provide means examining the future and drawing up a plan of action. To organize means building up the dual structure, material, and human, of the undertaking. To command means maintaining activity among the personnel. To coordinate means binding together, unifying, and harmonizing all activity and effort. To control means seeing that everything occurs in conformity with established rule and expressed command (pg. 5).

Based on Fayol's (1916) definition, management is viewed as a set of processes such as planning, controlling, organizing, and coordinating activities (Mclean, 2011). However, despite Fayol's (1916) work, in the modern era coordinating is not perceived as a distinct function of management, as it is often assumed that it must take place for the other functions to work smoothly within an organization.

A contemporary definition of management, as suggested by Kaehler et al. (2019), views management holistically, incorporating all areas of management. Such a definition involving all stakeholders is required if the success of educational programs is to be achieved

(Kaehler et al., 2019). Further, from an entrepreneurial perspective, management, as defined by Lemos et al. (2019), comprises all policies, practices, and standards of employee behavior established by an institution to regulate its employees.

Additionally, since the research involves managing programs in an educational institution, management can be defined in the context of higher education from two perspectives. Harvryshchuk et al. (2012) assert that activities geared toward achieving goals that benefit universities by efficiently using human, material, and financial resources are beneficial to universities. The second perspective of management highlights management's ability to organize the organization's resources, including work, communication skills, and staff members' behavior and practical work, to achieve the organization's goals (Harvryshchuk et al., 2012).

Having defined management, it is imperative to examine the extent to which educational programs are managed effectively and efficiently.

2.5.1 Measurement of effective management

Organizations often use managerial effectiveness to assess management's skills and the organization's future direction (Amjad et al., 2014). Effectiveness, as described by Robbins et al. (2015), involves managers seeking to maximize the quality of output by using the most appropriate means available. In addition, Scheerens et al. (2007) describe effectiveness as the extent to which a productive system transfers all its available human and material resources and simultaneously incorporates them into educational outcomes. If the adult education programs are deemed adequate, they must achieve their desired goals and effects (Burušić et al., 2016). Hence, the application of this measure dictates that when an educational organization achieves better outcomes for its students, it is deemed to be more effective (Burušić et al., 2016). According to Bezirtzoglou (2004), this approach highlights the success of one educational institution over another based on its contribution to student

achievement. Further, the measure of effectiveness, as suggested by Bezirtzoglou (2004), could come at the expense of some students being lost and deprived within the education system, as emphasis could be placed on excellence or high outcomes (Burušić et al., 2016). In this regard, Kyriakides (2004) asserts that educational effectiveness should consider high learner outcomes and the reduction of inequality among learners who are left behind.

Additionally, Galbraith (2014) opines that the effectiveness of an organization can be described as the level of efficiency in which the organization can meet its objectives. However, effectiveness should not be mistaken for efficiency, which focuses on a manager's high standard of work aimed at achieving the highest possible output that benefits the organization (Robbins et al., 2015). It is therefore necessary for educational organizations to be effective and efficient to achieve their goals (Mulyasa, 2013). As further postulated by Mulyasa (2013), the achievement of an educational institution's goals depends on how it is managed. The efficiency of programs carried out in such organizations consequently lies with the management of these programs by the heads of these institutions. According to Mulyasa (2013), heads of institutions must keep abreast of the needs of the individuals under their control through assessment of these needs. By doing so, the heads of institutions would be aware of the needs of facilitators and other support staff and provide training to address any shortcomings (Mulyasa, 2013). Despite this, both effectiveness and efficiency have a common thread. As indicated by Scheerens et al. (2007), if managers of educational institutions are deemed to be efficient, they would also be seen as effective as, in addition to high outcomes, they would have achieved this by managing their resources well.

Assessing effectiveness is a key component of educational management, as it evaluates the operational standards of these institutions' management (Kowalczyk, 2017). If effectiveness is to be properly determined, it must be measured through the performance of the individuals managing these institutions in a quantifiable way (Özkan et al., 2018). Therefore, it is those in

management who are key to determining the effectiveness of their respective institutions, since the success of the programs rests heavily on how they are managed (Özkan et al., 2018). Every manager or leader will have their own management style, which they use to execute their daily functions as required by their jobs (Supratikno, 2016). It is also imperative that managers of institutions establish a clear set of criteria to assess their effectiveness (Galbraith, 2014).

Additionally, Özkan et al. (2018) view the management of these institutions as utilizing some form of management theory adapted from Taylor (1949), Fayol (1916), Mayo, or a combination of these theorists. In achieving the organization's goal, the management viewpoint must be highlighted. From the perspective of Taylor (1949), the management of any institution and by extension any set of programs could only be effective if there is an increase in enrollment, the cost of operating the programs is reduced, and technology is used to ensure that the system is as efficient as possible. While Taylor's (1949) views are acceptable, they cannot be used on their own to describe effective management, as they focus only on the output; however, Fayol (1916) believes that effectiveness in management lies with the manager who establishes clear lines of responsibility and authority to achieve the goals of the organization. As such, managers responsible for the institution or any programs should have clear structures in place that define the lines of authority and responsibility among facilitators, administrative staff, and adult learners. However, Mayo (2004) postulates that management alone cannot account for effective management and highlights that employees' contributions must also be considered. In this regard, employees and relevant stakeholders must all be considered if the organization's effectiveness is to be determined. Effective Management is a fundamental requirement for effective organizations and contributes to organizational development (Drucker, 2006). Such an organization is instrumental in increasing productivity and improving livelihoods (Drucker, 2006).

The role of educational institution management is important, as it determines the institution's output quality (Lessa et al., 2018). Moreover, as posited by Salmagundi (2015), the quality of management of the educational institution will impact the effectiveness of the curriculum, infrastructure, and how students learn. In addition, how learners perceive the adult education programs in which they are enrolled will influence the effectiveness of these programs (Mengistie, 2022).

Furthermore, adult learners' views of education hinge on their socioeconomic status and way of life (Shore et al., 2013, as cited in Mengistie, 2022) and could influence how they perceive the programs in which they are enrolled. The programs offered to adult learners must be in keeping with their interests. However, most of the activities planned by managers for learners, including curricula and training for facilitators to support the mode of delivery and the learning environment, are outside their control. Yet, they are important to these learners and could influence their learning (Poudel, 2020). If adult education programs are not properly marketed and are not relevant to the adult learner's personal context, they will not be motivated to continue learning (Knowles, 1980). The measure of effectiveness in adult education programs will now be discussed in the next section.

2.5.1.1 Measurement of effectiveness in adult education programs. The Management of successful adult education programs requires planning based on the needs and expectations of adult learners and their learning styles (Hong, 2017). Assumptions about the adult learners' learning styles could be made based on Knowles et al, (2005) assumptions about adult learners, including how their work should be designed to ensure that adult education programs are effective. Rothwell and Cookson (1997) proposed a four-part comprehensive planning model for lifelong learning. This plan entails being professionally responsible, relevancy in the engagement of contexts, and designing and managing the educational aspects of programs.

In terms of professional responsibility, program planners or managers should have clearly defined philosophies governing their programs, as well as responsibilities and roles for the facilitators and students (Rothwell et al., 1997). As further posited by Rothwell et al. (1997), the planned programs must take all stakeholders involved, such as facilitators and learners, into consideration. In addition to having well-planned programs conducive to adult learners, the management of these programs needs to ensure that the programs are effective. In this regard, Vella (2002) proposes twelve principles that she believes could ensure effectiveness in adult education programs. Among these is the assessment of the needs of the learners of the programs, allowing learners to take an active role in deciding what is to be learned, ensuring a safe environment for learning, creating a safe environment for learners, promoting teamwork, developing sound relationships between teacher, learners, and other learners, ensure that learning and testing are carried out reasonably, ensure that managers, learners, and facilitators carry out reflection to improve teaching and learning, the development and establishment of clear roles within the organization, and the promotion of accountability by the learner, get learners involved in the decision making process.

Once adult education programs are properly planned, they need to be monitored to determine whether they are meeting their objectives (OECD, 2019). Further, according to OECD (2019) while these programs may create benefits for learners in their various spheres of life, it is critical that tracking is done since not all of these benefits are known or easily identifiable. The benefits of tracking would not only reveal whether the programs are effective, but also determine whether they are meeting the objectives as expected or have gone beyond them. The benefits that can be derived from participating in adult education programs may prove to be more effective and beneficial than expected, positively affecting an adult learner's life beyond education and economics (Chevalier et al., 2007; Feinstein et al., 2004). Based on research undertaken, there is a positive correlation between adults'

participation in learning and changes in their health, social and political contributions as well as the carrying out of their civic duties. (Chevalier et al., 2007; Feinstein et al, 2004).

Countries have found different ways of monitoring the effectiveness of their adult education programs. Each country would therefore need to find an appropriate way to monitor the effectiveness of its programs (OECD, 2019). For example, in the United Kingdom, pilot programs are conducted to collect data on learner outcomes among adult learners enrolled in non-accredited learning centers (OECD, 2019). Furthermore, in Norway, data are collected via questionnaires, and likewise in Brussels, questionnaires are sent to the training participants of these programs.

The following section will focus on how educational institutions are managed.

2.5.2 Towards an understanding of educational management

The field of education faces transitional issues over time as it works to become more independent and decentralized (Avdagic & Ellwanger, 2017). They also believe that this movement adds value to the development of new scientific fields and, as such, gives rise to the conceptualization and practice of management in education. In this regard, management is viewed as a system that benefits learners rather than a bureaucracy (Avdagic & Ellwanger, 2017). Management is significant in any field of endeavor, whether in economics, the production of goods and services, or the military (Avdagic & Ellwanger, 2017). As such, since it serves the same purpose of making organizations more efficient by carrying out the functions of planning, organizing, and coordinating as other disciplines, Avdagic & Ellwanger (2017) believe it qualifies for use in education. However, this view has been criticized by researchers such as Pigisch (2010, as cited in Avdagic and Ellwanger, 2017), who argue that education and management are distinct fields, with management synonymous with economic matters. Despite these cited differences, the researcher will define educational management as it is significant to the management of adult education programs.

Many researchers have developed definitions of management as it relates to education (Craig, 2021). Further, Bush & Clover (2003, as cited in Craig, 2021) describe management in Education institutions as the “implementation of school policies and the efficient and effective maintenance of the school’s current activities.” This definition aligns with that of researchers such as Fayol (1916) and McLean (2011), in a traditional sense, which includes the principles of planning, controlling, organizing, and coordinating. In a more contemporary way, Kaehler et al. (2019) describe management holistically, encompassing all management areas and including educational stakeholders. Alternatively, management could be defined from an entrepreneurial perspective to include all policies and practices of an organization geared toward regulating its employees. Management can, therefore, be summarized as the process of ensuring that all processes and resources within the organization function efficiently to achieve effectiveness and efficiency (Craig, 2021).

In relation to Educational Management, it is described by Connolly et al. (2019) as individuals responsible for ensuring that the system within educational institutions in which other individuals participate functions properly. Managers of educational institutions are responsible for the daily functioning of their institutions (Craig, 2021). In addition, the managers of these institutions would have to accept responsibility for ensuring that the entire plant is fully functional and delegate responsibilities as necessary (Czarniawka-Joerges & Wolff, 1991, as cited in Craig 2021). Moreover, according to (Lunenburg, 2011), management in education, therefore, serves to stabilize the institution and ensure its smooth functioning. As further purported by Craig (2021), the management of education must be able to put structures in place to ensure accountability. Further, as advocated by Craig (2021, managers of adult education institutions must be willing to take personal responsibility for whatever happens on the school plant.

The management of educational institutions is significant to the effectiveness of adult education institutions and to the quality of outcomes. As the thrust of this research is on the effective management of adult education programs, it is necessary also to define educational management. The educational models used by managers of educational institutions will help determine decisions, as before making decisions, they should establish linkages between the aims, goals, and actions taken (Bush, 2020). Such choices can affect the institutions positively or adversely. The educational models advanced by Bush (2020) derive from the educational environment's level of influence, the strategies most appropriate for the institution, and the objectives agreed upon by educational stakeholders. Bush (2020) identified formal, collegial, political, subjective, ambiguous, and cultural models. These models will help explain the options available to the management of adult education institutions. Each model highlighted by Bush (2020) will be examined in the following section.

2.5.2.1 Formal Model. This model comprises hierarchical, structural, systems, bureaucratic and rational models. The formal model assumes that the organization has a hierarchical structure and that the objectives are based on rationalization (Bush, 2011). The model aims to achieve the educational institution's objectives using rational thinking. According to Bush (2020), this model “views organizations as hierarchical systems in which managers use rational means to pursue agreed goals.” Heads and principals possess authority legitimized by their formal positions within the organization and are accountable to sponsoring bodies for the activities of their institution.” (p. 33). Further, as suggested by Bush (2020) this model dictates that managers of institutions are held accountable for the success or failure of institutions. These managers often make policies in keeping with organizational goals. Another model, as advocated by Bush (2020), the collegial model, will be examined below.

2.5.2.2 Collegial Model. These models assume that decision-making is based on consensus and discussion among individuals who share similar perceptions of the organization's objectives, determination and policy formulation. Hence, there is a lack of transparency in the decision-making processes. The distribution of authority and the ability to make decisions among the members of the educational institution are central to this model (Bush, 2020). Additionally, this model is viewed as one that can “determine policy and make decisions through a process of decision-making leading to consensus. Power is shared among some or all the members of the organization who are thought to have a shared understanding about the aim of the institution” (Bush, 2020, p.59). Furthermore, the collegial mothering style is akin to distributed leadership, which, according to MacBeath (2009), entails the distribution of power and decision-making across educational institutions. This form of leadership also involves giving the educational institution's staff the authority to make decisions after reaching consensus (Bush, 2020). Regardless of the collegial model of management that exists in educational institutions, institutions can adopt distributive models, empowering some or all of the senior members of the institution.

The political model is also another option available to managers of institutions and will be examined below.

2.5.2.3 Political Model. This model assumes that the organization's policies and decisions result from a complex system of negotiating and lobbying over the department's policy and goals, often leading to conflict (Bush, 2020). Also, this model assumes that bargaining and negotiation are central to decision-making (Bush, 2020). The thrust of this model is that” interest groups develop and form alliances in pursuit of a particular policy objective. As further articulated by Bush (2020), conflict is viewed as a natural phenomenon, and power accrues to dominate a coalition rather than being the preserve of formal leaders” (p.

87). Moreover, this model is suitable for educational institutions whose goals are flexible and negotiable. Hence, some decisions could be based on negotiation (Bush, 2020).

The subjective model will now be discussed below.

2.5.2.4 Subjective model. As Bush (2020) states, the model considers the manager's values and beliefs when making decisions. Such decisions tend to affect individuals' behavior within the institution. The model focuses on individual members rather than units or the entire organization. The organization's function is based on what individuals perceive, their values, the system, experience, and aims and objectives, rather than the organization's. Therefore, this results in a complex organization that attempts to push everyone's agenda. In this model, the most influential individuals in the institution could influence the decisions that are made in the institution (Bush, 2020)

2.5.2.5 Ambiguity Model. This model is labeled with confusion, uncertainty, and unpredictability. With this decentralized model, there is a lack of clarity about organizational objectives, and individuals are unsure about what transpires within the organization due to ambiguity. It depicts instability in the institution's decision-making process (Bush, 2020). Since institutions that use this model do not usually have clear objectives, the institutions' objectives and processes remain unclear (Bush, 2020). Additionally, the model's uncertain decision-making leads to instability in the process among the individuals involved in the institution (Bush, 2020). Institutions that lack clear goals or unclear objectives for employed individuals, especially in the top tier. Furthermore, another model available to educational institution managers will be discussed below.

2.5.2.6 Cultural Model. The cultural model promotes beliefs, norms, value systems, and ideologies central to the organization's culture. The inherent value systems assess what other members do within the organization. Regardless of the educational model used, teaching and learning should be the primary focus (Bush, 2020). In addition, measuring the effectiveness

of adult education institutions is important, as it will determine whether they are appropriately managed. The models based on the andragogical assumptions will now be examined as these will give a clear understanding of what is involved in the teaching and learning environment when the management of adult education institutions considers these models when planning their programs.

2.5.3 *Models of andragogical Assumptions Knowles et al. (1980)*

According to Gilstrap (2013, as cited in Dantus, 2021). The theory of andragogy is viewed by Knowles (1980) as "on a continuum where pedagogy moved toward andragogy as children developed into adulthood" (p. 503). It is further described by (Gilstrap 2013, as cited in Dantus, 2021) as "an approach to learning which places learners at the center of the learning process and is dominated by student-centered theories as opposed to teacher-centered activities". When using andragogy, it must be recognized that all adults are not the same, nor does it take into account other ways of learning or knowing (Sandlin, 2005, as cited in Dantus, 2021). There is considerable debate surrounding andragogy regarding whether it is a "theory, method, technique, or set of assumptions" (Davenport & Davenport, 1987, p. 152). Davenport and Davenport (1987) highlight that the theory of andragogy, as articulated by Knowles (1980), does not represent a unified theory of how adults learn, nor have its assumptions been proven empirically.

Notwithstanding this, Knowles in his later work "prefers to think of andragogy as a model of assumptions about learning or a conceptual framework that serves as a basis for an emergent theory" (Knowles as cited in Merriam & Cafarella, 2007, p.274). As asserted by Knowles et al. (2015), the model of assumption is that when adult learners enter the learning environment, they do so with specific needs. It is therefore important that adult learners know what they are learning and why, as they would show greater appreciation and value for their learning (Knowles et al., 2015). Despite this assumption by Knowles et al. (2015), Brookfield

(1986) argues that not all adult learners need to know why they learn, but some adults pursue learning for the enjoyment they gain.

In addition, as posited by Knowles et al. (2015), because of their level of maturity, the expectation is to develop a mindset of independent thinking rather than full dependence on others. However, being mature is not necessarily indicative of adult learners being self-directed (Brookfield, 1986). Also, of significance, is the fact that adult learners are internally motivated, rather than extrinsically motivated which makes learning more manageable; once they enter the learning environment, they become self-directed (Knowles et al., 2015). In addition, the adult learners' maturity brings several years of experience that they can draw upon as a learning resource throughout the learning experience. Furthermore, as purported by Knowles et al. (2015), adult learners are equipped with the requisite knowledge they can put to immediate use as they shift from student- and subject-centered learning to active learning, where performance is paramount.

Moreover, another assumption put forth by Knowles et al. (2015) is that, because of the wealth of experience that adult learners possess and their life goals, these learners will learn what is necessary. However, the extent to which the wealth of experience applies only to adult learners is questioned by Brookfield (1986), who argued that some children may have richer experiences than adults, even though they have not lived as long as adults (Brookfield, 1986). Of significance is also that adult learners show greater appreciation for their learning when they know what is to be taught (Knowles et al., 2015). Moreover, while Knowles (1984) aptly describes the nature of adult learners engaged in the learning process, Sandlin (2005) is of the view that the relationship between adult learners and society. Such a relationship between these learners and society could influence how learning takes place during their programs (Sandlin, 2005).

Additionally, there is a lack of empirical evidence supporting Knowles's (1980) andragogical assumptions (Jarvis, 1984; Davenport, 1987). These assumptions have implications for how learning should be organized in the adult learning environment and the expectations from facilitators involved in the process. Having explored the concept of andragogy, its impact on adult education programs needs to be established.

2.5.3.1 Exploration of andragogy in Adult Education. The primary concern of managers of adult education institutions is to offer high-quality services that satisfy the needs of their adult learners (Nafukho et al., 2011). Therefore, the success of these programs is contingent on how they treat their students who are the main customers (Nafukho et al., 2011). Inclusive of their management is the way teaching and learning take place. In the past, the thought process of teaching learners of all ages might have been that both adults and children were to be taught the same; this thinking might be inaccurate (Machynska, et al., 2020); as the education of adults in recent times has been deemed to be different from the education of children (Machynska, et al., 2020). The fact that adult learners, as characterized by Knowles (1990), are independent thinkers, bear responsibility for their guidance, and have accumulated work and life experiences, as well as family experiences, makes them different from children (Shi, 2017). The learning process for children entails acquiring new knowledge (Yazdani, 2019) rather than building on work and life experiences. Hence, this is in keeping with Knowles' (1980) theory that describes andragogy as "the art and science of helping adults learn" (pg. 43).

To clearly understand the requirements of adult learners engaged in the learning environment, the researcher will briefly describe the six andragogical assumptions as posited by Knowles et al. (2015) as follows: the need to know, the self-concept of learners, adult learners' experience, the experience of learners, the readiness of adult learners to learn, their orientation to learning, and their motivation to learn.

2.5.3.4 Differences between the teaching of children and adults. The andragogical model of assumptions posited by Knowles (1980) indicates that adults learn differently from children. It is therefore incumbent on the researcher to highlight any perceived differences between both types of learners. As suggested by Ekoto et al., (2015), the word pedagogy is about the way children are educated with the sole purpose of making them functional citizens in society. Knowles (1980) describes pedagogy as being teacher-centered, with the teacher taking responsibility for the teaching and learning process and the student being a passive recipient of information imparted by the teacher.

Additionally, Knowles (1980) highlighted that in a pedagogical situation, learning is subject-oriented, and the students gain knowledge but do not draw on this knowledge as a resource. It is also suggested by Knowles (1980) that in a pedagogical learning environment, students' learning is externally motivated, being controlled by punishments and rewards. The characteristics that differentiate between andragogy and pedagogy, as highlighted by Knowles (1968, 1973), are shown in Table 1. Based on the characteristics of adults and children highlighted, adult learners' self-concept according to Knowles (1973, p. 62) emerges from these learners being motivated by what is described as "a deep need to be self-directing." What these adults learn is determined by what they encounter in their everyday lives, and this forms the basis of their learning (Knowles, 1973). Further, as advocated by Knowles (1973), the teacher's role in teaching adults is that of a facilitator guiding them towards independent and objective thinking and understanding. This replaces the transmission of knowledge followed by the determination of the extent to which they have conformed to the knowledge imparted (Knowles, 1973). In comparison, children are psychologically dependent on the teacher and would need to be told what to learn and how to learn (Knowles, 1973).

Moreover, Knowles (1973) postulated that adult learning differs from that of children. Adult learners bring a wealth of knowledge into the learning environment which matches

previous experiences and knowledge to derive meaning. According to Knowles (1973), children, unlike adults, bring limited knowledge and experience into the learning environment and therefore need to be taught what they are required to know; hence they are introduced to new concepts. Regarding the orientation to learn, adults are deemed by Knowles (1973) as ready to learn since they would have been employed and assume different roles in society from which they can gain experience. On the other hand, children are not as ready to learn as adult learners, as they are not yet old enough to bring the wealth of knowledge and experience to the learning environment (Knowles, 1980). Whereas Knowles (1980) describes children's learning as that which occurs only when needed, adults' learning is described as problem-based learning. He asserts that learners are required to know the nature of the learning to be undertaken for assessment of the knowledge or skills that is required to function daily. Based on the psychological characteristics of adults, Knowles (1980) believes that adult learning is mostly intrinsically motivated, whereas external factors drive children's learning. Despite the differences highlighted in the learning of adults and children as articulated by Knowles (1973; 1980), some researchers, such as El-Amin (2020), share a different perspective.

While children's learning is described as pedagogy, El-Amin (2020) purports that adult learning entails both pedagogy and andragogy'. Furthermore, Knowles et al. (2005) describe andragogy as the art and science of assisting adult learners during the learning process. In an andragogical situation, unlike a pedagogical one, learners are not passive recipients of information but active participants in their learning (Knowles et al., 2005). However, in accordance with El-Amin (2020), some children may not be passive recipients of information but may have their own experiences they wish to explore.

As highlighted by Knowles (1980), the practice of using pedagogy in education is based on the transmission of information. However, in recent times with the upsurge of cultural change and changes in social and economic systems, information learned by individuals has

become obsolete in a relatively short period (Knowles, 1980). As such, Knowles (1980) contends that skillful teachers would have deviated from teaching adults like children.

Table 1*Distinction between andragogy and Pedagogy*

Regarding	Andragogy	Pedagogy
Self-concept	Adults are self-directed learners, moving towards independence	Children are dependent beings; teachers are responsible for their learning.
Learning process	Adult learning is generated by experience and, therefore, ideally problem-centred	Children's learning is based on the instruction of unfamiliar subject content.
Readiness	Adults want specific learning about their work and other roles in society.	Children need generic learning to prepare them for the future.
Orientation	Adults are interested in "just- in-time learning immediately related to their lives. They learn what they want to learn.	Children's learning is "just-in-case" preparation for an adult future. They learn what society expects them to learn
Motivation	Adults are internally motivated.	Children are externally motivated.
Problem Solving		

Note: Adapted from Knowles (1980, p.6)

Having examined the difference between teaching adults and children, the application of andragogical assumptions by facilitators will be discussed in the next section.

2.5.3.5. Application of andragogical assumptions by facilitators. The assumptions of Andragogy, as conceptualized by Knowles (1980), is significant to the adult learning process (Abdullah et al., 2021). During the learning process, if facilitators explain why lessons are taught and the benefits of the concepts, Abdullah et al. (2021) argue that learners would be more motivated to learn. Additionally, Abdullah et al. (2021) argued that adults need to be deeply involved in their learning. They suggested that real-life case studies could be valuable tools for facilitators in the teaching and learning environment.

Also, another assumption of self-concept promoted by Knowles et al., (2015) is that adults are responsible for their learning and can make informal decisions. This is believed to be the basis upon which a learner succeeds or fails (Dabbagh, 2007, as cited in Abdullah, 2021). Therefore, facilitators in the learning process need to pay close attention to how they incorporate their prior experiences and guide learners when necessary (Abdullah et al., 2021). Additionally, when adult learners are involved in the learning process, their wealth of experience adds value (Taylor and Kroth, 2009, as cited in Abdullah, 2021). Also, because adults have varied learning experiences, facilitators can encourage learners to connect their learning to similar experiences (Blondy, 2007, as cited in Abdullah, 2021). Therefore, the lecture materials and lectures used by facilitators should be flexible to capture the experiences of different adult learners and motivate them to continue with their learning (Abdullah, 2021).

Another assumption is that readiness to learn requires that facilitators hold in-class discussions and have learners respond to these discussions and the questions posed (Abdulla, 2021). In addition to responding to the questions asked, these students can ask follow-up questions based on the discussion questions. As further indicated by Abdhulla (2021), adult learners' responses can help facilitators ascertain students' level of preparedness for class.

Further, if students are to be motivated to learn, the activities they engage in must be concrete (Knowles et al., 2005), allowing learners to apply what they have learned to real-life situations. Additionally, as also advocated by Knowles et al. (2005), is the motivation of adult learners. He further added that learners could be more highly motivated if they are given concrete activities during the learning process, making learning more meaningful. As such, the curriculum used to teach adults must be process-based, allowing adult learners to derive meaning from what they learn (Knowles et al., 2005). Embedded in the concept of motivation is the type of motivation that propels adults. Adult learners are primarily intrinsically motivated and would therefore require a student-centred learning environment (Knowles et al., 2005),

which could encourage their active participation (Aaragon, as cited in Abdhulla, 2021). Since the andragogical assumptions and their application by facilitators have been discussed above, the weaknesses of andragogy will be examined next.

2.5.3.6 Advantages and Disadvantages of andragogy. Many connotations have been used to describe andragogy and its use in adult learning, such as a method, a philosophy, or a set of assumptions (Caruth, 2013, as cited in Alam, 2021). Further, the principles of andragogy, as cited by Knowles (1984), give guidelines for facilitators or institutions involved in teaching adults to focus on these assumptions. Additionally, as advocated by Alam (2021), facilitators involved in adult education must be interactive in the teaching and learning environment by utilizing tools such as case studies, role-playing exercises, and problem-solving exercises. Such tools would assist the learners in understanding the relevance of the content being studied to real-life situations (Josh, 2017). The use of andragogy is also beneficial for adult learners, as relating learning to real-life situations helps prepare them for entry into the workplace, which is becoming increasingly competitive (Alam, 2021). Also, the use of andragogy with adult learners builds relationships between the learners and their facilitators (Caruth, 2014), which would help better prepare learners.

Following the andragogical assumptions by Knowles (1984) and research undertaken, adults learn best when their learning is linked to their jobs and established goals and can identify with what they are taught compared to their life experiences (Panacci, 2015).

As indicated previously, the model of andragogical assumptions, as proposed by Knowles (1984), is viewed as a learning tool geared toward helping adult learners to be more effective in the learning process. However, the extent to which it can be considered consistently also needs to be examined. Since all adult learners do not have the same characteristics but enter the same adult learning environment, researchers such as Brookfield (1984), are of the view that the assumptions as posited by Knowles (1984a) cannot be suited to all adult learners.

Also, researchers such as Boud et al. (1985) postulate that a learner's age and years of experience do not affect education, thus eliminating the andragogical assumption that adult learning is strongly supported by the experience they bring to the learning process. Moreover, although the theory of andragogy has been applied in many situations involving adult learners and is perceived as successful, it has not been tested scientifically. Therefore, its application cannot be measured scientifically (Caruth, 2014). Further, very little empirical research on andragogy has been conducted over time (Merriam et al., 2007), and therefore is seen by some researchers as not representative of a unifying theory of andragogy. Also, andragogy is often portrayed as how adults learn, but there is no clear delineation between adult and child learners (Hartree, 1984). In some instances, the theory of andragogy has not been used in colleges and universities (Caruth, 2014). According to Knowles (1980), when a learner attains adulthood, they automatically become self-directed. In response, Brookfield (1986) argues that the age of maturity or adulthood does not automatically make learners self-directed, as this has not been empirically proven but is only an assumption.

Notwithstanding this, the use of andragogy, as a stand-alone concept, is a different approach to teaching that can be used efficiently and effectively in a specific context (Ekoto, 2015). For example, as Chan (2010) indicates, the assumptions can be used across a multitude of disciplines, in whole or in part, and not necessarily only in the education of adults. In addition, it is not always the case, as the facilitator sometimes transmits information when new topics are introduced (Knowles, 1980).

Since Knowles' (1984) assumptions about andragogy are pivotal to how adults learn, it is also important to understand the role played by factors that affect adults' participation in adult education programs, such as barriers, levels of motivation, the teaching and learning environment and other planned activities that could add value to assessing the programs' efficiency. (Poudel et al. 2020)

2.5.4 Factors affecting participation in adult education programs

The knowledge economy has necessitated keeping adult learners motivated as they seek to acquire greater knowledge (Sogunro, 2015). Motivation has different definitions, as purported by various researchers, centered around the idea ‘to move’, as reported by (Beck 2004, as cited in Sogunro, 2015). Further, as highlighted by Beck (2004), the meaning is that it concerns individuals' movements and actions and the factors that drive them. In addition, other researchers, such as Schunk et al. (2008, as cited in Sogunro, 2015), define motivation as a process that sustainably guides goal-oriented activities. Furthermore, Wlodkowski (1985) claims that most psychologists who advocate learning and education describe motivation as a process that can arouse and guide behavior, or lead an individual to choose a particular behavior from among alternative behavioral patterns. As articulated by Galbraith (1990, as cited in Sogunro, 2015), motivation refers to processes that direct individuals' behavior towards a desired outcome. The use of motivation in a learning environment would address motivational processes that trigger behaviors related to effort, perseverance, initiative, attention, and concentration in adult learners, all of which need to be activated by individuals monitoring these processes (Sogunro, 2015).

Moreover, from the perspective of the learning environment, motivation is viewed by McMillan and Forsyth (1991, as cited in Sogunro, 2015) as “purposeful engagement in classroom tasks and study to master concepts or skills” (p.39). Once learners are motivated, their participation in the learning process will increase, and they will be better able to participate in learning processes and improve their overall performance (Singh et al., 2012). Additionally, as Kim and Merriam (2004, as cited in Sogunro, 2015) note, different adult learners are motivated by various factors, so facilitators working with adult learners must be aware of the different motivators that affect them. This, according to (Wlodkowski, 2008), is significant to the learning process if learning is to be more meaningful, as motivation can

contribute to the teaching and learning environment positively. It enhances communication between adult learners and facilitators, stimulating them to be more creative. Therefore, motivation plays a significant role in the success of adult learners enrolled in adult learning programs, which will be explored in the next section.

2.5.4.1 Perspectives of motivation of adult learners. Research conducted among adults interviewed (Houle, 1961) revealed that adult learners are primarily driven by different factors that motivate them to learn. As such, Houle (1961) classified adult learners into three groups depending on their reasons for engaging in learning. Such learners are labeled as goal-, activity-, and learning-oriented. Based on Houle's (1961) typology, adult learners enrolled in goal-oriented learning pursue clearly defined objectives they hope to achieve through education. As such, adult learners are often involved in continuous learning. In support, Tough (1968) conducted seminal research on adults engaged in deliberate learning, which he substantiated in subsequent studies. Tough (1968) emphasized how adults learn and change, and how they undertake self-directed learning while engaged in the learning process. Additionally, Houle (1961) highlighted that some adult learners engage in learning for socialization, rather than for the purpose for which the learning is designed. However, Boshier et al. (1985) believe that goal-oriented learners. While the first two categories of learners identified by Houle (1961) do so based on clearly defined objectives or for socialization, the other group of learners' views learning as a continuous process and enjoys reading throughout their lives in pursuit of increased knowledge.

In addition, research carried out by Tough (1968) shares views similar to those of Houle (1961), who argued that adult learners engage in learning for several reasons, and that their motivations differ. The motivation of individuals, such as adult learners, can be viewed from different perspectives depending on the theoretical lens used to examine it. As such, the perspectives on motivation advanced by Brown (2007) will be examined to provide a clearer

understanding of the nature of motivation. Brown (2007) highlights these as behavioral, cognitive, and constructivist.

An adult learner, viewed from a behavioral perspective, is motivated by the anticipation of receiving a reward. This learner would be driven based on their experience of receiving rewards for a particular behavior type and wishes to receive more rewards. From a cognitive perspective, adult learners' motivation hinges on decisions made, as outlined by Ausubel (1968, as cited in Brown, 2007). He has identified six needs that underscore motivation for adult learners: a) need for exploration, b) manipulation, c) activity such as exercise and other physical and mental movement, d) stimulation, and e) knowledge and enhancement of ego. Additionally, from a constructivist perspective, each adult learner would be viewed differently and motivated based on what is happening in the individual's social milieu.

2.5.4.2 Adults' Motivation to Learn. Motivation is significant in the life of

Individuals require some form of what is done in life. One of the attributes of adult learners, as highlighted by Knowles' (1980) andragogical assumptions, is that they are intrinsically motivated, often engaging in activities without external motivators (Morris et al., 2022). Despite the intangible nature of motivation, a positive correlation exists between adult learning and motivation, as posited by Brookfield (1986), Knowles et al. (2015 and Wlodkowski (2008). Motivation can be viewed differently by researchers based on the framework that is used (Murray, 2011; Dweck, 2010; Pintrich, 2003); however, all the researchers agree that if learners are motivated, they must possess the belief that they are competent enough to achieve what they set out to achieve; they must be autonomous in their learning and set achievable goals and perceive that there is a correlation between effort and outcome; they must see value in what they are doing or have interest in completing what they set out to do, that is, they must be able to relate it to their life.

Further, since adult learners are deemed intrinsically motivated, their motivational factors are believed to be more long-lasting and significant than those that influence extrinsic motivation (Bandura, 1986). Adult learners, however, are seen as extrinsically motivated when they perceive the relevance of pursuing the program, such as the potential financial benefits after completion (Wlodkowski et al., 2017). One of the attributes of adult learners, as highlighted by Knowles' (1980) andragogical assumptions, is that they are intrinsically motivated, often engaging in activities without external motivators (Morris et al., 2022). Nevertheless, Knowles et al. (2012) and Boshier (1991) point out that while the most significant and forceful motivation for adult learners to learn is intrinsic, other adult learners are motivated by extrinsic factors. Intrinsic motivation, as described by Gom (2009), is an internal factor that adult learners encounter, giving them a strong desire to engage in learning activities. This is supported by Pintrich et al. (2007), who postulate that "People who are intrinsically motivated work on tasks because they find them enjoyable. Task motivation is its reward and does not depend on explicit rewards or other external constraints" (p. 257). In comparison, extrinsic motivation will lead adult learners to enroll in a program for external compensation (Gonzalez et al., 2005) or because they enjoy receiving compliments or appreciation from others (Nas, 2016), rather than because they are interested in the program.

Like all learners, adult learners' motivation to learn is shaped by various factors that determine the type of behavior they exhibit (Chan et al., 2017). From Hamzah et al.'s (2022) perspective, when adult learners enroll in their programs, they are motivated if their enthusiasm allows them to engage in activities leading to their success. As indicated by Morris et. al., (2022), motivation is based on the experience encountered by adult learners. Motivation is difficult to define since it cannot be directly validated or measured by physical or natural sciences (Galbraith, 1990, as cited in Sogunro, 2015). However, it can help improve understanding of individuals' performance and behavior (Galbraith, 1990, as cited in Songuro,

2015). Therefore, the researcher considers it essential to give more insight into the role of motivation in adult learning by defining it. Motivation, as defined by Teowkul et al. (2009), is “people’s needs and desires that influence their behaviors” (p. 27). Santrock (2018) also describes it as “the processes that energize, direct, and sustain behavior” (p. 424).

In addition, as emphasized by Patterson et al. (2016), adult learners may have enrolled in adult education programs for different reasons and are therefore driven to make such decisions by their motivation (Comings, 2023). Also, when adult learners decide to enroll in adult education programs, they are driven by an internal need that propels them to change themselves or their environment (Reeve, 2015). More specifically, as highlighted by Silliman et al., (2018), they can be motivated to get enrolled in these programs for financial gains, improved qualifications, or promotion. Whatever the reason for their motivation, their behavior can be affected, as they focus primarily on achieving goals they believe are motivating (Boström et al., 2020). In this regard, the motivational aspect of learning is highly significant to the adult learner, as their perception of their ability to learn (Murray, 2011) or their thoughts about their level of knowledge or learning (Dweck, 2010), can affect how they learn.

If an adult learner perceives learning as a static process, that learner would be less likely to be motivated to learn new things (Dwek, 2010). Added to this, adult learners who fail to perceive that the effort that is exerted and success are correlated will be less likely to put effort into their work as they are not motivated to do so. (Murray, 2011). If adult learners are motivated, they will seek to overcome any challenge that they are confronted by in the learning environment, as well as seek to perform at a high level academically (Chan et al., 2017).

Moreover, if motivation is positive, it will assist adult learners by creating a learning process that promotes and encourages their engagement (Boström et al.,2020). Since motivation is significant to adult learners, the factors that could create barriers to motivation must be examined.

2.5.4.3 Factors affecting motivation to learn. Adult learners' age, gender, and level and quality of education will determine their motivation to learn (Hughes et al., 2005). Research by Boeren (2017) indicates that the older an individual is, the less motivated they are to learn. In addition, age-related factors can pose barriers such as impaired vision and mobility, transportation issues, and time constraints (Wlodkowski et al., 2017). Furthermore, Wlodkowski et al. (2017) assert that adult female learners tend to value additional education and are motivated to pursue it to seek economic benefits. While age and gender are significant factors in determining an adult learner's motivation, race, ethnicity, and employment status can also influence motivation (Hughes et al., 2005). In addition, social origin plays an important role in individuals' enrollment in educational institutions.

2.6 Effect of social origin on adult education

An adult learner's social origin can explain their inability to enroll in adult education programs (Erikson, 2019). Research indicates that there is a correlation between a person's social class, status, income, parents' educational attainment, and the level of education they attain once they reach adulthood (Erikson, 2019). Consideration should be given to educational attainment among males and females by social origin (Erikson, 2019). Research indicates a 25% difference between the groups in educational attainment (Erikson, 2019). Further, the effects of social class, parents' education, social status, and income cannot be examined collectively, as these factors will affect individuals differently (Erikson, 2019). Based on these factors, Erikson (2019) asserted that educational performance in individuals transitioning to a higher level of education and being given a choice of selection of education based on performance differs among individuals by their social origins, inequality of access to education both formal and informally, in the working population, could result in some adult learners being disenfranchised from participating in these adult learning programs (Rubenson et al., 2009).

Also, of significance to adult education are the factors that can inhibit adult learners

from engaging in education, and these will be examined below, considering Cross (1981).

2.6.1 *Other barriers to adult learning*

Barriers to learning are subjective because they are context-dependent (Rubenson et al., 2009). Hence, an adult learner's experience of barriers to learning may differ from that of other learners (Rubenson et al., 2009). Additionally, the nature of the economic-political model is also significant in determining the barriers that exist among adult learners. One such model is neoliberalism, which is viewed as an inadequacy within individuals that will motivate them to become more productive citizens. In addition, Desierto et al. (2020) believe it results in substantial benefits for a small minority of citizens.

Neoliberalism, as defined by Harvey (2005, p. 2), is "a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within the institutional framework characterized by strong private property rights, free markets, and free trade." If examined within the field of adult education, it is designed to bring significant benefits to a small group of elitist learners who can afford to pay for their adult education programs on the one hand and very few rewards to the majority of learners who cannot afford to pay for their education (Abendroth, 2014). As further postulated by Harvey (2005),

If education is consumerized in a way that it is afforded only by the elites, as Abendroth (2014) suggests, that will create barriers for adult learners who cannot afford the product.

Hence, adult learners can encounter barriers to learning before and while enrolled in adult education programs (Cross, 1981). According to Cross (1981), these barriers are labelled as situational, institutional, and dispositional. In addition, Potter et al. (1992) introduced academic factors that could prevent learners from enrolling in adult education programs. Other researchers have defined these barriers, and these will be examined below.

2.6.1.1 Situational Barriers. Sheldon (2021) defines situational barriers as any obstructive situation encountered in life by adult learners that prevents them from continuing their education. Such factors could involve conflict between the adult learner's family, work, and community roles, thereby preventing the adult learner from enrolling in adult education programs (Fagan, 1991). Further, as highlighted by Cross (1981), accessibility to the programs, in terms of proximity to where they are conducted, is also of great significance to the adult learner. Moreover, adult learners' enrollment in the programs is contingent on the support of their significant others, their available finances, and their time and energy. While unemployment can be viewed as a barrier to adult education (Cross, 1981), it can also serve as a motivation to enter adult education programs, as adult learners may seek to find employment quickly (Rubenson, 2013).

2.6.1.2. Institutional barriers. According to Sheldon (2021), institutional barriers are centered around the educational institution and focus on the institution and any policies or procedures that interfere with their learning. Further, Potter & Ferguson (2003, as cited in Günen & Vural, 2023) describe these barriers as factors that are "biased against or ignorant of the needs of adult learners" (p. 8). These barriers are often cited as responsible for some adult learners' inability to complete their programs (Bergman et al., 2014). Institutional barriers are also significant to adult learners enrolling in educational programs and maintaining their enrollment. Suppose adult learners are to be motivated about the offerings of institutions and support services, including course offerings, admissions requirements, how courses are structured and delivered, the timing and scheduling of courses, the behavior of administrative support and academic staff, the library, computer, and other support resources (Cross, 1981). In that case, these factors must be well taught about and taken into consideration during the planning process.

2.6.1.3 Dispositional barriers. Moreover, factors that are inherent to the adult learner can create barriers to enrollment. Such barriers as highlighted by Sheldon (2021) could prevent adult learners from learning. In addition, Fagan (1991) refers to these barriers as attitudinal factors that capture the learner's ability to register, enroll, and complete given learning activities. Dispositional barriers encompass factors such as the level of confidence of the learner and other attitudes about themselves possessed by the learner, negative experience of the learner acquired from prior learning, perceptions possessed by learners about the programs, and individuals involved in the programs such as facilitators and other administrators involved in the programs and the health and wellness of the individual which can affect their learning

2.6.1.4 Academic barriers. As described by Potter et al., (1992), learners who do not possess the necessary academic skills conducive to learning will experience academic barriers. Such barriers will exist for adult learners if the skills required to continue learning were not mastered during childhood or the adolescent years (MacKeracher et al., 2006). Such skills will include literacy, reading and writing, listening, critical thinking, examination, and test writing.

The level of educational attainment also acts as a barrier to adult learning. The benefits derived from educational attainment arise from access to economic resources and from how individuals are socialized into education (Buchmann & Hannum, 2001).

2.6.1.5 Approaches to assist adult learners in dealing with barriers. Adult learners enter the learning environment self-motivated, independent, and with a wealth of experience (Knowles, 1980). However, these come with many challenges, which may be financial, family-related, job-oriented, or medical (Ross-Gordon, 2011), which could lead the adult learner to encounter situational, institutional, and dispositional barriers, as highlighted by Cross (1981), or academic barriers (Potter et al., 2003). To assist adult learners in developing a greater appreciation for their learning environment and to make their courses more welcoming, participation by faculty members, administrators, staff, and educational leaders is required

(Baharudin et al., 2017). Additionally, the courses for these adult learners should be structured to involve them, as this will help mitigate perceived barriers to learning (Gagne, 2017).

2.7 The governance of adult education programs in the Caribbean

Adult education in the Caribbean context is an important component of economic development. As such, attention must be focused on the adults in society who bear the responsibility of deciding on the development of their country (Ellis et al., 2000). Since adult learners are the agents of change in any economy, any programs implemented must ensure that these learners are equipped with the required skills and attitudes to function as productive citizens locally, regionally, internationally, and globally (Ellis et al., 2000). This underscores the importance of countries having well-planned, appropriate, relevant, and properly executed adult education programs (Ellis et al., 2000) and emphasizes the need for proper management of these programs. Also, if adult education programs are well planned and executed, it could lead to countries achieving their goals (Ellis et al., 2000), and this could yield significant benefits. The evolution of adult education from the past to the present needs to be examined to understand its nature and successes adequately.

The Caribbean region is organized into 2 groups comprising the Caribbean Community, referred to as CARICOM, and the Organization of Eastern Caribbean States (OECS), which is a subsidiary of the group of CARICOM States. The islands that are involved in adult education under the ambit of The Caribbean Common Market (CARICOM) comprise islands demarcated by Florida in the north and the northern coast of South America including Guyana and Suriname (Ellis et al., 2000). As mandated by CARICOM, these islands are under the control of the Caribbean Regional Council for Adult Education (CARCAE), which is responsible for implementing Adult Education in the region (Ellis et al., 2000).

For adult education programs to be effective, there must be a correlation between them and the context in which they will be applied (Jarvis, 2010). However, adult education and

learning, and, by extension, the programs related to such learning, are not standardized due to a lack of national policies and/or regional adult learning frameworks (George, 2021).

Additionally, there is also an ongoing debate on a suitable definition of adult education and learning in the Caribbean region which, for some Caribbean countries, hinges on the fact that adults leave school and enroll in continuing education (George, 2021). The lack of a national or regional policy on adult learning and education makes it appear as an afterthought in the education system and often results in difficult and ad-hoc planning and budgeting for the adult learning and education sector (George, 2021)

Moreover, adult Education programs in the Caribbean were provided by a combination of local non-government organizations (NGOs), International and regional organizations, trade unions, and other professional bodies, depending on the context (Ellis et al., 2000). Despite providing such programs, many stakeholders were not fully aware of the main role of these programs or of their contribution to national development. Some Ministries of Education would have established adult education units. However, the facilitators and learners did not appear to be fully aware of adult education and learning in relation to national development (Ellis et al., 2000).

Of utmost importance is that adult education programs reflect the socioeconomic situation of countries (Merriam et al., 2007). They forge linkages with the skills that individuals require to live to upkeep their economies. The success of adult education therefore should play a pivotal role in the development of these Caribbean countries., and according to CARICOM, if adult education is to play its role alongside and not behind the education of children, serious attention must be given to its content and delivery, to how it is administered and managed, and to ensuring that it caters to adults at all levels of the Caribbean Community. (p. 52). Further, much of the debate about adult education programs internationally and globally from an

economic perspective was centered around equipping citizens with workplace skills that will empower them to compete globally (Kubow et al., 2007).

Traditionally, adult education involved university-level education, development education centered on community, and education across all areas of literacy (Gordon, 1985). Also, in the past, the focus of adult education in the Caribbean was geared towards nation-building (La Belle, 1986) and the development of human resources, to create a more democratic political system (Lowe et al., 1971). In the 21st century, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) conducted several conferences and consultations to promote Adult Education, as part of its 2030 Millennium Goals. One such discourse is the sixth International Conference on Adult Learning and Education (CONFINTEA VI), which was held in 2009, where it was revealed by Sanchez-Vegas (2021) that adult education and learning in the Caribbean is necessary, as it will promote the need for individuals to live together as citizens who are productive and can compete globally. However, Uribe (2021) posited that despite this, adult education and learning in the Caribbean region are quite lacking and unfamiliar.

Additionally, the concept of lifelong learning has not yet been adopted by Caribbean Countries; therefore, UNESCO hopes to leverage the experiences of regional organizations and civil society to prioritize education worldwide and regionally, preventing the Caribbean region from being left behind in education (Uribe, 2021). As indicated by Mauch (2021), the Senior Program Specialist and Team Leader at the UNESCO Institute for Lifelong Learning, the significance of adult education should not be understated, especially considering the approaches to be adopted by Governments worldwide to achieve the UNESCO 2030 agenda on Education for All. In addition, some Caribbean Countries that are members of the Organization of the Eastern Caribbean States (OECS) view the increase in the dropout rate

among adult learners, as well as mental health and well-being issues, as issues plaguing adult education in the Caribbean region (Simon, 2021).

One major challenge in adult education programs in the Caribbean Region is finance (Simon, 2021). Except for Jamaica, with its Human Employment and Resource Training (HEART)/National Service Training Agency (NSTA), all islands in the Caribbean Region that have Adult Learning and Education programs lack funds (Simon, 2021). To accommodate the inclusion of Funds in the budget, some islands, such as Antigua and Barbuda, have begun the process of entrenching lifelong learning into their education act (Simon, 2020).

2.8 Summary

Mixed-methods sequential explanatory research, which includes a combination of quantitative and qualitative approaches in the same study (Creswell, 2012) will be used in this research. Simple random sampling will be used, which gives every item in the population an equal chance of being selected (Ortlieb, 2017). Additionally, purposive sampling will be used to select the participants for the study who the researcher believes have the requisite knowledge and experience to provide information for the research (Dolores & Tongco, 2007). As such, a combination of questionnaires, interview schedules, and observation checklists will be used as data collection tools. The research will also use a theoretical framework of andragogy as advanced by Knowles (1980).

The research aims to provide documentary evidence on how adult education programs are managed. The key point is whether tertiary institutions in Antigua and Barbuda are being efficiently managed and meeting their objectives. No known study of this nature has ever been undertaken in Antigua and Barbuda. The conduct of this study would therefore be important to Antigua and Barbuda, as it will mark the beginning of research in adult education and lifelong learning. It will provide answers on how these adult education programs are managed. There

is, however, a mere mention of adult education in Antigua and Barbuda's Education Act (2008) and Revised Education Sector Plan 2022-2027.

As O'Neil (2013) asserts, proper management and accountability of Adult Education programs are necessary, as they can help adult education learners continue their transition to lifelong learners. The researcher began conducting research in 2017 and used ProQuest, Ebsco Host, Eric, and Google Scholar, as well as search engines such as Google, Google Chrome, and Microsoft Bing. Filtering literature was done using abstracts. The researcher excluded most literature more than 5 years old, except for those deemed necessary for this research based on their relevant contribution to the body of literature in the field of adult education. Most of the selected literature focused on adult education and lifelong learning in the Caribbean.

Moreover, articles from researchers such as Knowles (1984, 1980, 1968) and his theory of andragogy form the theoretical framework for this research. Having looked at several theories of learning, such as cognitivism, constructivism, and andragogy, as advanced by Knowles (1980), the theory of andragogy was selected since it was more broad-based and could be implemented in varying institutions.

Different definitions of adulthood were explored in this research as espoused by researchers such as Lovell (1980), Herzog (2020), Guvar (2020), Wolf (2013), World Health Organization (WHO), as well as the Laws of Antigua and Barbuda Cap 11 S2 of the age of Majority Act 1984 (Antigua). This identifies the characteristics of the learners engaged in these programs based on the context in which they exist. However, the perspective of UNESCO (2015) is that adults are defined by their ability to adapt and perform sustainably when acquiring knowledge in their learning environment. Further, the expectation of adult learners based on their characteristics as adult learners was also examined. The expectations of these learners, as highlighted by researchers such as Knowles (1980), Ajailan (2015), and Lee et al. (2019), also formed part of the literature search, as they help concretize whether, indeed, adults

learn differently from children. The assumption of self-directed learning as a key component of adult learning, as advocated by Knowles (1980), has been highlighted in the literature.

The significance of adult learners' self-directedness was further explored, as it is relevant to the management of adult learning programs. The concept, as espoused, is an age-old one and could be helpful to managers and facilitators of adult education programs. Self-directed learning has different conceptualizations, and Loeng (2020) advises against defining it in a single way to avoid confusion in its interpretation.

Moreover, although self-directed learning will be helpful in both formal and informal contexts, it is necessary in a formal context. However, in formal settings, self-directed learning is facilitated by a facilitator rather than a teacher (Loeng, 2020). The attributes of self-directed learners are autonomy, self-awareness, and skill acquisition (Spencer and Jordan, 1999, as cited in Tekkel and Demirel, 2018). Many models of self-directed learning exist, but Garrison's (1997) model posits self-management, cognitive ability, and learner motivation. Further, Brockett & Helmstra (1991, as cited in Rosales & Junithesmer, 2022) realize personal responsibility as the main factor in self-directed learning. Also, self-directed learning could be highly personalized based on individual goals or social context (Morris, 2019a). Being personalized based on individual goals could prove to be problematic, as it is aligned to a teacher-centered approach to learning. However, if based on social context, it will facilitate flexibility in adult learners' thinking as deemed necessary (Morris, 2019).

Despite Knowles's (1980) assumption about the self-directed nature of adult learners and its usefulness in adult education, Bashir (2016) asserted that not all adult learners are self-directed and, based on their culture, might prefer a teacher-centered environment and be dependent on their facilitator for guidance. As also revealed by the literature review, some learners who are labeled as self-directed may not necessarily prefer to work alone and may require assistance from the facilitator (Chen, 2014). In addition, the definitions of adult

education provided by researchers such as Chang (2020) and Brown (2020) were examined to determine the nature of education that occurs within adult education programs. In comparison, researchers such as Brown (2020) assert that adult education can bring significant benefits to adult learners, equipping them with the skills needed to be productive citizens. Chang (2020) argues that it is often seen as supplementary education and not worth the financial investment in terms of marketability, competitiveness, and scientific definition (Chang, 2020).

The concept of lifelong learning was also defined by researchers such as Illic (2019) and Roosma & Soar (2017) better to understand its characteristics and their relationship to adult education. From the literature, Laal (2011) asserted that such learning occurs throughout one's lifespan, and Billett (2018) suggested that individuals' choice to become lifelong learners is personal and influenced by their social context and other factors.

Additionally, since there is no known research on the effectiveness of the management of adult education programs conducted in Antigua and Barbuda, it was important for the researcher to compare how adult education programs are conducted in the Caribbean since Antigua and Barbuda was once a British colony like other Caribbean Islands. The researcher was desirous of determining if the programs in these territories are operated differently. There is no detailed up-to-date literature on adult education and lifelong learning in Antigua and Barbuda. The only mention of adult education was in the Education Act (2008) and in documentation from UNESCO's meetings and conferences held about the Caribbean region. The literature also revealed that although adult education is embedded in the vision of the Ministry of Education in Antigua and Barbuda, there is no centralized overarching mechanism that governs the institutions. From the literature review, most countries of the Caribbean signed the Millennium Development Goal 4, which is promoted by UNESCO (2018), highlighting the need for countries in the Caribbean to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030 (UNESCO Institute for Statistics, 2018,

p.7). Adult education forms part of the inclusive and equitable quality education being promoted by UNESCO (2018). However, the literature indicates that most countries in CARICOM have not yet adopted the UNESCO (2015) definition of adult education, nor have they put in place policies to implement it (George, 2021).

There is also mention of adult education and lifelong learning in the Education Sector Plan of Antigua and Barbuda 2022-2027, to make them part of the educational structure. To date, no attempts have been made to implement such a structure within the education system.

In the absence of literature, heavy reliance was placed on research by Ellis et al. (2000), which focused on adult education in the Caribbean region. This justifies the need for more up-to-date research to be undertaken, and, more specifically, for this type of research to be conducted in Antigua and Barbuda.

Since the research also focused on how the adult education programs in Antigua and Barbuda are managed, the historical perspective of management was examined and the management theories from the classical management school as subdivided by Hitt (2009) as scientific management theory, administrative management theory, and the bureaucratic management theory were examined the neo-classical management and systems theory as well and contingency theory from the modern management theory. The overarching management style used in adult education programs could have implications for how the programs are managed and, hence, for their success or failure. The management styles used, therefore, need to be noted and customized based on the institution's individual context.

Of significance to this research are also the barriers that prevent adult learners from enrolling in adult education programs or completing their studies. To this end, the literature generally spoke about barriers to education advanced by Cross (1981), Sheldon (2021) and Potter et al. (1992). These barriers are identified as situational, institutional, dispositional, and academic. Such barriers can demotivate adult learners, and hence the relationship between

motivation and barriers, as posited by Brophy (2010), was also examined. The role of neo-liberalism, as postulated by Rubenson et al. (2009), as well as social origin, as articulated by Desierto et al. (2021), also formed part of this research. In this regard, the effect of the highest level attained by the parents of adult learners was examined to assess its impact on adult learners engaged in the learning process.

As adult learners in Antigua and Barbuda do so in a different context or environment, completing this research will give a different context in which barriers to adult learning will be explored. It would ascertain whether the factors deemed barriers in the literature review are similar to those affecting adult learners in Antigua and Barbuda from enrolling in adult education programs. In addition, motivation was explored in the literature as espoused by Wlodkowski et al. (2017). Therefore, it will also be shown whether the same factors in Antigua and Barbuda that motivate adult learners are the same factors affecting adult learners generally.

Another aspect of the literature review that has significance to this research is the way social origins, such as the education of parents, the social status and class, as well as the income of individuals as posited by Erikson (2019) affect adult learners' ability to access information and the extent to which it is prevalent in Antigua and Barbuda. Once the research is completed, this will be added to the body of literature on social origin.

From the review of the literature, it is evident that research is needed in Antigua and Barbuda, and much more needs to be done to ensure that adult education and lifelong learning are adequately documented.

The following section will focus on the research methodology.

CHAPTER 3: RESEARCH METHOD

3.0 Introduction

Over the years, no attempt has been made to determine if the adult education programs are efficiently managed and produce learners who are motivated to continue learning. The problem in Antigua and Barbuda with tertiary institutions is that there is an annual budget that allocates money to institutions that promote such learning. However, there is no known evidence that attention is paid to how these programs are managed or to the impact on learners' ability to continue their learning. The budgetary injections on an Annual basis in Antigua and Barbuda are quite significant, ranging from 11,142,705.95 in 2018 to 10,025,175.96 in 2023 (Ministry of Finance 2018, 2023). Notwithstanding the large capital injection in adult education institutions, adult education is not emphasized and/or promoted in the budget. No line speaks to Adult Education, but there are line items in place for the different institutions by name. Politicians and other government agencies in Antigua and Barbuda would not specifically discuss adult education, but would instead highlight the allocation for each institution. The question is how adult education is being managed and developed in Antigua and Barbuda, and what benefits are being derived from these institutions.

This sector in Antigua and Barbuda does not align with the worldwide standards posited by Dima et al. (2018). As such, adult education is intricately linked with having a population with the requisite skills and knowledge to compete in the global environment. It can be reasoned, therefore, that some emphasis should be placed on the efficient management of adult education programs. This necessitates the development of lifelong learning models that foster continuous knowledge acquisition, contributing to the overall development of individuals and the societies in which they live (Dima et al., 2018).

While these programs are funded annually, there is no known tracking and documentation of their success. Without proper monitoring of these programs, the justification

for yearly capital injections is not well understood. More must be done to ascertain how well the programs are managed and to determine whether they meet their objective of motivating learners to continue learning. This lack of information could retard any improvements to the programs and could well be deemed a waste of resources by government policymakers. It is, therefore, significant that government policymakers be better informed to make more meaningful decisions about filling any deficiencies in the programs once a determination is made about how they contribute to Antigua's social and economic development.

This research aims to fill the gap by justifying the provision of annual funding and by providing documentary evidence of the programs' efficiency. Adult education is also deemed important worldwide and in Antigua and Barbuda's society, as it is believed that successful adult learning can stimulate further learning among adult learners (Motschilnig, Thone-Geyer, & Kil, 2012). Additionally, as further highlighted by Motschilnig et al. (2012), proper adult education can lead individuals to develop personally and, in their societies, socially and economically. In support of the importance of successful adult education programs, UNESCO (1997) also believes that such programs can produce citizens who can contribute to the socio-economic development of countries.

It was also imperative to evaluate the factors that could affect the proper functioning of adult education programs. One such factor to be explored is the theory of andragogy as postulated by Knowles (1984). Furthermore, the factors that motivate adult learners, as posited by researchers such as Knowles, Holton, & Swanson (2014), Wlodkowski et al (2017), and Cross (1981), were also examined to determine the extent to which adult learners in Antigua are motivated to learn. Moreover, different theories about barriers to adult learning, as highlighted by a myriad of researchers and organizations such as Cross (1981, 1984); Rogers (1996); Rubenson & Desjardins (2009), and Social Research and Demonstration Corporation (2019), were explored to determine the barriers that could confront learners as they engage in

the adult education programs. As such, an examination of the curricula and gradebooks was conducted using the curricula used in the adult education programs, students' records, and relevant adult education literature. The effects of socio-economic factors, such as gender, and the highest level of education attained by the adult learners' parents, were scrutinized to assess their impact on learners in Antigua transitioning into lifelong learning. Such an exploration will form the basis for understanding the importance of undertaking this research.

This research aimed to explore and provide documentary evidence on the status of the management of the adult education program in 3 tertiary institutions in Antigua and Barbuda. How data was collected and analyzed was significant to the methodology used in the research. This research used a mixed methods approach. However, the researcher was aware that certain factors needed to be taken into account to address potential challenges. As indicated by Guest (2013, as cited in Adu et al.2022), the primary one centers on the different terminologies used to describe mixed methods approaches. It is believed that the terminology used to describe these designs could lead to confusion.

The researcher selected the sequential mixed methods design because it facilitated the collection of data from multiple sources within the same study (Dawadi et al., 2021). This approach allowed the researcher to collect quantitative data, which were used to inform the qualitative data (Wambugu & Njoroge, 2021). The approach also provided rich insights into the situation under investigation (Poth & Munce, 2020). The qualitative aspect of the research addressed the research questions that sought why and how answers in the study (Cleland, 2017), as well as gained an in-depth understanding of the innermost feelings of the adult learners, facilitators, managers, and Ministry of Education officials (Percy et al., 2015). Alternatively, the collection of quantitative data in this research helped the researcher to obtain measurable data, thereby contributing to the expansion of the research (Dawadi et al., 2021). Additionally, a review of the curricula and the gradebook was conducted. It entails examining

written documents to clarify a phenomenon under investigation (Aydeniz & Süleyman, 2021). The researcher identified common threads in adult learners' curricula, suggesting that they were being taught differently from children, and documented these. In addition, the grade books of selected learners were examined to determine their performance levels.

This chapter provides information on the research method and design. It describes why the mixed methods approach, in particular the sequential explanatory mixed methods approach, was more appropriate for this research and why this Mixed Methods approach was selected over other available methods. The chapter also highlights the population of adult learners and facilitators for research, as well as the techniques and steps used to select the samples. In addition, the researcher conducted a document review of the curricula and gradebooks of adult learners to determine the roles they played in transitioning them into lifelong learners. Therefore, a discussion will be held about the review of these documents. Moreover, the researcher will further discuss the research tools used in this research, such as questionnaires and interview schedules, as well as their development. This chapter also discusses the ethical principles that must be adhered to in undertaking this research. In addition, the data collection and analysis processes are critical to this research, and the researcher will highlight the procedures used.

The following section will highlight the research approach and design to be adopted.

3.1 Research Approach and Design

The philosophical perspective of a researcher is significant to the research method (Brian, 2012, as cited in Dawadi et al., 2021). As such, the researcher chose two major research paradigms of positivism and interpretivism. From the positivist perspective, the researcher views research as the acquisition of knowledge based on facts that can be quantified and verified. Therefore, this necessitated the use of quantifiable tools to gather data in research (Dawadi et al., 2021). For this research, the determination of socioeconomic factors such as

age, gender, and social origin as well as the extent to which social barriers hindered adult learners transitioning to lifelong learning, necessitated that quantifiable data be collected and interpreted using quantifiable means. Moreover, adult learners were given a closed-ended questionnaire asking about their experiences in the adult education program.

On the other hand, from an interpretivist perspective, the researcher holds that there is more than one reality and that reality is shaped by how individuals view it (Brian, 2012, as cited in Dawadi et al., 2021). Data focused on the experiences of adult learners, facilitators, managers, and Ministry of Education officials, how they felt about the adult education programs, and the impact of these programs on their transition to lifelong learning. The thrust of this aspect of the research was to help the researcher better understand the operations of the adult education programs (Dawadi et al, 2021).

The nature of this research, therefore, required a two-pronged approach to data collection. The researcher chose a mixed-methods research design to obtain a wide range of perspectives, especially from adult learners. This ultimately resulted in an in-depth understanding of the research problem (Leavy, 2022). While the researcher collected quantitative data on adult learners, the researcher believed that getting different perspectives from the adult learners, facilitators, heads of Institutions, and Ministry of Education Officials enhanced the quantitative data with detailed descriptions (Creswell & Creswell, 2018). If used unilaterally, the qualitative data would not be adequate to make generalizations about the population of adult learners (Sakata, 2022). Many mixed-methods research Designs were examined before the researcher selected a design. The researcher first decided to use a mixed methods approach because it had been used previously in educational research (Vivek et al., 2023). According to Creswell (2012, as cited in Vivek, 2023), several factors must be considered when selecting a mixed-methods research design. The researcher selected the mixed methods design based on 1) the data that was given greater precedence, 2) how the researcher

analyzed the data, and 3) whether the data was mixed during the collection phase or the analysis phase.

Considering the factors above, the researcher collected the data sequentially to enhance the validity of the data collected in the quantitative phase (Creswell & Plano Clarke, 2018). As such, several core mixed methods approach, as advanced by Creswell & Plano Clarke (2018), were examined: the sequential explanatory design, the sequential exploratory design, the convergent parallel design, the embedded design, and the transformative design. With the mixed-methods sequential explanatory design, quantitative data will be collected and analyzed in the first phase, and qualitative data will be used to explain the quantitative data (Creswell & Plano-Clarke, 2018). Also, this design would add validity to the research at each phase, since the data collected in the quantitative phase of the study would be handled separately from those collected in the second phase. The data in the second phase would then be used to explain the quantitative data. Alternatively, the sequential exploratory design involved collecting and analyzing qualitative data in one phase, followed by collecting quantitative data in the second phase. This phase would be used to validate the findings from the first phase's qualitative study. Like the Sequential Explanatory Design, this design was time-consuming; however, it could also have helped the researcher gain a deep understanding of the phenomenon under investigation.

Moreover, this research design also required time to implement because the phases are executed sequentially. However, the quantitative phase can be clarified by the data collected in the qualitative phase (Creswell & Plano, 2018). Moreover, the convergent design allowed qualitative and quantitative data to be mixed, with the results triangulated. This approach would enable the concurrent collection and analysis of both qualitative and quantitative data, allowing for separate analysis using techniques relevant to each type of data (Creswell & Plano Clark, 2018). Furthermore, although this approach highlighted the strengths of both methods for this

research, integrating them would be challenging. The embedded design utilizes both qualitative and quantitative approaches in a balanced way, but maintaining that balance could prove difficult, potentially affecting the research's integrity. The transformative design would also be challenging to implement, as it could necessitate additional resources (Sakata, 2022). Notwithstanding this, Sakata (2020) articulates that this design allows for the integration of the research undertaken and social action

All methods described have pros and cons, but the researcher chose to use the Mixed Methods Explanatory Sequential Design because it allowed the researcher to delve into the feelings of adult learners, facilitators, heads of institutions, and Ministry of Education Officials, which outweighed the disadvantage of its time-consuming implementation. As further articulated by Creswell (2015), the researcher also selected this design because it is widely used in educational research. Additionally, the researcher selected this design because it enabled adequate investigation of the efficiency of how adult education programs are managed from different perspectives. to corroborate the results from the quantitative phase and to give a more in-depth explanation of the results attained. Furthermore, it added credibility to the selection, as it was used in a study by Salloum et al., (2019) to determine how literacy programs affect children's reading abilities. It was also used in a Study by Matthews and Lopez (2020).

Having explored the designs, the next section will focus on how the design is laid out.

3.1.1 Research Design

Using design in research will facilitate the availability of information about the research process (Creswell, 2014). Having selected the Explanatory Sequential Mixed-methods Design, the researcher laid out the research steps.

After gaining approval from UREC and before embarking on the data collection process, the researcher sought permission from the Heads of the institution by issuing a Gatekeeper's letter (Appendix C). This letter sought assistance with providing a list of all adult

learner participants who are 20 – 40 years old from each institution who qualify to be selected. For the quantitative aspect of the research, which entails completing a questionnaire by the adult learners (Appendix F), a sample of 50 adult learners from each institution was selected using simple random sampling. Questionnaires were then administered to adult learners for completion face-to-face.

The participants are enrolled in all three tertiary institutions in Antigua and Barbuda. For the interviews, approximately eighteen adult learners were drawn from each tertiary institution using purposive sampling. Participants were interviewed in the environment in which they function daily. Further, participants were requested to share their experiences with the adult education programs in which they are enrolled. The curricula of the adult learners were then examined to determine whether they differed from those used to teach children and whether the core activities and writing suggested a student-centered approach to the teaching and learning environment.

The steps are given below.

Phase 1

1. The researcher issued a questionnaire to 150 adult learners face-to-face. These adult learners were selected using simple random sampling from a sampling frame of 300 adult learners aged 20 to 40. The data collected was analyzed, and any anomalies highlighted were clarified in phase 2.

Phase 2

2. The semi-structured interview schedules were used to interview the 18 adult learners, 18 facilitators, 3 heads of institutions, which comprise all the heads of institutions, and 2 Ministry of Education. The data from the qualitative phase were analysed manually using codes and themes (Saldana, 2021).

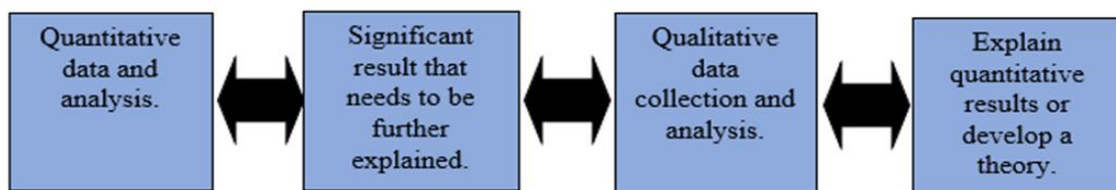
3. The results from the second section of the qualitative phase, which consists of the grade books and curricula, are also analyzed using a predetermined rating sheet.

The results from Phase 1 and Phase 2 are then triangulated. According to Munafò and Davey Smith (2018), the results from Phases 1 and 2 will be integrated.

The steps undertaken in the sequential Explanatory Mixed Methods Design is now shown diagrammatically in Figure 1.

Figure 1

Explanatory Sequential Mixed Methods Design



Source: Adapted from Ngulube (2020)

3.2 Population and Sample of the Research Study

It is not always possible to carry out research on an entire population and therefore sampling is undertaken. This process involves the selection of participants of research which could be individuals or objects (Aubrey, 2019). Added to this, the correct sample size must be selected and to ensure that this is done, the researchers used Raosoft (2004) to calculate a sample size. The sample was therefore calculated using a 90% confidence limit and a 6% margin of error and 50% distribution.

Prior to collecting data, the researcher established a schedule as well as the process for data collection as shown in Table 2. This was used as a guide for the researcher during data collection.

Table 2*Process of Collecting Data*

Activity	Time Allotted	
Creation of instruments	Weeks	1 – 3
UREC Application	Weeks	4 – 7
Scheduling meetings with participants. Receive verbal approval from participants.	Week	8
Issuing of Questionnaires/Questionnaires	Weeks	9 -10
Tabulation of Data from questionnaires	Week	11
Analysis of Data from questionnaires	Weeks	12-13
Adjustment to the semi-structured instrument to include data from a questionnaire that needs further explanation.	Week	13
Collection and analysis of responses from the interview schedule using codes and themes.	Weeks	14 – 15
Triangulation of results	Week	15-,16

The researcher tried to follow this guide as closely as possible, given time constraints. Sometimes, the researcher had to repeat processes due to unforeseen circumstances encountered by participants.

Additionally, prior to collecting data, the researcher established the sampling frame. The research target sampling frame was 300 year-one adult learners aged 20 – 40 years taken from 3 tertiary institutions in Antigua and Barbuda. The adult learners selected were between the ages of 20 and 40 years as they are deemed more mature and would possibly respond more

accurately to the questions being asked. The adult learners comprising the sampling frame for each institution are listed in Table 3. The breakdown of adult learners by institutions is as follows: Antigua State College, 135; Antigua and Barbuda Institute of Continuing Education, 112; and Antigua and Barbuda International Institute of Technology, 53. The allocation of adult learners was further broken down by gender.

Table 3

Distribution of Adult Learners by Gender and Institution

Name of Institution	Allocation of population For adult learners	Allocation of population by gender	
		M	F
Antigua State College	135	55	80
Antigua and Barbuda Continuing Institute of Education (ABICE)	112	47	65
Antigua and Barbuda International Institute of Technology.	53	19	34
Total	300	121	179

A sample of 150 adult learners was then selected from the sampling frame of 300 adult learners who were given the close-ended questionnaire to complete. Further, 18 adult learners were also selected for the research using purposive sampling, 6 from each adult education institution. Six facilitators, from each adult education institution were also selected to be interviewed using purposive sampling. Apart from the wealth of knowledge about adult education possessed by the facilitators, a benchmark of at least 5 years of experience working in an adult education institution was used in the selection of the participants.

The allocation of facilitators is illustrated in Table 4 below.

Table 4*Distribution of facilitators by institutions*

Name of Institution	Allocation of the population of Facilitators
Antigua State College	20
Antigua and Barbuda Continuing Institute of Education (ABICE)	20
Antigua and Barbuda International Institute of Technology	15
Total	55

Limited input from the heads of institutions was sought to assist in selecting adult learners and facilitators, as they would know the ages of adult learners and the years of experience of facilitators. However, the researcher did not rely on the heads of institutions to select these participants. Selection was also based on their willingness to be interviewed.

These adult learners and facilitators were interviewed using a semi-structured interview schedule (Appendix F). Based on the selection criteria, the adult learners should have a good understanding of the study's objective. They would be able to make a meaningful contribution based on their own experiences (Etikan & Bala, 2017). Likewise, the 18 facilitators were selected from a pool of 55. These were selected from the pool of facilitators from all three adult education institutions using a purposive sample, since they were deemed to possess the answers sought by the researcher.

All three managers of the adult education institutions, as well as the two Ministry of Education Officials, were interviewed by the researcher since the number of participants is small. The researcher also administered a semi-structured interview schedule to these two sets of participants once they consented to participate in the research. The objective of conducting

interviews with adult learners, facilitators, Heads of Institutions, and Ministry of Education officials was to delve into their experiences and gather their opinions and feelings about how these programs are managed. Using interviews, the researcher also sought to gain a clear understanding of any situations that affected adult learners, in particular, before and during enrollment in the institution.

This mixed-methods research used a quantitative approach, and the researcher will further clarify how it was applied. From the total number of 300 adult learners calculated in Table 3, a random sample of 150 adult learners aged 20 to 40 was selected from all tertiary institutions. The steps in selecting a sample, as adopted from Taherdoost (2016) are as follows:

1. Defining the target population

The target population was adult learners enrolled in the 3 adult education institutions.

2. Selection of the sampling frame

Selection of those adult learners between the ages of 20 and 40.

3. Determination of sample size

The sample size was calculated using Raosoft (2004).

4. The sampling technique was then selected

Simple random sampling or probability sampling was applied. To select the sample, a list of participants in the sampling frame from all institutions was assembled, and participants were randomly selected and arranged by surname in alphabetical order. Each participant was assigned a number between 0 and 1 using Excel. A random number was aligned with each name, after which the list was sorted by name and random number. The names selected formed the sample.

5. Collection of data

Data was collected using a questionnaire instrument.

6. Assess the response rate

The rate of response of participants completing the questionnaire was assessed. One hundred and forty-seven participants out of 150 completed the questionnaire. This gives a completion rate of 98%.

In the qualitative aspect of the study, non-probability sampling was used to select participants. The sampling technique and the criteria for selecting adult learners, facilitators, Heads of institutions, and Ministry of Education Officials will be discussed in more detail below.

Non-probability sampling was used for the qualitative part of the mixed-methods research. Despite the subjective nature of non-probability techniques, the researcher used this method because it would have been impossible to randomly select participants capable of providing helpful information about their lived experiences in adult education programs (Staller, 2021). Non-probability sampling methods were therefore used to select participants for the qualitative aspect of the study, which comprised interviews and the examination of the records of the learners.' Non-probability sampling allowed the researcher to use judgment in selecting participants for the sample (Etikan & Bala, 2017). The researcher, therefore, had the autonomy to select participants in the sample who are knowledgeable about adult education programs and are equipped to provide answers to the research questions being probed. (Bernard 2001, as cited in Etikan et al., 2017). The age and gender of the participants were also taken into consideration, as the researcher wanted to hear the experiences of learners who were mature enough to provide honest responses (Ravitch & Carl, 2016). Furthermore, the researcher thought it important to select a mixed-gender group comprising males and females, as their perspectives on the program experiences might differ (Ravitch & Carl, 2016).

A purposive sample of 18 facilitators, 6 from each of the tertiary institutions, was selected by the researcher in consultation with the managers of the adult education institutions. The number of facilitators was drastically reduced, as in some cases the same facilitator taught

more than 1 course and an adult class. However, all 3 managers of adult education institutions and 2 Ministry of Education officials were used in the sample and were interviewed by the researcher. The researcher deemed the number of participants in the purposive sample adequate, following the suggestion of Roberts et al. (2019), who argue that if at least 6 participants are selected, analysis of the experiences of adult learners and other participants will be adequate. In comparison, Percy et al. (2015) suggested that a sample size of 8 to 15 adult learners is acceptable to ensure flexibility in meeting the minimum number of participants required. Such a sample size will also ensure that enough adult learners are interviewed to highlight common themes in their responses about their experiences, as well as to reach data saturation (Percy et al., 2015). Additionally, although data saturation varies with the type of data collected and the scope of the research, 8 to 15 is a recommended sample size to allow for data saturation (Drisko, 2019). Further, the researcher thought it was best to increase the sample size by 3, to accommodate the lack of data saturation in the responses.

After selecting the purposive sample, the researcher used a semi-structured interview schedule to collect data from 18 adult learners (6 from each tertiary institution) and 18 facilitators (6 from each institution). An interview schedule with open-ended questions was used as a guide throughout this process of gathering information on how adult learners, facilitators, and Ministry of Education Officials perceive adult education programs.

The data collection, therefore, involved the researcher interviewing the adult learners, facilitators, Managers of the adult education programs, and Ministry of Education officials using a semi-structured interview guide consisting of approximately 12 questions. Prior to this, 150 adult learners were given a questionnaire to complete. In the interest of time constraints in data collection, some questionnaires were also given to faculty members at adult education institutions for distribution, and they ensured that the questionnaires were completed by

participants and returned to the researcher. This ensured an almost 100% completion rate of the questionnaires, which were then returned to the researcher.

In addition to the interviews conducted, an analysis of the curricula created between 2019 and 2022 for the three adult learners from each institution was conducted, as these would have been the most up-to-date curricula used. The researcher examined the descriptions in the curricula, course content, course organization, course objectives, and course outlines to determine whether they reflected teacher-centered or student-centered teaching and learning environments. Moreover, the grade books for the three adult learners from each of the three adult learning institutions were analyzed to assess their performance and success while enrolled in the programs.

The researcher took several steps before collecting data, which were necessary to ensure the research was properly carried out. The researcher will therefore highlight these steps.

After getting approval from the UREC committee of UNICAF and before issuing the questionnaires and conducting the interviews, gatekeeper letters as shown in (Appendix C) were sent to the heads of institutions by the researcher requesting permission to undertake the study. The gatekeeper's letter (is) also (seeking) sought permission from the heads of departments for their assistance in distributing the questionnaires to the adult learners and facilitators. The researcher then called a meeting with all participants to inform them about the research, following which they were asked to sign the informed consent form (Appendix D). A separate meeting was held with the managers of the adult education institutions, and they likewise were briefed about the research and asked to sign the informed consent form. In addition to meeting with the participants in person, the researcher also sent emails explaining the research to all participants.

The way data is collected and the tools used to collect data are of significance to the authenticity of any research. As such the research tools used in this research will now be discussed in the next section.

3.3 Materials/Instrumentation of Research Tools

This research aims to investigate the efficiency of the management of adult education programs in Antigua and Barbuda to ascertain whether they are adequate for transitioning learners to lifelong learning. Since adult learners are deemed to learn differently from children, the extent to which andragogical principles were embedded in the curricula and teaching and learning environment will be examined. The research used a mixed methods approach, which entailed collecting both quantitative and qualitative data within the same study (Creswell & Plano-Clarke, 2018). Data was collected from adult learners, facilitators, heads of institutions, and Ministry of Education officials. A review of curricula and grade books was also undertaken.

A questionnaire was used to collect data from adult learners. As indicated by Akinci & Saunders (2015), the use of this instrument facilitated the researcher's collection of data from a large number of participants. It also allowed each respondent to answer the same set of questions in an order that was determined by the researcher Devaus (2002, as cited in Akinci & Saunders, 2015). The researcher used the questionnaire to collect preliminary data from 150 adult learners aged 20 to 40, randomly selected to participate in the study. The use of a questionnaire allowed the researcher to capture the thoughts and experiences of the adult learners using a slightly different approach, which did not require a depth of understanding. The questionnaire collected demographic data on adult learners, including gender, age, years of service, position, and socioeconomic status, to determine whether these factors might have influenced their perspectives on the programs. Data from the questionnaire helped the researcher determine the percentage of learners who transition from secondary to tertiary

education and their intentions after completing their studies. One limitation of using questionnaires is that the researcher will not be sure whether the data collected are accurate (Rowley, 2014). Furthermore, to ensure a high return rate for the questionnaires, the researcher distributed them face-to-face.

In addition, Interviews were conducted with adult learners, facilitators, Heads of Institutions, and Managers of Educational Institutions. Interviews are a valuable tool compared to questionnaires when seeking clarity on aspects of a questionnaire that need clarification (Rowley, 2014). It is also helpful since the researcher can select interview participants who are in a position to understand and answer questions about a situation. Moreover, a document review of curricula and gradebooks was conducted.

3.3.1 Questionnaire for Adult Learners

The researcher used the questionnaire to collect preliminary data from 150 adult learners aged 20 to 40, randomly selected to participate in the study. The use of a questionnaire allowed the researcher to capture the thoughts and experiences of the adult learners using a slightly different approach, which did not require a depth of understanding. The questionnaire collected demographic data on adult learners, including gender, age, years of service, position, and socioeconomic status, to determine whether these factors might have influenced their perspectives on the programs. Data captured from the questionnaire will assist the researcher in determining the percentage of learners who transition from secondary to tertiary education and the learners' intentions once they complete their studies.

The researcher sought a questionnaire that had already been used by another researcher and found an instrument developed and used by Sides (2021) to collect data for her research. The researcher then sought permission from Sides (2021) to adopt and modify the questionnaire to suit the research being undertaken (Appendix E). The questionnaire comprises four sections, ranging from A to D, and took approximately 15 minutes to complete (see Appendix F). Section

A seeks to gather demographic information from adult learners. This information is deemed necessary because it could affect their responses to their experiences. Section B of the questionnaire seeks to capture the learning experiences of adult learners, so the researcher can assess whether they are motivated to continue their learning. Additionally, Section C asks questions about barriers encountered before and after enrolling in adult education programs. This would provide insights into adult learners' motivation for continuous learning and whether they experienced inhibiting factors to learning. In Section D, which is the final section of the questionnaire, the focus was on the efficiency of adult education institutions. It sought to provide answers about whether adult education programs are meeting their objectives and about the effect on adult learners' transition into lifelong learning.

After obtaining permission from Sides (2021; see Appendix E) and confirming the reliability and validity of the research instruments, the researcher decided to complete the questionnaires face-to-face, as this ensured a higher return rate than online completion. Also, the researcher decided to use most of the demographic information in the questionnaire, such as age, gender, educational attainment, and the social status of adult learners, to determine factors that motivate or inhibit their enrollment in adult education programs. The use of this information also facilitated the researcher's comparison of learners who enrolled in these programs with learners who are likely to continue their learning. Further, to determine the level of motivation of the adult learners, as adopted by Sides (2021) and the Readiness to Learn Questionnaire, the researcher thought it best to use this model with slight modifications. The Readiness to Learn Questionnaire was developed by Smith et al. (2016) and tested and validated with a group of adults in the United States, and was found to be reliable. The validation of the questionnaire was completed by Roessger et al. (2020). In addition, the Readiness to Learn (RTL) scale was reliable for assessing whether adult learners were

motivated to learn and, perhaps, to continue learning through andragogy in their teaching and learning (see section B of the Questionnaire).

After making modifications, the researcher gave the questionnaire, along with the research questions and purpose, to a group of 5 adult education facilitators who are subject specialists and asked them to critique the questions for clarity. They were also asked to comment on whether the questionnaire questions were in keeping with the research questions and objectives. Subsequently, after receiving their feedback, slight modifications were made, and the questionnaire, along with the research questions and the purpose of the study, was once again given to another group of five experts, who were asked to highlight any aspects of the questions that were not clearly stated. Two groups of students were then recruited to complete the questionnaire at different times after the researcher explained the study and requested their consent to pilot the questionnaire instruments. These groups of students were not participants in the research. Once the questionnaire was completed, the responses of both groups were then compared to determine if any anomalies existed. Any anomalies found were sorted, and amendments were made to the questionnaire. Also, the questionnaire was reviewed by five faculty members to ensure that no ambiguous items were included. This was necessary because the researcher sought to ensure that the content was reliable and valid after some tweaks to the questionnaire (Sides, 2021).

As part of the mixed-methods research, the qualitative phase consists of interviews conducted to gain a deeper understanding of the phenomenon under investigation.

3.3.2 Interview Schedules

The semi-structured interview schedule with 12 open-ended questions was used as a guide when collecting data for questions one and four. It sought to determine whether the adult education programs in Antigua and Barbuda are efficiently managed and achieving their objective of transitioning learners into lifelong learning. The interview was selected as suitable

for questions that explore individuals' experiences (Braun & Clark, 2013). Also, as postulated by Creswell (2015), using interviews in research creates the potential for previous findings to be expanded and developed. Further, as articulated by Bearman (2019), the interview will facilitate the collection of data that will give the researcher firsthand access to the participants' feelings and perceptions of the adult education programs. Most importantly, interviews allow participants to express themselves freely because of their conversational nature (Kvale & Brinkmann, 2015).

The curricula and gradebooks of adult learners were also examined. Mertens (2020) recommends conducting group interviews to motivate participants who are afraid to respond when interviewed individually; however, the researcher felt that the interviewees would be more open and truthful in their responses if they were interviewed individually. The use of a semi-structured interview schedule during the interview process enabled the researcher to gather information relevant to the research questions under investigation (Mertens, 2020). It was also used to deepen understanding of adult learners' experiences (Bearman, 2019). For this study, different semi-structured interview schedules were constructed for each group of participants. The number of questions for each semi-structured interview schedule was 13 for adult learners, 12 for facilitators, 11 for managers, and eight for the Ministry of Education officials. Each interview should last for approximately 20 minutes. After searching ProQuest and the ERIC Database for dissertations and other research, the researcher found an interview schedule that could be adapted for this research.

The researcher then sought permission from Kirk (2019), a graduate who completed her doctoral dissertation and had previously used the interview schedule in her research (Appendix E). Upon receiving permission, the researcher made a few modifications to the interview schedule and adopted it for use in the research. In addition, as recommended by McGrath et. al. (2019), to ensure the suitability and fitness of the research schedule, the

researcher conducted test interviews involving two facilitators and two adult learners to ensure that the language used on the interview schedules was clearly understood by all participants as well as to ensure that the researchers' listening skills are adequate.

Further, as asserted by Bearman (2019), to ensure that the semi-structured interview schedule was effective, the researcher made sure that 1) the interview schedule was in keeping with the research questions being investigated (2) the interview schedule was organized in such a way to encourage conversation between the researcher and the participant and 3) the interview schedule was tried and piloted before being used. Moreover, each semi-structured interview schedule collected demographic information of each participant as the demographics could play a role in how the experiences in the adult learning programs are perceived. The demographic information was collected using closed-ended questions on the interview schedule. In contrast, the other questions were open-ended, giving the respondents latitude to respond based on their perception of the phenomenon and in more detail (Leggett, 2017). Interviews were conducted in person, and all the participants in the research were given the same questions (Faulkner & Faulkner, 2019).

3.3.2.1 Adult Learners. The semi-structured interview schedules for adult learners (Appendix F), both have two sections. The first section presents demographic data on the participants and includes eight questions that focus on adult learners' experiences with adult education programs. It specifically examined how adult learners felt about the programs and their motivation to continue learning (Appendix F). Adult learners who participated in the interview were required to be between 20 and 40 years old.

3.3.2.2 Facilitators. The semi-structured interview schedule for the facilitators also comprised two sections. The facilitators selected for the interview using purposive sampling were required to have at least 5 years of work experience in an adult education institution. The interview schedule consisted of 12 questions (Appendix F).

3.3.2.3 Heads of Institutions. Moreover, the semi-structured interview schedule for Heads of Institutions (see Appendix F) solicited responses regarding their feelings about their programs and how they are managed. The interview schedule also requested responses about the curricula used and the barriers to enrollment faced by adult learners. The Heads of Institutions were also asked about their views on the contribution that adult education programs make in their country.

3.3.2.4 Ministry of Education Officials. Moreover, the semi-structured interview schedule for managers (Appendix F) comprises eight questions soliciting responses regarding their feelings about their programs and how they are managed. The interview schedule also requested responses about the curricula used and the barriers to enrollment faced by adult learners. The managers were also asked about their views on the contribution that adult education programs make in their country. The viewpoint of the overarching body for adult education, the Ministry of Education, represented by its officials, was also sought (see Appendix F). They were asked to elaborate on their experiences with the adult education programs in Antigua and Barbuda, compared to those in Jamaica or other Caribbean countries.

3.3.3 Document Review

In addition, it will also be necessary to collect secondary data from existing sources (Boslaugh, 2007), such as curricula and student gradebooks, to establish patterns of performance. This will also help answer questions 1, 2, and 3. An analysis of three curricula and three grade books for students was conducted (Appendix F). This was undertaken to determine whether andragogy was built into the curricula and whether their performance levels could suggest a high level of motivation for the programs.

3.4 Operational Definition of Variables

Operational definitions define variables and give meanings (Kerlinger & Lee, 2000). As such, researchers need to choose operational definitions of the variables intended to be

studied (Furlong et al., 2000). The focus of this research is to investigate the efficiency of the management of the adult education programs and its effect in transitioning learners into lifelong learning in Antigua and Barbuda. In this regard, the operational definitions were necessary to measure the data collected and to give a clear definition to avoid uncertainty (Slife et al., 2016)

This mixed-methods research has the overall objective of determining whether adult education programs are managed in ways that support learners' transition to lifelong learning. In the quantitative aspect of the research, variables are used to examine, measure, and describe aspects of a sample, enabling interpretation (Andrade, 2021). As highlighted by Leacock et al. (2015), variables can be described as “conditions or characteristics that the researcher manipulates, controls, or merely observes. Variables can take on different values.” (pg. 33). A further categorization of variables, as articulated by Andrade (2021), that will be used in this research is dependent and independent. Dependent variables are those that depend on the independent variables.

In contrast, variables that can be manipulated and thereby directly affect the dependent variable are referred to as independent variables (Andrade, 2021). As such, the management of the adult education programs is the independent variable, since how they are managed could affect whether adult learners transition into lifelong learning. Therefore, lifelong learning will be the dependent variable being measured in the study. Further, the identified independent variables in the research can impact how management affects adult learners transitioning to lifelong learning. The effect of these variables depends on whether structures are in place to ensure learners are motivated to learn. Therefore, Section B of the questionnaire for adult learners examined how management-implemented learning preferences can affect the dependent variable of adult learners transitioning into lifelong learning. Additionally, Section C of the questionnaire focused on the independent variables of barriers encountered by adult

learners and how these impact the dependent variable, which is their transition to lifelong learning.

Moreover, some independent variables are abstract and need to be clearly defined. One such situation related to the study is the level of management efficiency required to determine whether adult learners would transition to lifelong learning. In such a situation, the researcher wishes to use indicators defined by Harvey (2012) as that aspect of the research that is observable and measurable, and used to define concepts in the study, as shown in Table 5.

Table 5*Indicators used in the Research*

Objective	Activities	Means of Verification	Assumption
1.To determine if adult education programs have reached the point of efficiency which will encourage learners to transition to lifelong learning	Examination of students' records to ascertain their level of success. Finding out the intentions of adult learners (by interviewing them) after they leave their respective institutions.	Reporting on the number of students who have intentions of continuing with their education. At least 70% of adult Learners' transition to lifelong learning.	Adult learners are given equal opportunities and access to education once enrolled in the programs.
2. To determine if management is efficiently managing adult education programs.	Interview a purposive sample of eighteen adult learners and facilitators.	90% of participants are of the view that the programs are appropriately managed.	Facilitators and adult learners are knowledgeable about the adult education programs
3.To determine the barriers for adult learners while enrolled in adult education programs	Data from a questionnaire adopted by OECD (2019) on adult barriers will be used to assess if any barriers exist. This will be done through the use of EXCEL	90% of participants are of the view that barriers exist.	Facilitators and adult learners are knowledgeable about adult education programs.

Additionally, the terms used in the research must be clearly defined to establish their true meanings. These terms will be discussed in the next section.

3.5 Operational definition of terms used in the research

The researcher also finds it necessary to operationalize some of the variables used in this study by stating how they are being measured (Khillar, 2022). While operationalizing a concept does not allow the researcher to stipulate exactly how the concept is fundamentally defined, it highlights how a particular variable is defined and measured in the study

(Khillar,2022). The operationalization of the constructs used in this research is presented in

Table 6.

Table 6

Operationalization of the Constructs used in the Study

Construct	As operationalized in the study
An adult	Any individual who has attained the age of 18years of age within Antigua and Barbuda (Laws of Antigua and Barbuda Cap 11 S2 of the Age of Majority Act 1984 (Antigua).
Adult Learner	An individual who has attained the age of eighteen years (Laws of Antigua and Barbuda Cap 11 S2 of the Age of Majority Act 1984 (Antigua). Such an individual would have enrolled in adult education programs in Antigua and Barbuda.
Adult Education	The organized educational programs that were designed for individuals who are intended to be adults within the context of Antigua and Barbuda (Williams, 2022).
Barriers encountered by adult learners	Obstacles encountered by adult learners, mainly before and during enrollment in adult education programs, could impact their enrollment and transition to lifelong learning. These could be physical or mental.
Effective Management or Organization	The proper use of all resources in adult learning institutions to ensure that these learners achieve maximum benefit from these resources, whether they involve curricula, teaching, and learning environment (Lyonga,NAN,2022).
Management of Adult Education	Those individuals who are directly in charge of the adult education institutions and who are engaged in the daily operation of the institutions.These individuals are also responsible for designing and initiating curricula and other resources used in adult education programs within their institutions to meet the identifiable objectives of their programs.
Ministry of Education Officials	These are individuals who are curriculum officers within the Ministry of Education in Antigua and Barbuda.
Motivation	The sustained activities initiated by adult learners throughout their enrollment in adult education programs (Cherry, 2010).
Transition to Lifelong learning	The process of adapting different phases in a new context of Education (Poquet et al,2021).

Based on Table 6 above, the constructs identified in the study are adult learners, barriers encountered by adult learners, management of adult education, and motivation. The way management deals with these variables in managing adult education programs will also determine how they transition into or continue in lifelong learning. In addition, the adult learners' questionnaire research question Section A looked at the collection of nominal data such as age gender, place of birth, place of residence, and level of educational attainment and enrollment of adult learners that are descriptive and have no quantitative value (William, 2023). Such variables are not categorized in an ordered way and therefore comparisons between two categories of nominal data will be made using chi-square statistics. These variables are also referred to as control variables since they cannot be interpreted structurally and have to be used in conjunction with other factors that are deemed to be uninterpretable if the researcher intends to make inferences relating to cause and effect (Keele et al., 2020).

Furthermore, Section B of the questionnaire sought to get information on learning preferences. Once these are ascertained and compared to the theory of andragogy as posited by Knowles (1984), the researcher would be able to determine if the management of the adult education programs has the correct curricula in place for learning to take place. It will also determine if the facilitators are teaching adult learners in a way that will motivate them to learn and continue learning. The learning preferences of adult learners were depicted using a five-point Likert scale since it is often used in studies undertaken in social science and educational disciplines (Joshi et al., 2015). The scale has five items which range from 1 = where the adult learners' selection could range from not at all signaling a high degree of agreement with the statements, 2 = very little agreement with the statements, 3 = partial agreement with the statement, 4 = highly agree with the statements and 5 = a very high agreement with the statements. This sought to measure the effect of adult learning preferences on their motivation to succeed and perhaps transition to lifelong learning. Moreover, this variable could influence

the success of the management of adult education programs in Antigua and Barbuda. In addition, Section B examined the correlation between the learning preference of adult learners and their motivation to complete and continue their studies. The nature of the correlation that exists will determine if the management of the programs has the enabling environment to transition learners to lifelong learners. Adult education programs should be managed in such a way as to provide opportunities in support of continued lifelong learning (OECD, 2019). This could be a measure of the success of these programs and therefore the correlation between how learners feel about the learning preferences which are a result of how these programs are managed and the extent to which the adult learners are motivated to continue with their learning could be established. As such, a Coefficient of Correlation will be used to determine the extent to which the management of the adult education program which is the dependent variable is affected.

Moreover, the motivation of adult learners could be triggered by the extent to which they are in favor of their learning preferences. The extent to which learning preferences affect adult learners' motivation to continue with their learning could also be of significance to this research. The coefficient of correlation measures the association between two variables (Schober et al., 2018), where a change in 1 variable triggers a change in another variable. In terms of distribution, which is continuous, to determine the relationship between the two variables, a Spearman rank correlation will be used (Schober et al., 2018). Further, as purported by Schober et al. (2018), the correlation coefficients can be measured using a scale ranging from -1 to +1, where a 0 indicates that there is no linear relationship between the two variables. As the relationship between two variables becomes stronger and approaches a straight line or a curve that is increasing or decreasing, an absolute value of 1 is reached (Schober et al., 2018). Table 7 below shows the guidelines for interpreting correlation coefficients. The strength of the relationship will depend on the magnitude of the calculated coefficient.

Table 7*Guidelines for Interpreting the Correlation Coefficient*

Coefficient	Correlation	Relationship
0.90 –1.00	Very High	Very Strong
0.70 – 0.89	High	Marked
0.40 - 0.69	Moderate	Substantial
0.20 – 0.39	Low	Weak
< 0.20	Slight	Negligible

Note: Adapted from “Correlation Coefficient: Appropriate: Use and interpretations” by P. Schober, Boer, L.A, Schwart, (2018), *Anesthesia and Analgesia* 126, p 1763.

Regarding the learning preferences as described in Section C, seek to solicit from the learners how they deal with new ideas learned, if instructors incorporate prior learning in the learning environment, how adult learners feel about their learning generally, their level of motivation in learning, and the mode of discussion of adult education programs. Section C of the questionnaire examines the barriers adult learners face before and during enrollment in adult education programs. As proposed by the OECD (2019), barriers such as lack of prerequisites for enrollment, programs being too expensive, courses offered at inconvenient times, children or family responsibilities, unexpected incidents that bar participants from education, and financial constraints are among the barriers encountered by adult learners. Such barriers could affect students' enrollment in adult education programs. These variables could determine the success of the adult education programs and eventually adult learners' transition to lifelong learning.

Alternatively, the level and efficiency of management of these programs could affect the variables stated above, as they are indicators of the programs' success. As such, the researcher will determine whether there is any correlation between these variables and the

success of managing these programs in transitioning learners to lifelong learning. Moreover, Section D of the questionnaire examines the efficiency of the management of adult education programs and the effect on lifelong learning. The section looks at the factors that can be used as indicators in determining if the programs are efficiently managed. The section utilizes a 5 - point Likert scale as highlighted by Joshi et al., (2015), with 1 = not at all signaling a high degree of agreement with the statements, 2 = very little agreement with the statements, 3 = partial agreement with the statement, 4 = highly agree with the statements and 5 = a very high agreement with the statements. The adult learners were asked their opinion on if they believe the adult education programs are being properly managed, their thoughts on the suitability of curricula, structure of subjects or courses, the level of engagement of the adult learners, and if the subjects being taught could motivate adult learners to continue with their learning. These factors are deemed independent variables as they could affect how the adult learners transition after they leave the institutions. To determine if there is a correlation between these variables, a correlation coefficient test was undertaken.

3.6 Study Procedures and Ethical Assurances

According to Simelane-Mnisi (2018), the nature of research, especially the type that involving human and animal participants, the research should adhere to ethical practices. Therefore, when conducting research, ethics must always be a consideration for the researcher (Ngulube, 2015). Permission was therefore sought from an ethical review committee based on the institution to which the researcher is attached (Simelane-Mnisi, 2018). For this research, permission was sought from UNICAF Research Ethics Committee (UREC) for UNICAF before collecting data for this mixed-methods research. All documentation, including the research ethics application (REAF), the research tools, the informed consent documents (Appendix D), and the goalkeeper's letters (Appendix H), were submitted along with the UREC application. Further, as suggested by Ngulube (2015), the researcher thought it was important

to plan an ethical research strategy that aims to protect the human participants in the research. This strategy encompassed adhering to most of the ethical issues suggested by Bryman and Bell (2015) as follows:

- i. Participants in the research should not be subjected to harm
- ii. All participants of the research should be respected at all times
- iii. The consent of all participants should be received before the start of the research.
- iv. The privacy of the participants should be protected at all times.
- v. Participants should be ensured of the confidentiality of the data given for the research at all times.
- vi. All participants and organizations involved in the research should be ensured anonymity.
- vii. The researcher should not exaggerate the aims and objectives of the research.
- viii. All affiliations, conflicts of interest, and sources of funding relating to the research must be declared.
- ix. The researcher must be transparent and honest with what is communicated about the research.
- x. The researcher must avoid reporting the findings of primary data in a biased way, as well as providing any misleading information.

Based on the ethical principles by Bryman and Bell (2015), the researcher of this study ensured that participants were not exposed to harm and are respected at all times. Moreover, the researcher ensured that the data that was collected from the participants was always kept confidential. This was done by assigning alphanumeric codes to each of the participants and the researcher was the only individual who could match these codes to the participants. Also, personal information such as the participants' names, student identification numbers, home addresses and other such identifying factors of the participants were not collected. Hence the

anonymity of all participants was guaranteed. However, although confidentiality and anonymity are of great significance to this research, they are sometimes misunderstood. According to Bos (2020), information collected from participants who do not wish to share it with others is considered confidential. Anonymity refers to the non-disclosure of the source of data collected (Bos, 2020).

Furthermore, as highlighted by Bryman and Bell (2015), the researcher was transparent and ensured that the research was communicated to participants honestly. The researcher also ensured that the primary data collected from participants were analyzed and reported in an unbiased way to avoid the reporting of misleading information about the research. The researcher, therefore, ensured that a plan of action was developed to guarantee that the process was followed at every step and this strategy was submitted in the UREC application. The research strategy looked at the ethical considerations highlighted by Bryman and Bell (2015). Also, ethical considerations, based on the research topic, the purpose of the research, the type of research, confidentiality procedures, and the participants' ability to volunteer, were provided in the UREC application for approval (Depoy & Gitlin, 2016).

Having received permission from Unicaf University Research Ethics Committee (UREC), and before embarking on the data collection process, the researcher also sought permission from the Heads of the institution by issuing letters requesting permission to undertake the research (Appendix B) as well as Gatekeepers' letters (Appendix C) outlining the research and the researcher's intention. The letters of intent explained the research in detail and outlined the research process. The researcher did not need to seek permission from the Antigua and Barbuda Institutional Review Board (ABIRB) because the research did not involve minors, that is, individuals under the age of 18 years. The adult learner participants were adults between 20-40 years old. The ABIRB is not a fixed board but comes together to

deal with research matters that need its attention. For example, research involving minors and individuals with disabilities.

A gatekeeper's letter was issued to the Heads of Institutions. This letter sought assistance from the Heads of Institutions for undertaking this research. Once the agreement was reached to participate in the research, a meeting was held with the three heads of institutions to explain the nature of the research and what was required. The researcher then requested a list of all adult learners between the ages of 20-40 years and in their second year of study from the head of each adult learning institution who were earmarked to participate in the research. A list of facilitators who worked at the institutions for at least 5 years was also requested. This list was used to purposively select the 18 facilitators for the qualitative phase of the study.

The researcher scheduled separate meetings for the facilitators and adult learners. For the quantitative aspect of the research, which entails completing a questionnaire by the adult learners (Appendix F), a random sample of adult learners from each institution was selected. This sample was based on the data on qualifying participants by institutions selected to participate in the study, as shown in Table 3. Based on the latest 2012 data, there is an expectation that the participants selected for the research may be skewed more towards the female gender than the male. This is based on the overall Tertiary Education Enrollment index for Antigua and Barbuda of 1.56, retrieved from the UNESCO Institute for Statistics (2012).

The researcher contacted all participants via email and telephone, providing a brief overview of the research. Then, the researcher asked if they were willing to participate in the research. The participants selected from the random sample for the quantitative phase of the research were scheduled to meet with the researcher on three different days due to the group size. Once the researcher met with each group, the entire research was explained, and participants were asked to seek clarification where necessary. This ensured that the participants

understood the aims and objectives of the research and that what was communicated about the research was transparent and honest. For this purpose, all misunderstandings about the research were clarified. They were again informed about the research and their rights to withdraw at any time without facing any penalties. The participants were also informed that their information will be kept in the strictest confidence and that the principle of anonymity would also be enforced throughout the research process. Each group of adult learners was then issued the informed consent forms to complete. Prior to completion, the informed consent form was read and explained to the participants, after which they were encouraged to seek clarification on any concerns before affixing their signatures and returning the forms to the researcher. This form emphasized that participants were free to participate and withdraw from the research at any time, both before and during the study. The informed consent form played a pivotal role in the research, as all participants must agree to participate before the process begins (UNICAF Lecture Notes on Research Ethics). Once the informed consent forms were collected, the questionnaires were administered to adult learners and completed face-to-face. The researcher scheduled meetings with the students from the adult education institutions on 3 different days, met with them at their institutions, and administered the questionnaires. The researcher stayed with the adult learners while they completed the questionnaires and returned them. The collected scripts were given alphanumeric names that ran sequentially.

In addition, when the questionnaires were issued to the participants, they were reminded about the confidentiality of the research. They were told that any information collected from them would be kept in the strictest confidence. Also, based on the ethical principle of anonymity, the adult learners were told beforehand to desist from writing their names on the questionnaire.

Moreover, for the qualitative phase of the research, where purposive sampling was used to select 18 adult learners and facilitators, 6 from each of the adult education institutions to be

interviewed for the research. Also, all 3 heads of adult learning institutions and 3 Ministry of Education officials were contacted to participate in the research. Since all heads of institutions agreed to participate in the study to be interviewed, there was no need to make a purposive selection. The same protocols were observed as with the quantitative phase of the research for the facilitators and Ministry of Education Officials. Permission was sought from the selected participants to record the interviews. This was sought before the interview began. However, due to an unavoidable technical issue, no recording was used, and the researcher manually wrote down all the responses, which the participants subsequently verified as correct.

The researcher also followed up on the assistance required from the heads of institutions, as mentioned in the gatekeepers' letters, to obtain access to the grade books of six adult learners from each institution for analysis. The researcher requested that the identity of these adult learners be withheld to protect the confidentiality of the research. The only stipulation made by the researcher in this regard was that the adult learners selected should be in their final year of study. To complete the gradebook, the researcher also requested access to the curriculum of six adult learners to identify signs of the application of andragogical concepts as posited by Knowles (1984).

The hard copy of the questionnaire was stored in a desk drawer in the researcher's residence, along with responses from the interview, other notes, and research-related documentation. Only the researcher has access to the completed questionnaires. The data was then tabulated and saved in a Microsoft Excel file, which was password-protected to ensure maximum security. Moreover, the data was later retrieved and placed in an Excel file on a password-protected computer. The researcher was the only individual who had access to the data.

3.6.1 Ethical Assurances

The sensitive nature of ethics in research dictates that all steps should be taken to protect the rights of participants engage in the research (Dobakhti, 2020). As asserted by Flick (2006, pg. 49) “you will be confronted with ethical issues at every step of research.” It is, therefore, pertinent for the researcher to ensure that close monitoring of the research process is undertaken from the planning stage to the reporting of findings stage (Dobakhti, 2020). The researcher is aware that carrying out research requires more than data collection, analysis of data, and reporting results. The research process from an ethical standpoint is one where researchers can barely “find easy and very general solutions to the problems and dilemmas” (Flick, 2006, p.56),

Data for this mixed-methods Sequential Explanatory Design study were collected using a questionnaire for the qualitative phase I and a semi-structured interview schedule for the qualitative phase2. Data was also collected from the grade books of students and curricula obtained from all three educational institutions.

Having received the requisite permissions, the researcher held meetings with the research participants to explain the purpose of the research and how it could benefit Antigua and Barbuda. The researcher also explained the roles that they would be playing in the study. Through verbal and written communication, as well as in-person meetings, the researcher assured the participants that the data collected would be used solely for research in answering the questions being investigated. Different institutions have varying research policies governing their institutions. As such, the researcher adopted the policy guidelines for UNICAF for the research (UNICAF, 2019).

The researcher ensured anonymity by verbally and in writing, using the consent form, assuring participants that any information provided would be kept confidential and anonymous. The principles of confidentiality and anonymity were again stressed when the researcher explained the process involved in completing the questionnaire to the adult learners prior to

their completion. The withdrawal of participants at any time was also stressed. The questionnaires completed were collected by the researcher and kept in a filing cabinet at the researcher's place of residence. Only the researcher can access the filing cabinet where the documents are kept.

researcher informed the participants that the data collected would be kept in a safe environment for a period of approximately 3 years. At that time, the hard copy of the questionnaires will be shredded and all soft copy files related to the research will be deleted. In addition, as stipulated by the UNICEF (2019) guidelines, since the researcher is dealing with human subjects' research, the researcher tried as much as possible to collect very little personal data on the participants. The researcher stressed to the participants that they should practice anonymity from others as much as possible. As such, they were forbidden from writing their names on the questionnaire, and their consent forms were matched to the questionnaires using the alphanumeric codes written on the questionnaires.

However, since the researcher wished to merge demographic data with other data collected for this research, it was also necessary to collect a small amount of personal data, such as age and gender (UNICAF, 2019). The presence of too much demographic data could lead to the identification of the participants. Despite guaranteeing the confidentiality and anonymity of all data collected from participants, the researcher identified participants by assigning alphanumeric codes to each. Participants' identities needed to remain anonymous and confidential.

For the qualitative phase of the mixed-methods explanatory sequential research, a similar protocol was adopted for the adult learners, facilitators, heads of institutions, and Ministry of Education officials. They were made aware of the research process by the researcher and were assured of confidentiality and anonymity of the data collected from the research. Interviews were arranged for the adult learners and facilitators on different days after

holding meetings to assure them that the researcher would protect their identity and that the information given would be held in the strictest confidence. Interview schedules were also organized for the heads of institutions and Ministry officials following the same protocols.

Some data was also kept on the researcher's laptop, and the researcher was very open and transparent with the participants, alerting them that their data would be protected. The data was protected, and only the researcher knew the password.

3.7 Data Collection and Analysis

The use of the mixed methods of explanatory sequential approach in this research signifies that quantitative data were collected and used to inform the qualitative phase, following which the data were analyzed and then triangulated within the same study (Creswell & Plano-Clark, 2018). Data were collected to determine whether the adult education programs in Antigua and Barbuda were appropriately managed and facilitated adult learners' transition into lifelong learning. All research instruments focused on collecting demographic data, including gender, age, place of residence, country of birth, and educational attainment. Quantitative data will be collected through a student questionnaire. In addition to the demographic data collected on all instruments, the questionnaire also focuses on educational level and the number of years spent out of school.

How adult education programs are managed has implications for the learners' teaching-learning environment. One area of concern is the learning preferences of the learners which would provide answers to research question 3. The learning preferences embedded in adult education programs could affect motivation, as motivation to learn is based on adult learners' prior socialization to learning. This bears relevance to their experiences and the material that will be learned (Hubackova & Semradova, 2019). Based on this, the researcher must examine the correlation between learning preferences and adult learners' motivation to engage in and

continue with their learning. This entails the type of curricula used in adult education programs, as well as the nature of the learning in which adult learners are engaged.

In addition to the collection of quantitative data, the researcher found it important to get an in-depth perspective of the adult learners, facilitators, heads of institutions and ministry of education officials to fully understand how these stakeholders feel about the management of the programs. The researcher used a semi-structured interview schedule to carry out the interviews. The qualitative data collection process involved interviews with adult learners, facilitators, managers of adult education programs, and Ministry of Education officials. These participants were purposefully selected based on criteria such as age and years of service, to ensure that they would be in a position to answer questions readily, knowledgeably and truthfully. In addition, curricula must be evaluated, since they play a vital role in determining whether the adult education programs are effective (Drakos, 2005, as cited in Nouraey et al., 2020). Such an evaluation would examine the content being taught in the adult education programs, the mode of delivery, and how students are assessed (Modgyes et al., 2000, as cited in Nouraey et al., 2020).

In addition, as purported by Rea- Dicking et al. 1992, as cited in Nouraey et al. (2020), the review of curricula was, therefore, necessary to ascertain the effectiveness of the programs to be reorganized. The review focused on evidence of the andragogical principles as these would impact the motivation of the adult learners to continue with their learning. if required. Data from the analysis of the curricula of the three adult learners from each adult institution formed a part of the data collection process. Also, the gradebooks of three adult learners from each institution were examined. The process for collecting qualitative and quantitative data for this research is outlined below.

Before embarking on data collection, the researcher applied for and received permission from the UNICAF Research Ethics Committee to begin the research (Appendix A). The

relevant documentation such as the informed consent form, sample gatekeeper's letter, and research tools to be used were all submitted along with the UREC application. Upon receiving UREC'S approval, permission was sought from the managers of the 3 tertiary institutions to undertake the research through the issuance of a Gatekeepers letter. This letter outlined the title of the research, the purpose of the research, and the assistance required for the research (Appendix C). It also entailed a request by the researcher to the institution's manager to obtain a list of qualifying adult learners aged 20 and above from each institution, along with their email addresses and contact numbers. From this list, a sample of 50 students from each institution was selected to complete the questionnaire using simple random sampling.

The researcher chose to use Microsoft Excel to randomly select the students who will participate in the quantitative aspect of the research. The process involves being randomly assigned to every other student on the list of those who qualify to participate in the research.

For the qualitative aspect of the research, minimal assistance was sought from the heads of institutions to select the six adult learners and facilitators who agreed to participate in the interview. These individuals were selected using a purposive sample and were deemed to have extensive knowledge of how adult education programs are managed (Cresswell & Plano Clarke, 2018). The researcher scheduled meeting with participants selected from each institution to explain the research protocol and distribute and explain the Informed Consent Letter. After that, participants were asked to sign the consent forms. A separate meeting was held for the Heads of Institutions, Ministry of Education Officials, and facilitators.

At the meetings, the researcher emphasized the ethical concerns associated with undertaking research. Of major concern to the researcher were participants' rights to withdraw at any time during the research, the confidentiality of the data collected, and the anonymity of participants (Rosnik, 2018). During the research process, the researcher ensured that the names

of the participants are held in the strictest confidence and participants' data, which will be collected, are stored in a safe environment.

The participants for the questionnaire were adult learners aged 20-40 years. The distribution of the questionnaire (Appendix F) was scheduled for 3 different days, with one day allotted for each tertiary institution. The questionnaire consisted of four sections, labeled as Section A, B, C, and D. Section A was designed to collect nominal information from the respondents, such as gender, age, place of residence, country of birth, and level of educational attainment. This type of data is nominal in nature and was useful for answering Research Question 1, which examined how well-equipped adult education programs are at transitioning learners into lifelong learning. Although this type of data is descriptive and has no quantitative value, the researcher intends to use the chi-square test to determine whether nominal variables, such as gender and level of educational attainment, have any bearing on the success of adult education programs in terms of enrollment and continued transition to lifelong learning. Also, the relationship between gender, educational attainment, and socioeconomic status could help the researcher answer research question 1. It seeks to determine whether any relationship exists between these nominal variables and adult learners' readiness to transition to lifelong learning.

Once such comparisons are made using the chi-square test, the researcher could make inferences from the results. Although the Chi-square test can analyze the democratic data within its categories, the test of the inferences made would be based on the extent to which the objectives of the hypotheses and the research questions are met (Schober & Vetter, 2019). As such, the researcher wishes to measure the relationship between one or more independent variables and the dependent variable. In this regard, the researcher will use the Variance test to determine the extent to which adult learners' opinions about the effectiveness of adult education programs differ by level of educational attainment and by barriers encountered before and after enrollment in the adult education programs.

Also, of interest to the researcher is the relationship between learning preferences and efficiency of the adult education programs, as shown in Appendix F, section B of the student questionnaire. Adult learners will be asked to respond to the statements using a 5-point Likert scale. The responses from the adult learners will be tabulated and these would be the independent or predictor variables, while management will be the response variable (Montgomery et al., 2021) A Coefficient of Correlation test will then be undertaken by the researcher. The result of such a test will determine if there is a strong relationship between student preferences and efficient management of adult education programs. Further interpretations could be made that if the programs are efficiently managed, the best practices to motivate students should be employed, so this would have implications for the management of the programs. It will also determine if the facilitators are using the best practices for adult learners as proposed by Knowles (1984) in the delivery of the programs.

Moreover, Appendix F, Section B of the questionnaire would also help answer Research Question 3. The Coefficient of correlation test could also be used to determine whether the learning preferences employed are motivating or demotivating adult learners to continue their learning. Based on the results, the researcher could determine whether learning preferences affect their motivation to continue learning. It will also speak to the management of the programs in preparing adult learners to make the transition.

As such, motivation was dependent, while learning preferences were the independent variable. Appendix F, Section C focused on barriers to adult education programs. A coefficient of Correlation test will also be undertaken to provide answers to research question 3. This test could indicate the barriers to learning encountered and their effects on adult learners' motivation to enroll in programs or continue their studies. If there is a strong relationship between the barriers encountered, it could indicate that the management of the programs could do more to address the issues. In addition, Appendix F, Section D of the questionnaire sought

to determine adult learners' perceptions of how adult education programs are managed. The adult learners were then asked to select their answers from a set of options on a 5-point Likert scale. The factors they were asked to comment on were the suitability of curricula and the structure of subjects or courses. The level of their engagement in the learning process, and if they would consider continuing with their learning. The adult learners' responses were tabulated and input to determine the extent of the effect of these variables on the management of the programs. Furthermore, since these responses were be deemed as independent variables, the effect of these variables on the management of the programs and transitions were determined.

As with the quantitative data, permission was sought from the management of the adult education institutions, and gatekeepers' letters were issued (Appendix C). Following this, a meeting was held with all participants to explain the research and the importance of confidentiality, anonymity, as well as to reiterate that the participants have the right to withdraw from the research at any time. The researcher will assure all participants that they will be respected and that their data will be kept secure. Further, all participants will then be asked to read and sign the consent form. Interview schedules were used to collect data from eighteen adult learners, eighteen facilitators, and 3 officials from the Ministry of Education. Participants were contacted by telephone, and appointments will be scheduled for face-to-face interviews. Each interview lasted approximately fifteen minutes. Interviews were conducted using semi-structured interviews in which the researcher carefully posed questions to participants while paying close attention to their body language and to areas of the interview where they appeared to be uncomfortable. In such situations, the researcher rephrased the questions and redirect these to the respondents. The data collected was then be analyzed.

Additionally, the grade books of three students from each institution were examined to determine their performance levels. The data analysis checklist is presented in Appendix F.

The data from this analysis will be compiled in a tally chart for further analysis. Also, three different curricula from each of the three institutions were analyzed as posited by Knowles (1984) for evidence of andragogical principles. This indicated to the researcher whether management's use of the curricula aligned with how adults learn.

3.8 Data Analysis Procedure

Data analysis is described by Shamoo & Resnik (2022) as a process where the examination of data and making logical inferences from the data can be understood. Data analysis in this mixed-method research was undertaken with data collected quantitatively and qualitatively. The use of both approaches in this research was designed to help the researcher garner new ideas and thought processes (Cresswell & Plano Clark, 2018). The use of quantitative and qualitative data helped the researcher significantly as it contributed to the overall analysis of the research since both sets of results were triangulated. To evaluate the questionnaire responses, the researcher assigned values and placed the Excel data, and analysed using the Statistical Package for Social Sciences (SPSS). Some of the data was also analysed using Microsoft Excel. The quantitative aspect of the research provided answers to Research Questions 1, 2, 3, and 4.

From a quantitative perspective, the data gathered from the questionnaire were analyzed, and the results were used to inform the interview questions. The aspects of the questionnaire results that were unclear were incorporated into the semi-structured interview schedules to allow the researcher to delve deeper into the phenomenon and seek clarification (Creswell & Plano Clark, 2018). The Chi-square test of independence was also used to determine the relationship between different factors in the study. The researcher looked at the relationship between gender and adult learners' motivation to continue learning, as well as the roles that barriers played in the motivation of adult learners to continue learning and the effect that the educational levels attained by the parents of the adult learners played in their motivation

to continue learning. This helps the researcher eliminate factors that could influence the results of the data collected.

Qualitatively, the results from the questionnaires were taken into consideration when constructing the semi-structured interview schedule. Data garnered from interviews were analyzed manually by the researcher using codes and themes. Once the interviews were completed, the researcher manually read the transcripts from management, facilitators, adult learners, and Ministry of Education officials several times. The common phrases based on the questions asked of the respondents were identified, and similar data were put into themes (Hashimov, 2015). Each theme was assigned a code to enable frequency tallying. Any theme that is an outlier was treated as a new theme that has emerged and was considered when analyzing the data.

Once the responses from the questionnaire, interviews with facilitators, adult learners, heads of Institutions, and Ministry of Education officials were completed and analyzed, the results from the questionnaires, interviews, and gradebook were triangulated. The process of triangulation facilitated the researcher's use of different methods to obtain multiple perspectives on the phenomenon under investigation (Mertens et al., 2012). Therefore, the researcher will have different perspectives on how the adult education programs in Antigua and Barbuda are managed,

3.9 Summary

This chapter discusses the research questions and the study's purpose, focusing on positivism and interpreter perspectives, which highlight the views of the participants of the research and delve into how individual participants view the world (Dawadi et al., 2021). Many mixed-methods approaches could be used; however, the researcher selected the mixed-methods convergent sequential triangulation approach as it was more suitable based on the time constraints faced by the researcher. As articulated by Creswell and Plano Clarke (2018), this

approach combined quantitative and qualitative data in the same study sequentially (Creswell and Plano Clarke, 2018), allowing for a deep understanding of the phenomenon being investigated. The use of this mixed method explanatory sequential design also allowed for the validation of the quantitative method through the use of the qualitative phase. The Quantitative data was collected through a questionnaire that was administered to adult learners. The questionnaire aimed to understand adult learners' preference for learning, focusing on motivation, learning orientation, self-concept, and andragogical assumptions. The questionnaire was adapted from Sides (2021), and it focused on an individual's preference for learning, which concentrates on motivation to learn, learning orientation, as well as self-concept, as highlighted by Knowles (1984) andragogical assumptions.

The questionnaire was validated by Roessger et al. (2020) and found to be reliable in learning using andragogical assumptions. Furthermore, the OECD (2018) Adult Education and Learning: Barriers to Participation and Efficiency of Adult Education Institutions section was adopted for the questionnaire, as it highlighted the importance of adult education institutions. The researcher included the OECD (2018) Adult Education and Learning: Barriers to Participation and Efficiency of Adult Education institutions to ascertain whether adult learners in Antigua and Barbuda encounter the same types of barriers as in OECD countries. The information from this section of the questionnaire could assist management in dealing with barriers, thereby making the management of the programs more effective. Also, this information could be helpful to the researcher, as the barriers that adult learners encounter in Antigua and Barbuda would be compared to benchmarks, which could lead to the conclusion that Antigua and Barbuda is not unique in the barriers it faces. The results on barriers encountered could be explored in the future if necessary.

The questionnaire used a 5-point Likert scale, which ranges from not at all 1 to a very high extent 5. Demographic data was also collected on the questionnaire. Before administering

the questionnaire to the adult learners, it was perused for errors by facilitators who were involved in adult education for several years, and any errors found were corrected. Further, the instrument was also given to a group of 18 students, 6 from each institution. These students were not selected to complete the questionnaire. Since the instrument consistently produced the same data after piloting with the adult learners and facilitators, it was deemed dependable (Salkind, 2021). Likewise, it was valid for measuring participants' perceptions and experiences of adult education programs (Salkind, 2021).

The participants in the quantitative aspect of the study were adult learners aged 20-40, deemed mature and able to respond meaningfully. The selection criteria for the adult learners were based on interactions with faculty and department heads. Moreover, the selection of adult learners required to complete the questionnaire was conducted using simple random sampling.

Since the instrument consistently produced the same data after piloting with adult learners, it was deemed dependable (Salkind, 2021). Likewise, since the instrument measured what it is supposed to measure Salkind (2021), it was proven to be valid in measuring participants' perceptions and experiences of adult education programs.

The researcher obtained UREC approval and contacted Institution Managers to generate a list of adult learners aged 20-40. Heads of the institution were given a Gatekeeper's letter requesting assistance in generating a list of all adult learners and facilitators who met the criteria. The letter also sought permission for the heads of institutions to provide random copies of six curricula and three students' grade books from each institution, from which the researcher will perform the gradebook. The researcher relied on the heads of institutions to recommend facilitators and adult learners. Participants were contacted via phone and email and called to a meeting where they were provided with a detailed explanation of the study by the researcher. Following this, they were then asked to sign the informed consent form.

Simple random sampling was used to select participants for quantitative research. This involved the creation of a sampling frame of adult learners who are between the ages of 20 – 40 years old, as well as the use of a simple random sampling for selecting the sample. A questionnaire was then issued to the adult learners for completion.

Data for the qualitative aspect of the study were collected using an open-ended semi-structured interview schedule. This was administered to six adult learners, facilitators, three heads of institutions, and three Ministry of Education officials. The interview schedule was adopted from Kirk (2019) research on adult learners' success with modifications made by the researcher to reflect the study's research questions.

The participants for the qualitative research were selected using purposive sampling and open-ended interviews with adult learners, facilitators, heads of institutions, and Ministry of Education Officials. Interview schedules were modified, and test interviews were conducted with facilitators and adult learners to ensure the research instruments' dependability. Additionally, qualitative data were collected from adult learners' records and curricula, was used to analyze the objectives and success levels.

To analyze the data that is collected, a chi-square test will be used to determine the relationships that exist between nominal variables such as age, gender, and the success of adult learners enrolled in adult education programs. The researcher will also use a Variance analysis test to determine the extent to which the adult learners' opinions about the adult education programs differ based on their level of educational attainment. The coefficient of the Correlation test will also be used to ascertain the relationship between the independent variables and the dependent variables.

Furthermore, the Statistical Package for Social Sciences (SPSS) and Microsoft Office software will be used to analyze quantitative data. As such, the chi-square test and coefficient of correlation will be analyzed using SPSS and Microsoft Excel. Moreover, the qualitative data

will be analyzed using thematic analysis, with codes and themes. The gradebook will also be analysed using thematic analysis.

Once all qualitative and quantitative data are collected and analyzed, the data will be triangulated to get different perspectives on the phenomenon under investigation (Mertens et al., 2012) to arrive at conclusions on the management of adult education programs

CHAPTER 4: FINDINGS

4.1 Trustworthiness of data

This study examined how efficiently 3 tertiary institutions in Antigua and Barbuda were managed and whether they met the objective of transitioning students into lifelong learning. Since adult learners philosophically learn differently from children, the theory of andragogy as articulated by Knowles (1984), as well as Cross' (1981) theory about barriers and motivation in adult learning, were examined to ascertain their roles in the management of the adult education programs, if speculation is to be eliminated and documentary evidence on these programs is to be provided. Also, once these adult education programs are efficiently managed, adult learners who attend such institutions could be encouraged to continue learning (Motschilnig et al., 2012). Additionally, completing this research will provide a basis for similar research.

The research facilitated the unearthing of answers to the research questions. Once tested, the hypothesis will yield results that could ascertain if the two variables are related. The quantitative and qualitative phases of the research aided in providing depth to the research with Phase 1 dealing with the collection of the quantitative data and Phase 2 the qualitative data. Quantitative data was collected and analyzed in Phase 1. Additionally, the result from Phase 1 was used to complete the interview schedules, as it served to clarify any anomalies from Phase 1. The data from Phase 1 was used as a factor in selecting the purposive sample of participants for the qualitative data (Creswell and Creswell, 2018). The qualitative phase of the study follows the collection of quantitative data with a case-based approach (Yin, 2018). This case study focused on interviews and gradebook of documents such as curricula and gradebooks. Upon completion of the qualitative phase, the data from both phases were triangulated to arrive at a more detailed understanding of the management of the programs. These will be highlighted in the data presentation.

The research design and questions were organized to address all aspects of the mixed-methods sequential design and research questions. The quantitative phase captured data from the questionnaire, which was adopted and slightly modified. The questionnaire began with an overview of participants' demographic data, including age and gender. This data was analysed using descriptive statistics and presented as charts and graphs. The quantitative data were collected, tabulated, and analysed. To address any gaps in the quantitative data collected, the researcher used purposive sampling to select participants for phase 2 of the mixed-methods design, the qualitative phase. The researcher ensured that the participants who were selected in phase 2 had the requisite knowledge to contribute meaningfully to the research. The quantitative phase sample consists of 150 participants, of which 147 adult learners completed the questionnaire. This translates to 98% of the questionnaires being completed.

All interviews for phase 2 of the research were completed and comprised 18 adult learners, 18 facilitators, three heads of institutions, and two Ministry of Education officials who were selected using purposive sampling. In addition, three-course outlines, three student records, and students' records from the three adult education institutions were examined to determine if there was an andragogical theme in how learners were taught, and how successful they appeared to be in their program of study. Having more than three student records from each institution proved too much for the researcher to analyze, given the short period allocated for data collection and analysis.

The Chi-square test was also used in this research to assess the likelihood that observed relationships occurred due to factors other than chance. Hence, observed and expected frequencies were used in these tests to maintain objectivity (Pandey and Pandey, 2021). This test was used to determine whether there is any relationship between the gender of adult learners and their feelings about motivation to continue learning; the educational level of the participants' parents and their feelings about motivation to continue learning; the barriers

encountered, and adult learners' feelings about motivation to continue learning. The results of the test were used in evaluating the statistical significance which was established at an alpha level of .05. In addition, the researcher assumed that all the expected frequencies of all cells used in the test were five and above.

The research questions provided answers for various aspects of the research. For research questions 1 and 2, analysis was carried out to ascertain the level of motivation among adult learners (Section A, Subsection h) of the questionnaire and the role of learning preferences. Also, the extent to which barriers to enrollment affect learners' motivation was examined. This assisted in determining the relationship between the variables, with the motivation of adult learners as the dependent variable and barriers before and during enrollment as the independent variable. This analysis also provided answers to questions 2 and 3. Furthermore, Section A of the questionnaire instrument collected data, to answer research question 4 and determined if a relationship existed between the level of education of the parents of the learners in Section A, No. 5 and how motivated learners feel about continuing with their learning.

In addition, the extent to which gender plays a role in adult learners' responses to their feelings about their motivation was also analyzed to determine whether any relationship exists. This provided answers to research questions 2 and 4 regarding whether they prevent or motivate adult learners from continuing their studies. After data collection, the researcher analyzed the data, and an overview of the quantitative data was presented in a user-friendly format, as indicated by the charts and graphs presented in this chapter. A similar format was followed when presenting the qualitative data. Further, the analysis of data for each of the phases was organized in keeping with the research questions and hypothesis.

This chapter also focused on the extent to which the data collected; and the methodology used could be relied on by the users of the study (Polit and Beck, 2014). It will

therefore focus on the quantitative and qualitative phases of data collection which was done sequentially to give depth to the data analyses (Creswell and Creswell, 2018). While qualitative data focuses more on credibility, transferability, dependability, and confirmability. Each of these will now be examined.

4.1.1 Credibility

This refers to the extent to which the information gathered from research participants accurately represents the truth (Lincoln and Guba, 1985). Accordingly, Patton (2002, as cited in Moon et al., 2016) emphasizes that researchers should make decisions that align with the research purpose and employ critical thinking to determine an appropriate methodology. The researcher, therefore, ensured the credibility of the results through triangulation, that is, verifying the responses from participants across multiple sources. Also to ensure credibility, the researcher shared the information collected after transcribing data from the interviews with adult learners, facilitators, heads of Institutions, Ministry of Education Officials to confirm its accuracy. Another way the researcher ensured credibility was to obtain all relevant approvals for conducting the research. For this research, due to the ages of the participants, permission was only required from the Heads of the Institutions. Transferability was also ensured and will be discussed in the next section.

4.1.2 Transferability

Lincoln and Guba (1985) describe transferability as the degree to which the findings of the research can be applied to other contexts, thereby adding to theoretical knowledge and informing future research. While quantitative research can be generalized to other contexts, the extent to which qualitative research results can be applied to a wider population with confidence is a matter of debate (Shenton, 2004, as cited in Moon et al., 2016). Moreover, as further pointed out by Shenton (2004, as cited in Moon et al., 2016), since qualitative research typically involves a smaller number of participants, it is often not possible to establish that the

findings can be applied to other situations or populations. However, as postulated by Lincoln and Guba (1985), if transferability is to occur, the details captured in this research must be detailed enough to allow for their application to other situations and contexts. Therefore, in this study, the researcher aimed to highlight any new conceptualizations that may relate to the theory being studied. Furthermore, the researcher sought to employ a Mixed-Methods design, comprising the collection of both quantitative and qualitative data, to enhance the data collected from participants in the adult education programs.

To begin this study, the researcher sought an area within her local context that was under-researched and required investigation to add value to the country. Upon identifying this area of research, the researcher wrote a proposal for the study after undertaking preliminary research on the topic. The proposal was submitted to the Unicaf Doctoral Committee and was approved. Permission was then sought from the UREC Committee and Heads of Institution, who gave approval for the research to be undertaken. No other approval was required in the researcher's local context to undertake the research, as the participants were all between the ages of 20 and 40 years.

Once approvals were obtained, the relevant literature on the topic under research was further reviewed. Moreover, the research method and data collection were determined, which then clarified the research approach and design, the population to be studied, the materials and instrumentation used in the research tools, the data collection and analysis methods, and the findings and conclusions of the research.

The researcher used three tertiary institutions in this research, and from these institutions, the population of adult learners was generated. These adult learners had to be between 20 and 40 years old. From this population, a random sampling method was used to select the sample of adult learners participating in the study. Further, for the interview, the

sample of adult learners, facilitators, Heads of Institutions, and Ministry of Education Officials were selected using purposive sampling.

In relation to the data collection, the researcher issued gatekeeper's letters highlighting the assistance needed to get the list of eligible adult learners and what is required to successfully undertake this process, including the contact information of the participants.

After participants were contacted, Informed consent forms were prepared for all participants, including adult learners, facilitators, heads of institutions, and Ministry of Education Officials, after explaining the research to them. Meetings were then scheduled with participants, with different days earmarked for each class, including adult learners, facilitators, Heads of Institutions, and Ministry of Education Officials. During the scheduled meetings, the research was explained to the participants again, and they were encouraged to ask any questions for clarity. Following this, the informed Consent forms were issued to participants who were asked to sign as proof of their consent. Printed copies of the questionnaire were then distributed to adult learners for completion using a face-to-face modality. The questionnaires were then collected, and the results tabulated. Data from the questionnaires were then used to inform the development of the interview schedule.

Interviews for the adult learners, facilitators, heads of institutions and Ministry of Education Officials were carried out face-to-face and took about four months to complete. In addition, current curricula and gradebooks of some participants were selected and examined for some adult learners. The data obtained from these different sources were then analysed and triangulated.

4.1.3 Dependability

Dependability of research, as highlighted by Guba (1985) deals with the extent to which the results of the research is trustworthy and could be replicated to ensure the dependability of the research, the researcher used three pre-designed to be used to interview adult learners,

facilitators, heads of institutions and Ministry of Education Officials. These schedules were used to guide the interview processes. The interviews were done face-to-face. In keeping with Lincoln and Guba (1985), once the interviews were transcribed, they were verified by the respective participants to ensure accuracy. Furthermore, to ensure that anonymity is maintained throughout this research, participants were not identified by their biological names; instead, letters of the alphabet and numbers were used.

4.1.4 Confirmability

As Guba (1981) asserted, the researcher needed to be mindful of not introducing personal biases into the research. To reduce biases, the researcher ensured that the participants were not influenced by her own personal biases and that she had no daily interactions with them. The researcher also ensured that the data collected from interviews were accurate and precise, as they were subsequently given to the interviewees for their approval of accuracy after transcription. Such information, when gleaned, should be as closely aligned as possible with the objective reality of the phenomenon. Since such information should be as accurate and precise as possible, adhering to these standards during the data collection process is crucial (Stahl and King, 2020). Additionally, triangulation was employed to cross-check the collected data.

Another aspect of confirmability in this study is that the researcher's beliefs should be disclosed but not be biased against the outcome of the research. As suggested by Guba (1981), the researcher did not allow her views on the management of adult education programs to influence what participants reported. As such, the researcher always made a conscious effort not to be judgmental about the outcomes of the qualitative phase, but instead viewed the data collected as helpful information for the research. Additionally, the researcher's primary focus was to report on situations and information as presented.

Likewise, the study's quantitative aspect primarily emphasizes the validity and reliability of the data (Creswell and Creswell, 2018).

Another focus of this chapter will be the presentation of results, highlighting the data collected based on research questions and hypotheses and providing a detailed explanation of the significance of the findings and a summary.

Of critical importance to the study's trustworthiness is that the instruments used to collect data yielded accurate results, thereby benefiting users (Sürücü and Maslakçi, 2020). The researcher avoided using participants' birth names as a measure to protect their identities. The research examined the reliability of the collected data and the extent to which it contributed to the richness of the research (Polit & Beck, 2014). The protocols and procedures established during the study were underscored to accommodate other researchers who may be motivated to use them as a platform for future research (Amankwaa, 2016). The reliability and validity of data will now be discussed.

4.2 Reliability and validity of data

The validity and reliability of research instruments should not be understated. Having instruments that yield accurate results is significant to any research (Creswell, 2014). Validity and reliability are essential to any research as they ensure the instruments used to measure yield accurate results (Knapp & Miller, 2010). Both concepts are discussed below. Additionally, if an instrument is deemed reliable, it will measure the same process repeatedly and consistently, and it will be trustworthy because it highlights precision in measurement (Chakrabarty, 2013).

4.2.1. Reliability of research

Reliability measures the consistency and stability of a research instrument designed to collect specific data (Creswell, 2014). Additionally, the reliability of an instrument is determined by the extent to which measurements are consistent (Salkind, 2021). As further indicated by Salkind (2021), such measurements, when replicated several times with the same

instrument, emphasize the instrument's reliability (Carcary, 2009, as cited in Leung, 2015). In qualitative research, reliability is difficult to determine due to the non-scientific nature of the study (Carcary, 2009, as cited in Leung, 2015). It is a measure of a researcher's consistent approach applied to several different research projects. Hence, testing the same instrument at different times should yield similar results (Rosli et al., 2020).

For this study, the researcher ensured that the questionnaire instrument measured what was to be measured in answering the research questions (Ghauri & Gronhaug, 2005, as cited in Taherdoost, 2016). In addition, the researcher guaranteed that the instrument used could withstand the scrutiny of the study if repeated (Moser & Kalton, 1989, as cited in Taherdoost, 2016). This was done by repeatedly testing the instrument used. The researcher conducted an extensive search to locate an appropriate instrument that had already proven effective. Consequently, the researcher adopted an online questionnaire developed by Sides (2021), which was administered face-to-face. However, since the questionnaire was slightly modified, the researcher deemed the modifications cosmetic and ensured its reliability and validity by piloting the questionnaire with two groups of adult learners (Salkind, 2021) on two different occasions. Also, the researcher applied the Cronbach Alpha test which has been used to determine the validity of instruments that used the Likert Scale with values ranging from 1 to 5. Moreover, the interview schedule was adopted by Kirk (2019) and piloted by the researcher.

Mock interviews were conducted with two groups of three adult learners. The internal validity, external validity, objectivity, and reliability as purported by Lincoln & Guba (1985) are significant to this research. Having instruments that yielded accurate measurements was important to the researcher. As such, the researcher will outline the measures taken to ascertain that the data and, by extension, the research were of good quality.

4.2.2 Validity

As articulated by Oluwatayo (2012), many types of validity exist. Validity is the extent to which a research instrument measures what it was intended to measure and yields accurate results (Creswell, 2014). In addition, Whiston (2012) perceives validity as obtaining appropriate data from a measuring instrument intended for that purpose.

Moreover, validity, as defined by Grier (2015), is the extent to which an instrument measures what it is designed to measure and facilitates accurate interpretation of results. Therefore, Validity in research is of great significance as it is a determinant of the extent to which the results acquired from the study participants represent similar types of individuals who did not participate in the study (Patino & Ferreira, 2018). Internal and external validity are the two categories of validity examined in this research and will be discussed in the next section.

4.2.2.1 Internal validity. This was achieved by the researcher, who ensured that the independent variables were operationally defined and correlated with the dependent variables as part of the internal validity process. Furthermore, to eliminate bias in the selection of participants, the researcher used a simple random sample. By so doing, each participant has the same opportunity to be selected (Suresh, 2011). The researcher also established criteria for selecting eligible participants and ensured that this was clear. Participants selected for the study are comprised of adult learners between 20-40 years of age. Adult learners under 20 years were not selected because they were deemed immature and would not necessarily do justice to the research. Also, the maximum age limit was 40 years, with the average age of adult learners being 27 years. A list of qualifying students was created by each institution and a sample of 50 adult learners was randomly selected from each of the three tertiary institutions. Using Microsoft Excel, the samples were then combined to form 1 sample list. Following the creation of the list, a briefing meeting was held with the selected adult learners on three different days

as arranged to explain the research in-depth and clarify any misunderstandings surrounding the research. To guarantee internal validity, the researcher applied the same treatment to all the participants and ensured a large enough sample size to eliminate or reduce sampling bias. Also, the researcher piloted the questionnaire instruments to discover how participants felt about the instrument.

Regarding the qualitative aspect of the research, the researcher piloted the interview schedule by conducting mock interviews with 6 adult learners who were not part of the study. Following this, the interviewees were asked to verify whether the recording accurately reflected their responses. This added some validity to the interview schedule which was used. In addition, the researcher consulted two interviewees among the adult learners, facilitators, and other participants who took part in the research to ensure that what was documented matched what was stated. This ensured the accuracy of the information gleaned from the participants.

4.2.2.2 External validity. As indicated by Andrade (2018), for a study to accurately represent a population, it should allow generalizations to be drawn from the results. Hence, external validity must exist. Based on the study's scope, the researcher selected a sample from which inferences could be drawn about the population of adult learners at the three learning institutions under investigation (Lesko et al., 2017). While the researcher was more focused on the generalizability of the research findings, it was also hoped that the results would serve the dimension of transportability, as inferences could be drawn about similar adult educational institutions in the Caribbean region (Pearl & Bareinboim, 2014).

The researcher ensured external validity by carefully selecting the samples. The questionnaire was used to collect preliminary data from 147 adult learners aged 20–40, randomly selected to participate in the study. The process was deemed fair, as the researcher obtained the list of all adult learners who met the criteria from all three tertiary institutions to form the sampling frame of 300 adult learners. This list generated a random sample of 150

adult learners using Microsoft Excel. Labels and Identification numbers that identified the respective participants' institutions were then created. Furthermore, once the quantitative samples were collected and the results analyzed, the researcher used purposive sampling to select 18 adult learners for interviews. From the questionnaire analysis, the researcher perceived these persons to possess a great deal of knowledge about adult education programs.

To minimize threats to the study, the researcher implemented protocols to mitigate such risks (Creswell & Plano Clark, 2018). The researcher ensured that Phase 1, the quantitative phase, used a large enough sample size, and the qualitative phase used a smaller sample, as this approach would add validity to the research. This was the case because the qualitative results would complement the quantitative results, as both are triangulated. Also, the same individuals were used for the two phases of the research, with the qualitative phase using a smaller sample size. This ensured that the data was collected from the same sources. Moreover, the researcher used rigorous procedures to ensure the instruments were reliable and valid, testing and retesting them. Previous researchers validated them and adopted them.

The researcher will now present the research findings in the next section.

4.3 Results

Several research tools were used to collect both quantitative and qualitative data. A questionnaire was used in the quantitative phase to collect data from adult learners. In contrast, an interview schedule was used to collect data from adult learners, facilitators, heads of institutions, and Ministry of Education officials. A review of the grades and curricula was also undertaken. Further, after collecting the data from both phases of the research, the results were then triangulated. According to Heale & Forbes (2013), when data are collected from two sources, different weightings for each source may apply, leaving the researcher to exercise caution when presenting results from the quantitative and qualitative phases (Heale & Forbes, 2013). If the results of this study converge, validity will be added to the research.

Alternatively, if the results diverge, the study's validity could be questioned (Heale & Forbes, 2013).

Adult education programs in Antigua and Barbuda appear to generate greater interest among the female population aged 20-25. Adult learners aged 20-25 dominated the programs, as selected age groups for the study. This is based on the demographic data shown in Figure 2. Further data collected from UNESCO, published on Global Economy.com, revealed that, on average, the female-to-male enrollment ratio in tertiary institutions was 1.56 in 2012. In addition, the programs' management was closely examined from the perspectives of the curricula, adult learners, facilitators, managers, and Ministry of Education Officials to gain their views on the management and effectiveness of these programs. As highlighted by Research Question 1, the feelings of adult learners about how the adult education programs are managed are given. The extent to which adult learners are motivated to transition and continue their learning will also be presented.

This study also captured the feelings of adult learners, facilitators, Managers of adult Education Institutions, and Ministry of Education Officials regarding all aspects of program management. If adult education programs are well-structured and meet the needs of adult learners in terms of curriculum, delivery, and overall impact, they should motivate adult learners to continue learning. In this regard, the results of research question 2, addressed the views of motivation of the adult learners, and this perspective was given as gleaned from the responses given by adult learners, facilitators, Managers of Institutions, and Ministry of Education Officials. The level of motivation of these adult learners involved in the programs is highlighted in the results. Furthermore, the results for research question 3 revealed the barriers confronting these adult learners, with the most prevalent barriers highlighted. The views of the adult learners and facilitators on their feelings about motivation are also presented. Moreover, research question 4 relates to the social origin of adult learners. This specifically

addressed the highest educational level attained by the adult learners' parents, and the results will also be presented.

The results of hypothesis testing were based on the association between gender, the highest level of education attained by parents of adult learners, barriers encountered, and the views of motivation attained by adult learners. The testing was done using the Chi-square test of Independence. The following section presents the demographic data collected from participants, followed by the results of the Chi-square test of independence, data from the interviews, and gradebook and curricula.

The findings of this research will be reported, and the results gleaned from each tool will be triangulated in the next section.

4.3.1 Demographic data on participants

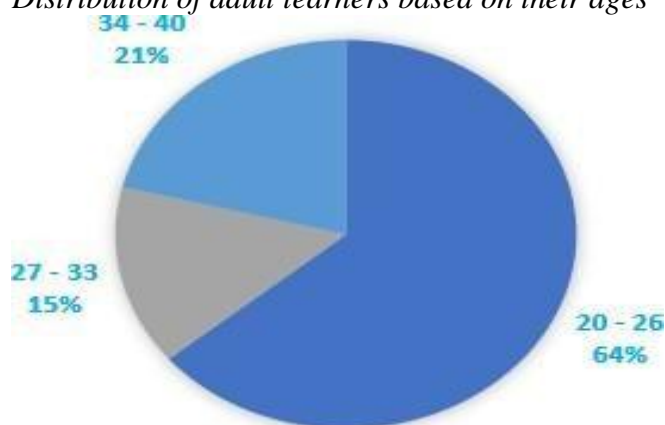
This research targeted adult learners aged 20 to 40 from 3 tertiary institutions in Antigua and Barbuda. For phase 1 of the sequential explanatory mixed-methods research, 150 questionnaires were distributed; however, 3 participants did not complete the questionnaire due to absenteeism. All these participants were from the same institution. Therefore, a total of 147 questionnaires were completed. Phase 2 of the research involved collecting qualitative data, including interview schedules, sample reports, and curricula plans, from 6 adult learners at each of the three adult learning institutions.

For Phase 1, a questionnaire adopted from Sides (2021) was used (see Appendix F). The questionnaire used consisted of four sections: A, B, C, and D. Section A focused on the Demographic information of adult learners; Section B, the learning Preferences of adult learners; Section C, barriers selected by an adult learner; and Section D, the efficiency of the management of the programs. Since the research focuses on the efficiency of managing adult education programs, the researcher felt the need to provide an overview of data on the adult learners most affected by the programs before delving into the analysis.

In Section A, demographic data on participants' gender were collected. Among the data were participants' ages, divided into three categories: 20-26, 27-33, and 34-40. Figure 2 illustrates the distribution of the respondents' ages. As shown in Figure 2, the largest enrolment of adult learners was among those aged 20-26 years. Further, the second-largest number of adult learners enrolled in the programs was in the 34-40 years age category, followed by the smallest enrolment category, 27-33 years.

Figure 2

Distribution of adult learners based on their ages

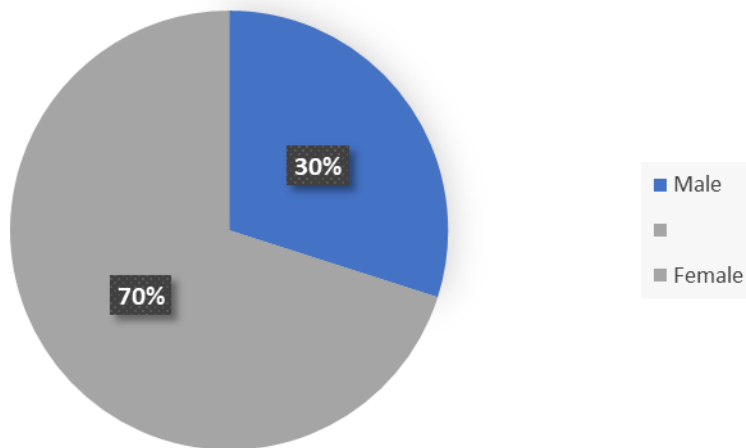


Note: The image was generated from data collected in the adult learning questionnaire

Additionally, Figure 3 shows the respondents' ages by gender. As indicated by Figure 3, one hundred forty-seven questionnaires were completed, from a total of 150 issued questionnaires. Of this number, the largest group of participants was female, followed by males. This is indicative of the trend where more females enrol in adult education programs in Antigua and Barbuda, as well as the population data of 1.56. That is, for every male, there are 1.56 females (Global Economy.com).

Figure 3

Distribution of adult learners by gender



Note: the data was collected from a questionnaire conducted on adult learners

Further, the data in Figure 4 below also revealed that 103 female adult learners and 44 males took part in the questionnaire. Most of the female participants enrolled were from the age category 20-26, while the second largest category of females enrolled was from the age category 34 – 40 years. The age category 27-33 had the least number of participants. The number of male participants took the same trend as indicated by the female gender in that the largest number of males who participated were from the age's category 20-26, followed by the age category 27-33. Unlike the female gender, the age category of 34-40 years had the least male participants.

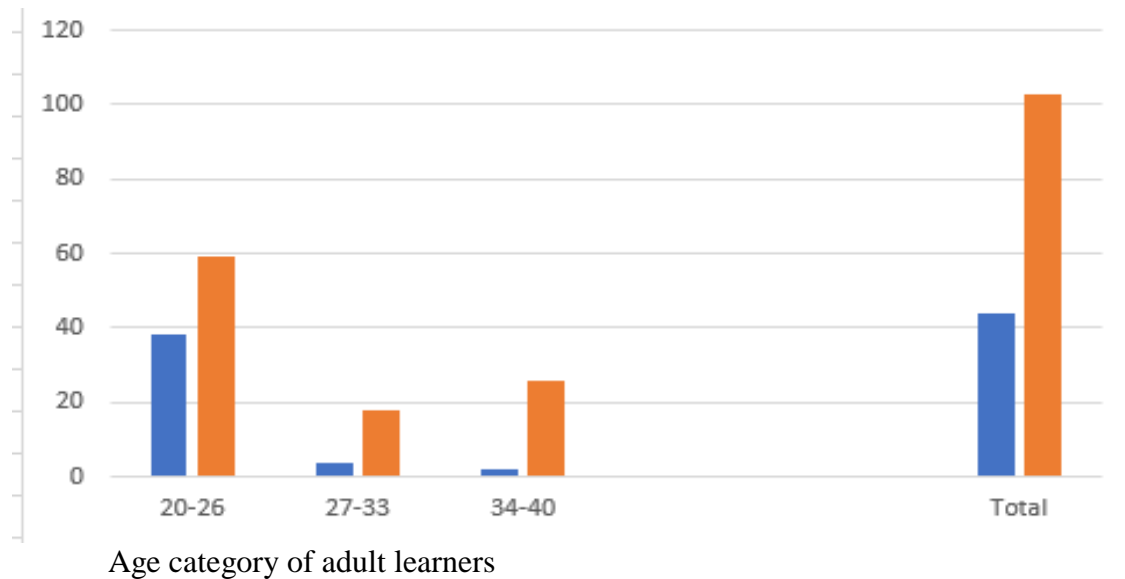
Figure 4*Distribution of adult learners by age and gender*

Table 8 indicates that the mean age of the participants in this study is 27 years, with a standard deviation of 11.91. These were calculated using Microsoft Excel.

Table 8*The Average Age of the Participants*

Age Range	Freq (F)	Midpoint(M)	M* N	(M-U)	(M-U) ²	N(M-U) ²
20-26	94	23	2162	-4	16	1504
27-33	22	30	660	3	9	198
34-40	31	37	1147	-7	49	49
Total	147		3169/147			1751/147
			M=27yrs			SD=11.91

Participants' Demographic data for the qualitative phase of data collection, gleaned from interviews, is shown in Table 9 below. Purposive sampling was used to select participants. The age categories of the adult learners selected for the interview were the same as those of the respondents who completed the questionnaire: 20-26, 27-33, and 34-40. As for the quantitative aspect of the research, more female adult learners participated than male adult learners. For the interview with the adult learners, the researcher asked similar questions to those on the questionnaire and also explored in more depth their motivation to continue learning and the barriers they encountered before and after their learning experience. Their experience during the learning process could undoubtedly hinge on the efficiency with which they manage the programs in which they are enrolled and could determine their motivation to continue learning (Woolfolk, 2019). Moreover, as postulated by Galbraith (2014), efficiency in adult education institutions, like any other institution, could be measured by whether the institution meets its objectives. The demographic data for adult learners is shown in Table 9.

Table 9*Demographics on adult learners interviewed*

Respondent	Gender	Age	Highest Educ.	Noof yearsoutof
			Level attained	School
RES1	F	20-26	secschool	6-10
RES2	M	20-26	college	1-5
RES3	F	34-40	secschool	over16
RES4	M	20-26	college	6-10
RES5	F	20-26	secschool	1.5
RES6	M	27-33	secschool	1-5
RES7	F	27-33	secschool	1-5
RES8	F	20-26	secschool	1-5
RES9	F	27-33	secschool	over16
RES10	M	20-26	secschool	1-5
RES11	F	20-26	secschool	1-5
RES12	M	20=26	secschool	1-5
RES13	F	34=40	secschool	over16
RES14	M	20-26	secschool	11-15
RES15	F	27-33	secschool	1-5
RES16	M	20=26	secschool	1-5
RES17	M	27-33	secschool	1-5
RES18	F	20-26	secschool	11-15

Additionally, a purposive sample comprising six facilitators from each of the three tertiary institutions was also selected for interview giving a total of 18. This sample comprised 8 males, representing 44.4%, and 10 females, representing 55.6%. The data revealed that more females participated in the qualitative phase of the research than males. Moreover, to get the perspective of the management of the adult education institutions, three heads of institutions who are all females were also interviewed. These heads of institutions are of the same age

category, above 40 and have the same number of years of service between 1-5. Finally, to gain a comprehensive understanding of how the overarching agency responsible for education perceives the management of adult education programs, two Ministry of Education Officials were interviewed, one being the Assistant Director of Curriculum. Likewise, the demographics of the two Ministry of Education officials are also similar. The respondents also have master's degrees as their highest academic achievement.

Having reviewed the participant demographics, the results for research question 1 are presented below.

4.3.2 Research Question 1

How equipped are the adult education programs in Antigua to transition learners into lifelong learning?

In examining the adult education programs, the researcher focused on how they are structured and whether their structures motivated learners to continue learning. In seeking answers to this question, the researcher used a questionnaire as shown in Appendix F, in particular sections B and D. The questionnaire was adopted from Sides (2021) and since minor adjustments were made, it was given to a group of 3 experts who are in the field of adult education to verify the validity of its content and piloted amongst six adult learners. Furthermore, a Cronbach's Alpha reliability test was used in Section B, which addressed learning preferences, and in Section D, which sought the perspective of adult learners on how the programs are managed. Cronbach's alpha was .831, as shown in Table 10. This suggests a very high level of reliability among the 14 data items used in Sections B and D of the questionnaire.

Table 10*Reliability Statistics for Cronbach Alpha result*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.831	.833	14

4.3.2.1 Evidence of andragogy For this research question, the two components examined were the efficiency of the programs organized by management and their influence on motivating learners to continue learning. As such, the researcher examined what adult learners had to say about their learning preferences. The adult learners' responses to learning preferences are in Table 11 a) to i). From the data in Table 11, Item a, 63 adult learners (43%) relate new ideas to real-life situations, while 27 learners (18%) do so to a very great extent.

Moreover, the data in Table 11, item b), indicate how adult learners carry out their learning when engaged in the process. The data revealed that 26 participants representing 18% incorporated prior experiences to the learning experience to a very high extent, 37 participants representing 26% to a high extent, 54 participants to some extent, and 22 participants representing 15% to a small extent. Based on the data, 97% of respondents believe that prior learning experiences, as indicated by Knowles' (1980) assumptions, were incorporated into the learning environment; however, this was not evident to a very high extent.

Additionally, to ascertain how adult learners feel about learning new things, data in Table 11, item c), revealed that 83 participants, representing 56% of adult learners, enjoyed learning new things to a great extent. In comparison, 47 participants, representing 32%, enjoyed learning new things to some extent, and 16 liked this to a small extent. Overall, 99% of adult

learners like learning new things, but none like doing so to a very high extent. Added to this from the data in Table 11 Item d), most adult learners seek clarity on matters that they do not understand, with 54 adult learners representing 37% doing this to a very high extent, 56 learners representing 38% to a high extent, 25 adult learners representing 17% to some extent, and 9 participants representing 6%. The data revealed that 98% of adult learners seeking clarity look for additional information if they do not understand something.

To get an idea of how adult learners deal with acquiring new knowledge, the data in Table 11 Item e), revealed that 49 participants representing 34% relate what they learn to what they already know to a very high extent. Likewise, 56 adult learners representing 38% feel to a high extent that they relate new things to their past experiences. Additionally, 30 adult learners (21%) relate new things to what they already know to some extent, and 9 adult learners (6%) do so to a small extent. 99% of adult learners relate new knowledge to their past experiences, but only 34% do so to a very high extent. Also, the data from Table 11, Item f), sought to determine how adult learners acquire new knowledge. As such, 45 adult learners representing 31% like to figure things out and fit ideas together to a large extent. Coupled with this, item g) highlights the adult learners' responses about how enthusiastic they feel about the learning process. Only 20% of learners felt enthusiastic to a very high extent. In determining how motivated adult learners were about their learning, the data in Table 11 (Item h) indicated that 69 adult learners (47%) felt highly motivated to continue learning, and 71 adult learners (49%) felt motivated to continue learning. Furthermore, 13 adult learners (9%) were motivated to continue learning to a very small extent, 22 (15%) to some extent, and 25% to a high extent. Overall, 96% of adult learners felt motivated to continue their learning. Furthermore, the data in Table 11, Item i), revealed that discussions and shared experiences are used throughout the teaching and learning process. As such, 39 participants, or 27% of the participants agree that these are used to a very high extent, 52 participants representing 36% share this view to a high

extent, 43 participants which accounts for 30% of the respondents believe that this is done to some extent and 7 participants representing 5% feel that this is done to a very small extent. While 97% of adult learners indicated that discussions and shared experiences represent their experience during the teaching and learning process, many believe this is done to a high extent, rather than to a very high extent.

Table 11*Responses of Adult Learners about their Learning Preferences*

Statements/Questions	Not at All	Very Little Extent	To some extent	To a high extent	To a very high extent	No response	Total no of responses
a) When I learn about new ideas, I try to relate them to real-life situations to which they might apply.	6	13	63	38	27	1	146
b) The instructor incorporates my prior experiences into the learning environment	5	22	54	37	26	2	143
c) I like learning new things	1	16	47	83	0	0	147
d) If I don't understand something. I look for additional information to make it clear.	2	9	25	56	54	0	147
e) When I encounter something new, I try to relate it to what I already know.	2	9	30	56	49	1	146
f) I like to figure out how different ideas fit together	4	16	44	37	45	1	146
g) I feel enthusiastic about how my courses are delivered.	8	18	51	40	30	0	147
h) I am motivated to continue learning.	6	13	22	36	69	1	146
i) Adult education programs utilized discussions and shared experiences throughout the teaching and learning process.	4	7	43	52	39	2	145

4.3.2.2 Efficiency of Management. Also, the activities planned by the program manager are important to the efficiency of the adult programs (Poudel et al., 2020). As such, the data collected in Table 12 below focused on the efficiency of management. The data collected from Table 12, Item a), indicated that 19 participants, which represents 13% of the respondents, are of the view that to a very high extent, the adult education programs are being properly managed, 38 participants representing 26% are of this view to a high extent, 67 participants representing 46% to some extent and 21 participants representing 14% articulated that the adult education programs are being properly managed to a very small extent. Hence, the majority of adult learners, representing 46% felt that the programs are properly managed to some extent

In response to Item b), as to whether the curricula need to be restructured, 17 participants representing 12% of adult learners believe that the programs need to be restructured to a very high extent, 43 participants representing 29% to a high extent, 58 participants representing 39% to some extent and 23 participants representing 16% believe that the mode delivery and curricula need to be restructured. Additionally, the data in Table 12 Item c) revealed that 43 participants representing 31% believe that the managers should pay closer attention to the structure of the programs to a very high extent, 50 participants representing 36% to a high extent, 34 participants representing 25% believe that this is necessary to some extent, 8 participants representing 6% to a very small extent and 3 participants representing 2.2% are of the view that the management need not pay closer attention to the subjects that form part of the course offerings. Based on this data, 98% of the adult learners believe that management needs to pay closer attention to how the courses are structured.

Furthermore, the data in Table 12, Item d), which focused on the extent to which learners need to be engaged more often by management about their learning needs, revealed that 53 adult learners, representing 36%, think that this needs to be done to a very high extent,

55 adult learners representing 38% of the adult learners believe that this should be done to a high extent. Also, 26 participants, representing 18%, think this needs to be done to some extent, whereas 6 participants, representing 4%, believe this needs to be done to a very small extent. Furthermore, six participants, representing 4%, do not think this should be done. Moreover, as indicated by the data from Item e), 32% of adult learners believe this to some extent, while 29% believe it to a very high extent.

Table 12*Adult responses about the efficiency of programs*

Statements/Questions	Not at all	Very Small extent	To some extent	To a high extent	To a very high extent	No response	Total no of responses
a) To what extent do you believe that adult education programs are being properly managed?	2	21	67	38	19	0	147
b) To what extent do you believe that the curricula and mode of delivery of adult education programs need to be restructured?	6	23	58	43	17	0	147
c) To what extent do you believe that managers need to pay closer attention to how the subjects the course of study are structured?	3	8	34	50	43	9	138
d) To what extent do you believe that management needs to engage adult learners more often to investigate their learning needs?	6	6	26	55	53	1	146
e) To what extent do the subjects which form part of the course of study adequately facilitate adult learners to continue their studies?	2	12	46	43	42	2	145

To further probe into Research Questions 1, 18 adult learners were interviewed and asked to elaborate on their experiences while enrolled in the programs; 18 facilitators were also

interviewed and asked about their teaching strategies used, and adequacy of the adult education programs and if they see need for improvement; 3 Managers of Institutions were asked if they see room for improvement in the programs; and 2 Ministry of education officials were asked to elaborate on how the programs are being managed.

Table 13 below refers to the interview conducted with adult learners.

Table 13*Summary of interviews with adult learners*

Interview question	Codes	Themes	No of Respondents
1) How was your experience of returning to education?	Good, Challenging, Tiring, Interesting Difficult	Enthusiastic,	5
		not so welcoming,	12
		Tiring	1
2) How do you feel about how the adult education programs are managed and executed	Well managed. Stressful Disorganized Poor course delivery	Well managed,	8
		Not well managed,	8
		Not sure	2
3) What do you hope to achieve by participating in these educational programs?	Improved qualification, improved skills Better jobs, increased pay, Furthering of education	Improved Standard of living.	16
		A way to further education	2
4) Do you have plans for furthering your education	No interest Financial Constraints Family Obligations Disinterest	No consideration was given.	2
		Interested, but faced with financial constraints.	8
		No desire to continue	8
		Lack of organizational skills.	1
5) What obstacles to enrollment have you encountered before and during enrollment in adult education programs?	No finance No time Unable to balance work, family, and studies. Dislike school	Lack of time	1
		Lack of management. Family constraints.	1
		Economic constraints.	7
		Dislike school.	7
		Fear of enrolling.	1
6) Briefly describe your learning experiences in the programs you enrolled in.	Grueling, Coping, Good, Challenging, Exciting	They are enjoyable.	8
		They are exciting.	1
		They are difficult	6
		They are manageable	3

Adult learners were first asked **by the researcher, “How was their experience of returning to education?”** In response to this question, the themes of much enthusiasm, not-so-welcoming, and tiring emerged as shown in Table 13. However, only five adult learners expressed enthusiasm, using expressions such as 'my experience was very good,' 'exciting,' or 'pretty good.' One of the adult learners even stated, “I am excited; I have been waiting for a long time to start the program; I attempted to do this sometime before, but I just could not do it....I had too many things hanging over my head and just too much to do, but I am so happy to be finally here. The programs are nice so far.” In addition, 12 adult learners, representing 67% of the total, described the programs as not so welcoming. Of the 12 adult learners, one commented, “I thought that the programs would be easier, but it is too much. I feel like taking a break,” while another stated, “I thought studying again would be easier, it is tough on me.... I am too old for this.” When probed by the researcher, three of the other adult learners had similar themes, lumped under the theme of the programs not being too welcoming. They claimed the facilitators seemed to forget that they were not young and just out of school. One of these learners expressed, “These programs are not for people like me; too much information is being thrown at me...I need a break.” Another learner, representing 5% of the total number of adult learners interviewed, felt that the programs were tiring and posited, “I made a mistake coming back to study, these programs are very tiring.... just tiring.” When the researcher inquired why she found them to be tiring, she responded by saying “They are a lot to deal with for a working individual.... every week you have to work, attend classes and still complete assignments.... too many assignments to complete.” They claimed that the programs could be improved upon, challenging, and difficult. Based on the responses, most of the adult learners interviewed believed that the adult education programs are not meeting their needs. Only a few of the learners interviewed felt that their return to school was a good experience.

Moreover, to ascertain whether adult education programs are effective in

transitioning learners to lifelong learners, the researcher asked the following question: **How do you feel about how adult education programs are managed and executed?** When the researcher probed into the management and execution of the programs, themes such as 'are the programs well-managed, not well-managed, or okay?' emerged. Of the 18 adult learners interviewed, eight felt that the programs were well managed overall. One of these participants stated, "The programs are good, the facilitators ensure that we understand our work, and I am doing well; they assist me in understanding any misunderstandings." Another participant stated, "I am happy for the opportunity to be here; I never thought that I would get so far.... The program that I have enrolled in is a blessing. I love how it is managed. In addition, another of these adult learners expressed. "I think the programs are well managed, but more could be done to help those learners who might be struggling." When the same question was asked of another adult learner, she posited, "Overall, I think that the programs are well managed, but some facilitators are too impatient with us. Also, of the four adult learners left one stated, "I have always wanted the opportunity to study again, but I just could not do it for several reasons...I am happy for the opportunity." When asked by the researcher if he wished to elaborate a bit, he declined to do so. He stated, "Perhaps another time." Another of the four adult learners described their experience as being a happy one and stated, "I am enjoying the programs. Moreover, **when asked about the learning experience since enrollment in the programs**, another highlighted theme was that the programs are exciting. This was the view of one adult learner who stated, "I do not know if things would get worse, but for now, I am enjoying the programs, I find them to be exciting.... I hope that things remain this way."

In contradiction, eight adult learners underscored the theme that the programs are not adequately managed. In response to the programs not being well managed, one respondent stated, "...Some courses need to be reorganized; I do not think that the way they are delivered is suitable for adults like me who were out of school for a while." Two additional adult learners

claimed, “The courses are generally not properly managed... they are poorly delivered, and the facilitators are not handling things properly.” When the researcher probed further and asked each of the two adult learners what they would like to see change, one learner claimed, “he gives too many notes and sometimes, I am not able to keep up with this; he just needs to do better with his notes.” The other five adult learners expressed similar displeasure. They felt that most adult education programs need to be overhauled. Additionally, when asked to elaborate further on the programs and their management and execution, two of these learners described the programs at one of the adult education institutions as disorganized and stressful. One of these adult learners claimed, “The programs are just not organized; it is very frustrating for me.... It is demotivating for me.” Two of the Adult learners claimed they are unsure how they feel about the programs at this point. One learner iterated, “Maybe I will have an opinion later on, but for now, I would rather not say.” The other adult learner preferred not to comment.

Additionally, the research sought the facilitators' perspective on the courses being offered. The question posed to the facilitators was **“In your opinion, are the courses being offered by your institution adequate in meeting the needs of the adult learners who enroll in these programs?”** The main themes emerging from this question, as shown in Table 14, are adequate courses and outlines/content, and inadequate course outlines. Eleven of the eighteen facilitators interviewed (61% of respondents) believe the courses are adequate. However, this partially contradicts what one facilitator, F5 stated. He claimed that “some of the courses are adequate, while others are not.” When the researcher probed deeper to understand the courses that are inadequate and why they appear that way, F5 stated, “Some courses need more hands-on components embedded in them ...in my opinion, they are a bit boring.” Moreover, one of the facilitators, F1, believes that the courses are not entirely student-friendly. “He stated, I try to deliver them using more discussions and real-life situations, but I think that some content can use updating and rearranging.” While five facilitators felt the courses were inadequate and

cited a lack of hands-on components and more student-friendly course outlines, the responses indicate that many course outlines are adequate. However, a few need reorganizations to include more hands-on or practical components.

Table 14*Summary of interviews with facilitators*

Questions	Codes	Themes	No. of responses.
1) Based on your years of experience, what motivated adult learners?	Money Salary	Personal development, financial betterment, and	7
	Missed opportunities.		9
	Career change.	The Efficiency of Programs	1
	Increased Knowledge Efficiency of programs		Missed opportunities (betterment of self).
b) In your opinion, what is the expectation of adult learners	Good teachers	Professionalism improved education.	2
	Good programs/good-flowing programs,	Effective learning environment	
	Understanding of concepts, Meaningful learning, and execution of tasks.		Cater to needs.
		Enhanced financial status	8
Qs. 2 What teaching method or strategy do you use with your adult learners?	Practical Theory	andragogy/Experiential	17
	Direct approach Hands-on	Regular lectures	1
	Real-world examples, Regular lectures		
Qs.3 Are the courses offered by your institution adequate to meet the needs of the adult learners who enroll in these programs	Not student-oriented. Needs Improvement: Change in delivery, Courses adequate	Adequate courses and outline/content	11
		Inadequate courses and course outlines.	6
		Inadequate Course Delivery	1
		Gap in Education, Time Management	3
Qs 4 a) What are the most significant barriers to learning that students encounter before and after enrollment in adult education programs?	Forgetting primary and secondary life.	Financial responsibilities,	5
	Lack of basic numeracy and literacy skills.	Lack of requisite knowledge	6
	Insufficient knowledge.	Inadequate course management.	3
	Lack of content.		1
4 b) do you assist them in dealing with any barriers encountered	Time management.	Offer guidance and assistance.	18
	Academic Writing		
	Counselling		
	Motivate Encouragement		

To determine there were any hindrances encountered to deter adult learners from continuing with their learning, the researcher further inquired about their motivation to continue with their studies.

The researcher interviewed three heads of institutions and two Ministry of Education officials. This should provide insight into Research questions 1, 2, and 3. Table 15 below presents the questions asked by the researcher and the codes and themes derived from the responses of the heads of institutions. The researcher inquired of the Heads of Institutions how they would describe the contribution of adult education programs to any country. This was to determine their general feelings and comfort levels in managing the adult education programs. Several themes emerged from the interviews held with Heads of institutions, as indicated in Table 15. Among these themes are contributions to national development, contributions to educational development, and better-equipped individuals. Two heads of department, HOI 1 and HOI 2, were of the view that adult learning programs contribute to national development. At the same time, HOI 3 cited “these programs contribute to educational development and these programs will better equip adult learners to be productive citizens.” In an attempt to determine whether the HOIs are excited about their roles as heads of institutions, the researcher asked, “Have you always wanted to become a Head of Institution?” In response, HOI 1 and HOI 3 claimed that they had always wanted to be Head of Institutions, as their objective was to contribute to education. The next HOI, HOI 2, stated, “At first, I had no interest in heading an institution, but now I am of a different mindset. I enjoy what I do.” **The researcher asked each HOI whether there were aspects of their programs they thought needed improvement.** In response, two HOIs suggested that the curriculum needs adjustment. HOI 1 believes the curriculum needs to be broadened. When asked to elaborate, she stated, “The curriculum needs to be broadened to include more information technology because that will help students a great deal in the 21st century.” The other HOI 3 claims that a more student-

centered curriculum needs to be implemented at her institution. She claims, “This will contribute positively to the success rate of the students.” Further, the HOIs were given several areas that could be improved upon and asked if there were any improvements that could be made in any of the areas. When interviewed, all HOI responded that the course offerings by their institutions need to be adjusted. However, two of the HOIs, 1 and 3, also suggested that the infrastructure at the institution needs to be examined.

Table 15*Summary of Interviews with Heads of Institutions*

Question	Codes	Themes	No. of Respondents
Qs. 4 How do you describe the contribution of adult education programs to any country?	Equip adults Personal development National development Higher level of output	Contribution to National Development	2
		Contribute to educational development and better equip individuals	1
Qs. 5 Have you always wanted to become a member of the management of adult education programs	To contribute to education.	Contributing to education	2
	No interest in the management of the programs.	No interest	1
Qs. 6 Are there any aspects of your program that could be improved? If so, explain.	Offering more learning opportunities.	Broadening of the curriculum.	1
	Some courses need to be more student-friendly.	A more student-centered curriculum'	1
	Inclusion of technology.	Inclusion of technology in the curriculum.	1
Qs. 7 Are there improvements that could be made in any of the following areas to improve the programs?	Relevance and content of programs, training, and facilities.	Improved program offerings, training, and facilities.	2
	Inadequacy of curricula. The need for more student-friendly curricula	Review course offerings and make relevant changes.	1
Qs. 8 What is the most significant barrier to enrollment that you have observed in your years of service?	Finance	Lack of finance	2
	Time management	Inability to balance activities for home, work, and studies.	1
b) In your opinion, what factor(s) contribute to this barrier?	Little or no income. Lack of planning.	Insufficient funds.	1
	Economic hardship.	Inadequate planning	1
	Guidance.	Lack of guidance	1
c) What measures are put in place to deal with such barriers?	Scholarships and payment plans.	Money management, guidance, and planning.	1
	Lack of planning in alternative education worldwide.	Creation of avenues for financial assistance.	1
		Enter different arrangements with other universities.	1

In addition, an interview with two Ministry of Education officials provided insight into how they perceive the management of the programs, whether any challenges confront their managers, and the advantages gained from managing these programs. The researcher also sought to determine whether Ministry officials perceived the management of these programs to be different from that observed in other Caribbean Territories or further afield. Hence, the interview should address research questions 1, 2, 3, and 4. The interview response is shown in Table 16 below.

The interview with the Ministry of Education officials (MOE) revealed the following. The researcher asked the MOE how they perceived the management of the adult education programs in Antigua and Barbuda. In response, both MOEs believe that adult education programs are well-structured and organized. According to MOE 2, “They are structured for adult learners, and they work towards the adult learner achieving his or her goal.” Additionally, another Ministry of Education official. MOE 1 described the programs as “well-organized programs for students who are academically inclined in the formal sector.” Moreover, the researcher wanted to ascertain if the MOEs were aware of any challenges faced by adult learners and, therefore, inquired of the officials about the advantages faced by the adult learners enrolled in the programs. Both officials agreed that the maturity of the adult learners was the most significant asset. According to one MOE 1, “The students are more mature, and therefore, dealing with them could prove to be a little better than the younger adults.

Table 16*Summary of Interviews with Education Officials*

Questions	Codes	Themes	No. of Responses
Qs. 4 How do you perceive the management of adult education programs in Antigua and Barbuda?	Towards adult learners	Well-structured programs	1
	Organized programs, structured programs	Well-organized programs geared toward adult learners	
Qs.5 What advantages do you perceive are faced by the management of adult education programs in Antigua and Barbuda?	Dealing with adults	Maturity of students	2
	More mature in learning		
	Time management		
b) What challenges do you perceive are faced by the management of adult education programs in Antigua and Barbuda	Need preparation in how to adequately complete work.	Need support in time management.	2
	Commitment and Preparation	Competing life activities. Lack of preparation for Completion of tasks	

In addition to issuing and completing the questionnaire and interviewing adult learners, facilitators, and heads of institutions and Ministry of Education Officials, the researcher also completed document review on three curricula and gradebooks from each institution. Details of the document review are given in Table 17. The content analysis entailed reviewing grade books and curricula. For the content analysis of curricula, the curricula were examined to determine if the andragogical assumptions were used in teaching adult learners. The presence of any assumptions was recorded on the form above in Table 17 based on its prevalence. Prior to examining the curricula and gradebook, the researcher used the andragogical principles and

created five themes a) to e). The themes were used in conjunction with a 5-point Likert scale, which ranged from 1) Strongly Disagree, 2) Disagree, 3) Neutral, 4) Agree, and 5) Strongly Agree. The common themes in the statements were the motivation of adult learners, student-centered learning, and equipping of adult learners for life. The presence of these elements would provide answers to Research Questions 1 and 2.

As indicated by items a) to e) of the curricula, as shown in Table 17, there appears to be a lack of evidence to suggest that the curricula generally utilized PowerPoint presentations and, to a small extent, discussions. Furthermore, although the curricula do not display signs of student-centeredness, some lessons used real-life scenarios in their PowerPoint presentations. This could motivate adult learners, as highlighted by 56% of the analyzed documents, and would be in keeping with Knowles' (1984) andragogical assumptions. Additionally, 78% of the curricula did not indicate that adults play a pivotal role in their learning. The use of PowerPoint presentations and note-taking was evident to a large extent.

Although the curricula showed some components of andragogy, such as student-centered lessons with discussions and real-life scenarios, there were insufficient signs of practical, student-centered approaches to teaching and learning, as evidenced by Knowles's (1984) andragogical assumptions. Additionally, the researcher found no evidence to suggest that the curricula are being used to equip adult learners for life. Most importantly, most curricula appear to need review to align with the needs of 21st-century work skills.

Furthermore, as seen in the grade book assessments in Table 17, items a) to e), only approximately 56% of the adult learners appear not to have mastered what they are taught. The grade book generally shows signs of interest in the courses being taught. At the same time, many adult learners attended their classes.

Table 17*Summary of Document Review Curricula and Gradebooks*

Statements	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
The Curricula					
a) The curricula suggest that the adult learners 'experiences are considered	0	4	2	3	0
b) The activities in the curriculum suggest that adults play a significant role in their learning	0	7	2	0	0
c) There are elements in the curricula that motivate adult learners to continue with their learning	0		3	5	0
d) The curricula entail subjects that would equip adult learners for life	0	2	2	5	0
e)The subjects that form part of the curriculum are exciting and motivating.	0	3	4	2	0
The Gradebook					
a) Learners appear to master what they are taught.	0	5	0	4	0
b) Learners appear to be motivated by what they are taught	0	3	2	4	0
c)Learners' interest in the courses is generally lacking	0	5	3	1	0
d) Some learners seldom attend classes	0	5	1	3	0
e) <u>Most learners attend their classes regularly.</u>	0	0	2	7	0

In conclusion, research question 1 focused on the management of adult education programs. Attention was drawn to the efficiency of the adult education programs in line with the andragogical assumptions of Knowles (1984), the theoretical framework used in this study. Most adult learners reported that they learn best by relating new ideas to real-life experiences. Also, most adult learners reported that prior learning experiences were incorporated into their lessons, and they liked learning new things. Most learners also reported seeking clarification on any aspect of their lessons they did not understand by seeking additional information. Additionally, the data collected on the efficiency of the programs revealed that 13% of adult learners believe that adult education programs are being properly managed to a high extent. A larger percentage (46%) believe this is so to a very high extent, while a smaller percentage of learners believe that the programs are being properly managed to a small extent. Compared with the interviews with adult learners, 44% of them feel that the programs are properly managed. This figure represents less than 50% of the adult learners interviewed.

Although most adult learners believe that adult education programs are properly managed, many believe this only to some extent. Additionally, a large percentage of adult learners opined that the curricula need to be restructured. Similarly, a large majority of adult learners believe that the management of adult education programs should pay closer attention to how programs are structured. Further, most adult learners do not believe that the courses that form part of their studies adequately facilitate their continued learning. This is consistent with the data collected from the Heads of Institutions representing (67%) who share the view that the curricula need to be reviewed. The data collected revealed that, from the interviewed facilitators' standpoint, the majority (61%) view the courses as adequate, which also supports the Heads of Institution.

Regarding the management of adult education programs, data revealed that the majority of adult learners believe that management should regularly seek their perspectives on how

programs are managed. Also, the data collected from the Ministry of Education Officials agree that the programs are well structured and organized.

From examination of the curricula, as indicated by items a) to e) in Table 17, there appears to be insufficient evidence to suggest that the curricula generally utilized PowerPoint presentations and, to a small extent, discussions. Furthermore, the content analysis of the gradebooks revealed that 44% of the curricula examined showed no evidence of student-centeredness, as PowerPoint presentations were used most often and discussions or other activity-based learning techniques were minimal. Furthermore, although the curricula do not display signs of student-centeredness, some lessons used real-life scenarios in PowerPoint presentations. This could motivate adult learners to learn as highlighted by 56% of the documents reviewed. This could be in keeping with Knowles (1984) andragogical assumptions. Added to this, 78% of the curricula did not indicate that adults play a pivotal role in their learning. The use of PowerPoint presentations and note-taking was evident to a large extent.

Although the curricula showed signs of using some components of andragogy, such as student-centered lessons that include discussions and real-life scenarios, there were not enough signs of practical, student-centered approaches to teaching and learning to make a significant difference, as evidenced by Knowles's (1984) andragogical assumptions. Additionally, the researcher found no evidence to suggest that the curricula were being used to equip adult learners for life. Most importantly, most curricula appear to need review to meet the needs of 21st-century work skills.

In addition, from there view of the grade books in Table 17, items a) to e), only approximately 56% of the adult learners appear not to master what they are taught. The grade book generally shows interest in the courses being taught. At the same time, many adult learners attended their classes.

This research also examined the factors that could influence adult learners to continue learning. These are addressed in Research Question 2, with reference to Table 11. To answer research question 2, the researcher tested hypotheses to ascertain the roles of gender and parents' educational level in their motivation to continue learning.

4.3.3 Research Question 2 and Hypotheses 2 and 3

What factors play a role in motivating adult learners to continue learning in Antigua and Barbuda?

Motivation is a factor that could influence adult learners' performance both inside and outside of their learning environment (Donaldson et al., 2016). As such, the researcher deemed motivation an important factor in this study, as it propels adult learners to continue or discontinue their studies. Such factors could include the gender of adult learners, barriers encountered before and during their studies, and the educational level of their parents. To determine whether adult learners are motivated, the researcher examined data on what propelled them to continue learning. This will assist the researcher in determining whether the program management considers these factors and in assessing adult learners' willingness to continue their learning.

From Table 11 above, Item (h), fifty-one participants, or 35% of respondents, were to some extent enthusiastic about the delivery of their courses. In comparison, 40 participants, or 27% of the respondents, were enthusiastic to a high extent. Furthermore, 30 participants, representing 20% of the respondents, were enthusiastic to a very high extent. The other 18% of respondents either felt very little enthusiasm or none at all about how the courses are delivered. Motivation is also a significant factor in determining how much learners will continue learning. Most adult learners are motivated to continue learning. Ninety-six percent of the learners were motivated to some extent. However, only 47% were highly motivated, with

9% motivated to a very small extent and 4% not motivated at all. The researcher also sought to determine whether gender could influence learners' motivation or whether males and females are motivated similarly. To determine the role played by gender and adult learners' feelings about motivation in Antigua and Barbuda, the researcher tested the following hypothesis using a Chi-Square test of Independence. The Statistical Package for Social Sciences (SPSS) was used for the testing.

H₀ The variables gender and views of motivation of adult learners to continue learning are not associated.

H₁ The variable gender and views of motivation of adult learners to continue learning are associated.

The results of the Chi-square test of Independence indicate that the p-value is .773. Since this value exceeds the alpha level of 0.05, the result suggests that there is no statistically significant relationship between views on adult learners' motivation to continue learning and gender. Additionally, the effect size, calculated using Cramer's V, was 0.128, suggesting a moderate association between views on motivation among adult learners and their gender. The association of the two variables, therefore, needs to be considered when analyzing the data. In addition, the researcher also tested another factor related to Research Question 2 using the Chi-square test of independence. These are as follows:

H₀ The variables are the highest level of achievement attained by parents of adults learners, and their views on the motivation of adult learners to continue learning are not associated.

H₁ The variables' highest level of achievement attained by parents of adult learners and Views on the motivation of adult learners are associated.

To carry out this test, the researcher used data collected on adult learners regarding the

highest academic level of qualifications of their parents and their views on motivation to continue learning. For this chi-square test of independence, a cross-tabulation was performed in SPSS using learners' views on their motivation and their parents' highest level of education. The results of the Chi-Square test show a p-value of 0.176, which is greater than the standard alpha value of 0.05. Based on this factor, there is a statistically significant relationship between the educational level of adult learners' parents and their views on the motivation to continue learning. In keeping with this, the data show that the highest level of academic achievement attained by parents of adult learners in Antigua and Barbuda is not associated with how adult learners feel about continuing their learning.

The research data also revealed that the educational level of adult learners' parents in Antigua and Barbuda does not affect their motivation to continue learning.

Additionally, to better understand what motivates these adult learners to continue learning, the researcher sought to determine what they hoped to achieve, as the motivation of individuals often hinges on their life's goals or achievements. If the learning process in which adult learners are engaged is to be effective, it should be interesting, engaging, and aligned with their interests; otherwise, they will not be motivated to succeed (Uno, 2011). Such learners might be motivated to continue their learning if they are. To delve deeper into the motivation of adult learners, the researcher asked **What do you hope to achieve by taking part in these adult education programs?** Based on the emerging theme of better standard of living and a way of furthering their education, sixteen adult learners stated that they are pursuing these programs to improve their standard of living. Three of these adult learners expressed their reason as "This is an opportunity for me to get a better job, increase my income, and be able to live more comfortably. Another adult learner also stated that "enrolling in these programs will ultimately allow him to lead a more comfortable life." Another adult learner stated, "I enrolled in these programs because I want a better life for myself and my family. I hope to get an

increase in my salary once I complete my study.” Further, another adult learner posited, “There are things that I need to do for myself and my family, but I do not have enough resources to do so. Once I have finished what I came to do, I hope to accomplish these goals.” The remaining ten adult learners stated that they enrolled to get a better job, better pay, and improve their lifestyles. Further, one of the two remaining adult learners reported that enrolling in these programs for them could be stated as “an opportunity to further their education and enable them to be more knowledgeable.”

Furthermore, it was also important for the researcher to establish the level of motivation of adult learners to continue learning. Therefore, **the researcher also asked the adult learners: Do you have plans to further your education?** From the responses in Table 15, two respondents did not consider continuing their learning. One of these learners posited, “I just want to get my certificate and that is it...I have not given it any thought.” The other adult learner, when asked by the researcher what his plans are for education, stated, “This is hard enough as it is, I have no plans, I am not interested in doing anything else.... I just want to complete what I started...I have not given it a thought.” The researcher followed up by asking the adult learners about the reasons for their stance during the interview. The first learner stated, “Nothing in particular, that is just how I feel.... I need to relax a bit.” The second adult learner, who is of the female gender, stated, “Once I complete my studies, I want to concentrate on raising my family; I have no desire to continue....at least not now.” The other 8 respondents cited disinterest because they did not want to continue in school. One of these adult learners claimed, “I have no interest in continuing any studies.....I do not have the time. I have other urgent matters to deal with.” While another adult learner claimed, “I have other pressing matters now, that I have to deal with.... I cannot deal with further studies now.” Additionally, 8 respondents said that perhaps sometime in the future, they will engage in learning once again but were unable to state how soon when probed by the researcher. All of these adult learners

reluctantly cited financial issues. Of these, two adult learners also indicated interest in continuing with their education but for differing reasons. One of the adult learners stated, “I am very much interested, but I do not have the finances; I am working towards acquiring them,” while the other claimed, “I want to do this, to improve my skills, ... I want to do this.

For Question 1 of the interview schedule in 16, **the researcher sought to find out what facilitators believe motivates adult learners to continue learning.** In response, several themes were derived from the respondents' feedback. Among these are personal development, financial improvement, program efficiency, and self-improvement. Nine of the facilitators claimed that adult learners are motivated by money; one of these respondents, F1, claims, “Adult learners are motivated by money. They enroll because they want a higher salary or a promotion. Another facilitator, F2, is of the view that adult learners enroll to fill the gap in opportunities lost in their past education, particularly in their primary or secondary education. He states, “Some adult learners are motivated by missed opportunities, and they are convinced that they need this opportunity to accomplish their goals of acquiring a better opportunity.” Further, another facilitator interviewed by F3 claims that “adult learners are motivated by the rewards that they will acquire at the end of their program of study.” In addition, all six other facilitators felt that adult learners enroll in programs for personal development, whether to acquire new knowledge or skills, secure a better job, or obtain additional qualifications. In relation, F9 posited “Students are self-motivated, and they enroll to accomplish their goal of self-improvement, or a better salary or promotion. “Another facilitator, F12, cited that the adult learners are motivated by the efficiency of the programs. He claims, “I find that when it comes to adult learners, their motivation mainly stems from the efficiency of the programs they are pursuing. Once they do not feel stressed when pursuing the programs, they are motivated to continue.”

In response, all facilitators but one stated that they used student-centered methods in delivering their lessons. Methods or strategies such as a combination of practical and theory, direct approach, hands-on approach, coaching, and task-oriented strategies are in keeping with the themes of andragogy and experiential learning, as shown in Table 16. The other facilitator, F9, claims, "I do not do anything out of the ordinary; I do mainly regular lectures."

To determine whether the HOIs are excited about their roles as heads of institutions, which in turn could impact adult learners in a negative way and perhaps not dealing with any barriers which are encountered. In this regard, the researcher asked, "Have you always wanted to become a Head of Institution?" In response, HOI 1 and HOI 3 claimed that they had always wanted to be Head of Institutions, as their objective was to contribute to education. The next HOI, HOI 2, stated, "At first, I had no interest in heading an institution, but now I am of a different mindset. I enjoy what I do."

In summary, the evidence revealed signs of motivation among adult learners, as these learners alluded to. Additionally, there was evidence of andragogy in the curricula and the teaching and learning environment, as some adult learners showed enthusiasm and motivation in their work. However only a small number of adult learners representing thirty-five percent of Adult learners are enthusiastic about their courses, with only 20% to a very high extent. Also, the evidence revealed that only 47% of the adult learners are motivated to a very high extent. Additionally, less than 50% of adult learners interviewed are not sufficiently motivated to continue learning. The evidence gathered from interviews with the facilitators revealed that 50% share the view that financial betterment is the motivation for 50% of the adult learners enrolling in the adult education programs. In comparison, 39% of the facilitators hold the view that adult learners are motivated to enroll in these programs for personal development. Worthy of note is that the evidence revealed that a little less than 50% of adult learners are motivated to continue learning to a very high extent.

From the perspective of the Heads of Institutions (HOIs), the curricula need improvement. This is especially significant as one HOI representing 33% of those interviewed revealed that the curricula need to be more student-friendly. Furthermore, the curricula examined showed signs of the use of andragogy, which should motivate adult learners.

Moreover, it was important for the researcher to determine whether there were barriers that hindered adult learners' continued learning. These will be examined under Research Question 3 as stated.

4.3.4. Research Question 3 and Hypothesis 3

What barriers to participation exist for adult learners in Antigua to transition into lifelong learning?

The research question aims to identify barriers faced by adult learners at Antigua and Barbuda's three tertiary institutions. The identified barriers are tabulated in Table 18. A graph showing the barriers is also shown in Figure 5.

The data from Table 18 revealed that, overall, the barrier affecting adult learners most is financial or economic, which accounted for 68% among females and 33% among males. Additionally, the data revealed that 77% of female adult learners experienced barriers due to child or family responsibilities, compared with 23% of male learners. In addition, 66% of the females and 33% of the males stated that programs held at inconvenient times prevented them from pursuing education or training. Further, 69% of the females reported that having no prerequisites prevented them from entering the programs. This is comparable to 31% of males who also cited this reason. Additionally, 69% of females reported that they do not meet the prerequisites to enroll in the programs, whereas only 31% of males shared this view. It was also reported by 57% of female adult learners that a lack of employee support inhibited their enrollment in any adult learning program. Likewise, 43% of the males reported that this was a

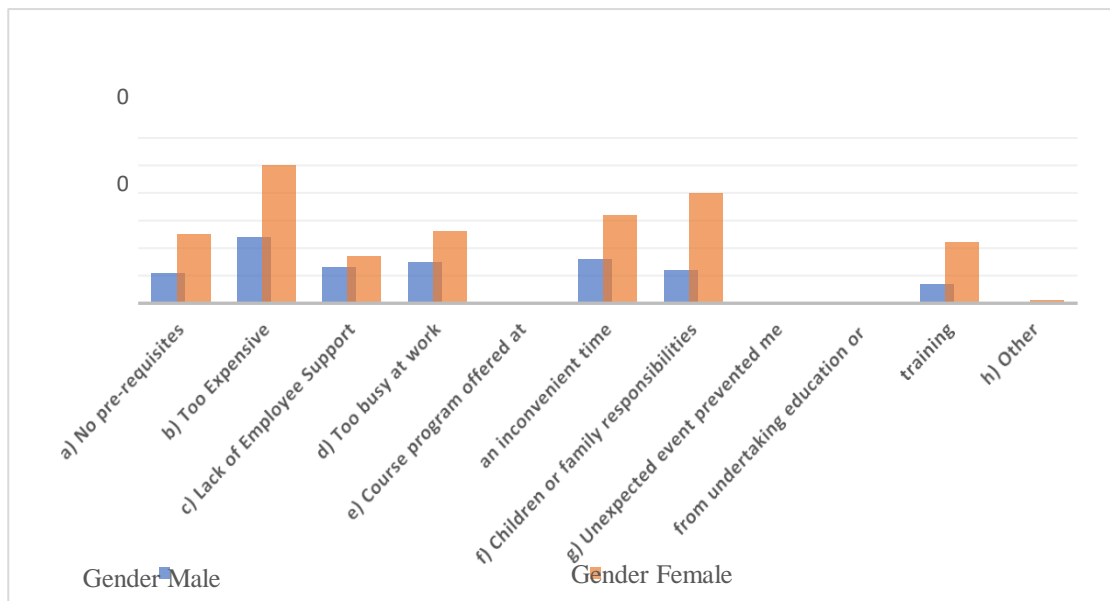
barrier that they faced. Additionally, only one male and one female adult learner, each representing 50%, reported being affected by other barriers.

Table 18

Barriers encountered before and during enrolment

Barriers Encountered	Gender				
	Male	Female	Total	Male %	Female %
a) No prerequisites	11	25	36	30.6	69.4
b) Too Expensive	24	50	74	32.4	67.6
c) Lack of Employee Support	13	17	30	43.3	56.7
d) Too busy at work	15	26	41	36.6	63.4
e) Course program offered at An inconvenient time	16	32	48	33.3	66.7
f) Children or family responsibilities prevented them from not undertaking education or training.	12	40	52	23.1	76.9
g) Other	2	1	2	50.0	50.0

The barriers encountered by adult learners is also shown in Figure 5 below.

Figure 5*Barriers encountered by adult learners*

The researcher further probed into the barriers encountered by adult learners to ascertain if any anomalies in data from the questionnaires were highlighted.

The researcher inquired of the adult learners who were interviewed, **“What obstacles to enrollment have you encountered before enrolling in adult education programs?”**

“How do you overcome these barriers?” The major themes emerging from this question are a lack of organizational skills, poor time management, family constraints, and economic constraints and are highlighted in Table 15. One participant responded, “I feel like I am very disorganized; it is challenging for me, especially juggling between my schoolwork and the duties that I am settled with at home, especially with my family.” Another learner, when interviewed, disclosed that it is a struggle to deal with schoolwork and family matters. I don’t think that I am coping as I should, having to deal with all these things.” Moreover, one adult learner cited family constraints as the biggest obstacle confronting them. She stated, “It is very stressful for me having to deal with studying, family, and work life. At times, I feel very pressured.” Additionally, seven adult learners felt that economic constraints were the barriers

encountered. As postulated by one of these adult learners, “It is a struggle for me to pay the fees.... I have a lot of expenses, including providing for my children, who are still in school. My resources are just not enough. “Moreover, another adult learner explained the situation she experienced enrolling in this program: “It was challenging getting to this point. I had to seek funding, so getting here took me a while.” Additionally, four other adult learners stated, “Finances were scarce.” Another adult learner stated, “It was a challenge. I had a lot of financial challenges, but I do not want to go into it now.” Seven adult learners cited that they disliked school and had no genuine interest in enrolling in any program. Of the seven adult learners, two claimed that they never liked school and were coerced by family members to enroll. Another stated that he still does not like school, but everyone at work is passing him up. The other four adult learners did not state specifically why they dislike school. The facilitators' perspectives were also sought to ascertain their views on the adult education programs and on the adult learners enrolled in these programs.

To further enquire into the barriers confronted by adult learners, as sought by Research Question 3, the researcher sought the facilitators' perspectives to account for any perceived barriers. As such, the researcher asked the facilitators the following question: **In your opinion, what are the most significant barriers to learning that students encounter before and after enrollment in adult education programs?** From the facilitators' responses, the following themes emerged: gaps in education, time management, financial responsibilities, knowledge, and inadequate course management. Facilitators F1, F2, and F10 reported gaps between what they were taught in primary and secondary school and their enrollment in adult education programs. F10 describes his experience gained from facilitating adult learners as “It is sometimes challenging to get through to some adult learners; they appear to be lost in the learning environment, and it is sometimes extremely difficult for me as a facilitator to work with them.” Other facilitators, F5, F6, F8, F9, F11, and F12, view adult learners as facing

financial barriers. One of these facilitators, F12, stated, “I think that one of the most significant barriers is finance. In some cases, it is not because they lack finances, but because they use it irresponsibly and not as it is intended. However, for some, not having finance poses a real problem.” Also, of significance to the responses of the facilitators is that several facilitators, F3 to F6 and F11, F16, and F17, stressed time management as a barrier during enrollment. However, F17 stated, “One of the major barriers that students encounter before enrolling in adult education is finding the time to start their studies. They get caught up with many home and work activities.” Three facilitators, F13, F14, and F18, expressed the view that adult learners lacked the requisite knowledge. In this situation, one of the facilitators, F13, postulates that it often proves challenging for facilitators as they would have to work harder to bring those adult learners on par with their peers.” One facilitator, F15, even cited the age of returning to education as a barrier.” He claims, “In such a situation, the adult learners oftentimes lack confidence, and they have to be encouraged to display a more positive attitude while they are engaged in the learning environment. and lacked confidence in doing so.” Also, F7 believes that inadequacy of the management of courses is a turn-off for some learners. He articulates “when adult learners come to the learning environment, they want to see curricula, scheduling of courses and lecturers in place for their learning. The absence of these could result in demotivation of the learner.” Additionally, when the researcher probed the facilitators about **how they assist adult learners in overcoming their barriers**, all facilitators stated that they provide guidance, counseling, and financial assistance when required. All the facilitators stated that if the needs of the adult learners are not met, this could affect their motivation to continue with their studies.

To get the views of the Heads of Institutions on the barriers to participation that exist for adult learners in Antigua and Barbuda to transition into lifelong learning? The researcher asked the HOIs to highlight the most significant barrier experienced by adult learners in their

respective institutions. All HOIs agree that adult learners experience obstacles while enrolling at the institutions. However, two HOIs, HO1 and HO3, highlighted that the most significant barrier experienced by their adult learners is a lack of finances. Additionally, the third HOI stated, “Adult learners experience challenges which can be described as the lack of motivation, fear of failure, and unrealistic expectations of the time needed, as well as the effort required to pursue the course of studies on the part of students. This can lead to high failure rates and retention issues.” She further posits, “Sometimes the students require additional support in time management, study skills, research, and writing skills, and these options are often left out of adult education programs.”

The researcher then asked what measures are in place to address these barriers.

In response, HOI 1 stated, “We provide money management and guidance to the students who appear to need this assistance. However, it is a very delicate area, and so we have to approach it carefully.....we do not want the student to feel embarrassed, although it is for their benefit.” Another HOI 3 cited, “In situations like those, we discuss with them and direct them to one of the government agencies that give scholarships or, depending on the situation, one of the credit unions.” Moreover, the third HOI postulated “sometimes the adult learner just needs to be in a different environment and based on their situation at home, we direct them to educational institutions overseas, where they can get scholarships... something like this is as a last resort.” Additionally, the third HOI stated, “Adult learners experience challenges which can be described as the lack of motivation, fear of failure, and unrealistic expectations of the time needed as well as the effort required to pursue the course of studies on the part of students. This can lead to high failure rates and retention issues.” She further posits, “Sometimes the students require additional support in time management, study skills, research, and writing skills, and these options are often left out of adult education programs.”

The researcher also sought the views of two Ministry of Education officials. When the researcher inquired of the Ministry of Education Officials about the challenges faced by the management of the adult education programs, both MOEs agreed that they need support in time management, need to be taught time management skills, and need to be counseled on managing competing life activities. In response to time management, MOE 1 stated, “Some of the adult learners are not able to cope, having been out of school for such a long time. They tend to procrastinate a lot when engaging in learning. This creates several challenges for the managers of the programs.”

In conclusion, the evidence on barriers, gathered from adult learners who completed the interview, revealed that financial barriers affected the majority of adult learners, followed by personal development. Furthermore, evidence from the majority of adult learners who completed the questionnaire indicated that children or family responsibilities prevented them from enrolling in the programs. However, the evidence also revealed that more female adult learners encountered this barrier than males did: 76.9% of females compared to 23% of males. Additionally, the evidence showed that adult learners interviewed cited financial constraints as the primary barrier, with only one adult learner citing family matters as a barrier to enrollment. The researcher also sought the perspective of the facilitators. Evidence gathered from interviews with 33% of the facilitators indicated that they believe financial constraints prevented adult learners from enrolling or continuing in their programs. Despite this opinion expressed by 33% of facilitators, evidence from all facilitators indicated that they assisted adult learners with these barriers by advising them on money management or encouraging and guiding them to seek scholarships.

Moreover, data on Socioeconomic factors, the highest educational level attained by adult learners, is shown in Section A of the Adult Learners Questionnaire (See Appendix F). This will provide answers to Research Question 4.

Research question 1 will now be examined.

4.3.5. Research Question 4. And Hypothesis 1

To what extent do socioeconomic factors, such as the highest educational level attained by their parents, influence the transition of learners from secondary to tertiary education and beyond?

The pathway taken by adult learners is shaped by the available opportunities and the constraints imposed by their cultural background and social structures (Desjardins and Warnke, 2012). Many factors could influence adult learners' transition to continuous learning. It is, therefore, imperative that the researcher examine these factors. According to Setiawan (2020), parents' educational level can positively influence students' learning. As further purported by Bukodi et al. (2018), the educational level attained by the parents of adult learners is an indicator that can be used. Bukodi et al. (2018) further asserted that, depending on the educational level of these learners' parents, their children can be guided along similar pathways.

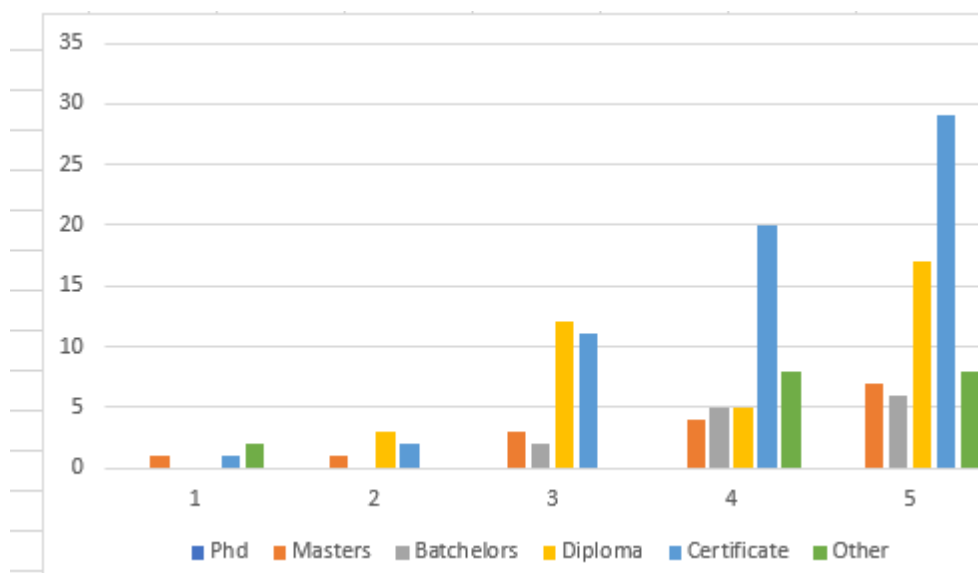
However, as indicated by the Chi-square test of independence, no association was found between the highest academic level attained by parents of adult learners and their views on motivation to continue learning. The Chi-Test result revealed a chi-square value of .176, which is greater than the standard alpha value of $p=.05$. This was supported by Neupane et al. (2021), who suggest that no relationship exists between parents' academic status and their children's highest level of academic performance. Apart from the Chi-Square Tests carried out, the researcher wished to examine the data further to ascertain whether the test results fully support what the learners cited as factors preventing their enrollment in adult education or affecting them during enrollment in these programs.

The data in Table 19 below were collected from Section A, question 5 of the Questionnaire and tabulated. The study found that adult learners in Antigua and Barbuda did not have parents who possessed PhDs. Hence, adult learners' level of motivation at that level

Data on the educational levels of parents of adult learners and the motivational levels of adult learners to continue learning are presented in Figure 6.

Figure 6

The Educational Level Attained by Parents of Adult Learners and Levels of Motivation



Source: Adult learners' questionnaire

Additionally, the educational level and social origin of adult learners can affect their transition into continuous learning. Given the proven link between social origin and educational attainment, the researcher refers to the demographic data presented in Table 17 of this research.

In conclusion, based on the chi-square test of independence between the highest educational level attained by the parents of the adult learners and their motivation to continue learning. The data revealed that no such relationship exists in Antigua and Barbuda. Most of the adult learners whose parents had only a certificate-level qualification were highly motivated. This comprised 29 adult learners out of a total of 63. Moreover, 46% of adult learners whose parents held a Diploma were also very highly motivated, representing 17 of 37

adult learners. Likewise, only 6 of 13 adult learners had parents with bachelor's degrees, representing 46.2% of the adult learners. These adult learners were also very highly motivated.

Research Question1.

How well-equipped are adult education programs to transition learners into lifelong learning?

To answer this research question, the efficiency of the adult education programs was investigated using questionnaire results from phase 1 and interviews with adult learners, facilitators, heads of institutions, and Ministry of Education officials, as well as gradebooks from phase 2, the qualitative phase. The questionnaire examined references to learning to ascertain the programs' efficiency and whether andragogical elements were embedded in the teaching and learning environment. The theory of andragogy, as proposed by Knowles (1984), highlights that adult learners are more motivated when learning is more student-centered and experiential. Therefore, the curricula and teaching and learning environment should consider the adult learners (Poudel, 2020).

The findings from the Gradebooks and curricula examined revealed evidence of andragogical assumptions that should motivate learners to continue learning. Furthermore, the questionnaire findings provided evidence of the use of andragogy in the teaching and learning environment in Antigua and Barbuda. However, this is to a high extent rather than to a very high extent. Furthermore, most adult learners interviewed in the qualitative phase reported that their experience in adult education programs was not very welcoming, with only 27% expressing enthusiasm for the programs. Despite this, most adult learners interviewed described their experience of enrolling in the programs as enjoyable, representing 44% of adult learners. Additionally, most adult learners who completed the questionnaire reported that elements of the andragogical assumptions, such as discussions and shared experiences, form part of their learning. In support of the majority of adult learners, andragogical

principles and experiential learning were used in the learning environment. In addition, the researchers sought to obtain the adult learners' perspectives on the programs' efficiency. In this regard, most adult learners believe that adult education programs are, to some extent, appropriately managed. Only 14% reported that the programs are managed to a very high extent. In support, some of the adult learners interviewed (44%) reported that the programs are well-managed, and the same number (44%) reported that they are not well-managed. Notwithstanding this, 96% of adult learners reported that the programs need to be restructured. This is supported by the heads of institutions, who reported that some aspects of the programs need improvement. However, most of the facilitators interviewed (61%) reported that the courses used in the programs are adequate. Only a few adult learners (6%) reported that their courses were inadequate. Research Question 2 examines the factors that motivate adult learners to continue learning.

Research Question 2

What factors play a role in motivating adult learners to continue learning in Antigua and Barbuda?

Based on the literature, several factors were examined to determine their effects on adult learners' motivation to continue learning. Factors identified in the literature include gender, barriers encountered before and during their studies, and the educational level of adult learners' parents. Other factors explored in the interviews, such as the program's structure and management, and some barriers encountered, such as financial constraints and those discussed in question 3, could play a role in motivating adult learners to continue learning. Also, how adult learners perceive the programs, or the reasons they enroll in them, could influence their motivation to continue learning.

The questionnaire data indicate that although most adult learners are motivated to some extent, only a few feel very highly motivated to continue learning. The questionnaire data also

revealed that adult learners' gender did not affect their motivation to continue learning, as indicated by the Chi-Square Test of Independence conducted between gender and motivation to continue learning. Also, in Antigua and Barbuda, the barriers encountered by adult learners and the educational level of their parents do not play any role in the level of motivation to continue their learning, as experienced by the majority of learners. This was based on the Chi-square tests of Independence undertaken by the researcher for each variable.

From the interviews, most adult learners (89%) enroll in adult education programs to improve their standard of living, while only a few (11%) state they have no intention of furthering their education. Also significant is that when asked about their plans for furthering their education, some adult learners (44%) reported having no desire to do so, with a few (11%) giving this no consideration. From the perspective of the adult learners, most (50%) of the learners interviewed are motivated by financial betterment, followed by personal development (38%). Additionally, the role of barriers before and during enrollment is a factor that could influence learners' continued learning, but, as stated, this will be examined under Research Question 3.

Examination of the majority of the curricula (56%) also revealed evidence that could motivate adult learners to continue learning, such as facilitators expounding on the benefits of continuing the courses. However, less than 50% of the curricula indicated that the subjects they include are exciting and motivating.

Research Question 3:

What barriers to participation exist for adult learners in Antigua to transition into lifelong learning?

In conclusion, based on the questionnaire data, most adult learners cited the high cost of the programs as the primary barrier they encountered, especially for females. This was followed by children or family responsibilities as the factors keeping them from enrolling in

adult education programs. Also, a significant percentage of adult learners who completed the questionnaire cited no prerequisites as a barrier. The data also showed that some adult learners reported they could not enroll in the programs because the scheduled times were inconvenient, and some cited a lack of support from their employers as a barrier. The data collected from interviews with 33% of adult learners aligns with the questionnaire data, as the significant barrier encountered before and after enrollment is financial or economic in nature. There was also convergence with the data collected from interviews with facilitators (28%), adult learners (6%), and heads of institutions (67%). They all agreed that time management was a barrier encountered by adult learners. However, the data collected from the interviews diverged: 16% of adult learners interviewed cited a lack of requisite knowledge as a barrier, whereas neither students nor Heads of Institutions did. Dislike of school was also a significant barrier cited by 39% of the learners interviewed, but facilitators or Heads of Institutions did not highlight it. These barriers could have a trickle-down effect, preventing adult learners from completing their programs or continuing in adult education.

Apart from barriers to adult education that adult learners encounter, socio-economic factors such as gender and the highest educational level attained by their parents can influence individuals' skill development. Section A of the Adult Learners Questionnaire shows data on Socioeconomic factors and the highest educational level attained by adult learners (See Appendix F). This will provide answers to Research Question 4.

Research Question 4.

To what extent do socioeconomic factors, such as the highest educational level attained by their parents, influence the transition of learners from secondary to tertiary education and beyond?

The data on socioeconomic factors, including gender and the highest level of education attained, were explored. However, since a chi-square test of independence was conducted to

determine whether a relationship exists between gender and the level of motivation of adult learners in Antigua and Barbuda, the researcher would not explore this factor under the socioeconomic factors.

A Chi-square test of independence was conducted to examine the relationship between the highest educational level attained by the parents of adult learners and their motivation to continue learning. The data revealed that no such relationship exists in Antigua and Barbuda. The data from the questionnaire showed that most adult learners whose parents had only a certificate level of qualification were very highly motivated. This comprised 29 adult learners out of 63, or 46% of the adult learners. Moreover, 46% of adult learners whose parents had a diploma were also very highly motivated, representing 17 of 37 adult learners. Likewise, only 6 out of 13 adult learners, representing 46% of learners, had parents who held bachelor's degrees. These adult learners were also very highly motivated.

After exploring all the data on adult learners' responses, the researcher will evaluate the study's results in the next section.

4.4 Evaluation of Findings

This research aims to investigate the management of adult education programs and their effect on lifelong learning in three tertiary institutions in Antigua and Barbuda. Four research questions guided the data collection process. Further, Knowles's (1984) theory of andragogy informed this research. The researcher used a mixed-methods, sequential, explanatory design to collect both quantitative and qualitative data. The questionnaire was used to collect quantitative data, while the semi-structured interview tool and document analysis form were used to collect qualitative data. The results from both methods were triangulated to arrive at the findings. Moreover, the findings from each research question were evaluated against the literature review and the andragogical assumptions, which serve as the theoretical framework for this research.

The first research question focused on how equipped adult education programs are to transition learners into lifelong learning. Sections B and D of the Adult Learners' Questionnaire in Appendix F focused on the efficiency of managing adult education programs and the learning preferences of adult learners. The factors that motivated adult learners were also examined in Research Question 2 to determine what motivates them to continue learning and the role of barriers and socio-economic factors in the effectiveness of adult education programs. Under the theory of andragogy, the assumptions proposed by Knowles (1984) support the idea that adult learners are self-directed, engage in experiential learning, are problem-centered, need to know why they are learning what is taught, and are internally motivated. Moreover, question 3 focused on the barriers encountered by adult learners, while question 5 focused on the socio-economic factors such as gender and the highest level of education attained by the parents of adult learners and their effect on the motivation of adult learners.

In light of these, if adult education programs are to be effective and efficient, management must consider the use of Knowles's (1984) assumptions when designing the programs. Effective and efficient adult education programs can significantly impact a country's social and economic development (Liashenko, 2020).

4.4.1 Research Question 1.

How equipped are the adult education programs to transition learners into lifelong learning?

This question examines the efficiency of adult education programs and the learning preferences of adult learners to ascertain whether program management considers andragogy in program design, whether it is practiced, and whether adult learners are receptive to it based on their learning preferences. Examining the efficiency of adult education programs and learners' learning preferences will determine whether adult learners are motivated to continue learning and thereby transition into lifelong learners

Most adult learners who completed the questionnaire reported some motivation to continue their learning, to a high or low extent, but none reported a very high extent. Only a small number of respondents, less than 50%, are motivated to continue learning to a very high extent. This is significant to the programs' efficiency. In keeping with Poudelet et al. (2020), planned events outside adult learners' control are important. If these programs generate low motivation among adult learners, very little learning will occur (Wlodkowski & Ginsberg, 2017). As such, this could determine the level of adult learners' involvement in the programs and impact their motivation to continue learning.

Additionally, only a few of the adult learners interviewed were enthusiastic about their learning; however, most described their experience of enrolling in the programs as enjoyable. The fact that 44% of the interviewed adult learners describe the programs as unwelcoming is alarming, as this suggests that their readiness to learn may not have developed sufficiently and is not in keeping with their social roles as self-directed learners (Knowles, 1984). Alternatively, this could suggest that, although engaging in adult education programs, these programs may be beyond the learners' control (Poudel et al., 2020) or fail to be relevant to the learners' lives (Knowles, 1980). The disparity in adult learners' feelings about the programs could stem from how the programs are planned or their different learning styles. If the programs are to be efficient, they must be effective. These programs should consider the adult learners' learning styles when they begin (Hong, 2017). Additionally, some adult learners may perceive the programs negatively, not because they are poorly managed, but because of their lifestyles and socioeconomic status (Mengistie, 2022).

The findings also indicated that the curricula used may not cater to all learners' needs, which could affect their transition to continued learning. This was evidenced by the heads of Institutions who believed that the curricula needed to be overhauled. This is also consistent with what some adult learners believed. If the programs are not welcoming to adult learners,

this could suggest that insufficient management oversight did not occur, as Cherry (2018) advocated, to ensure their effectiveness. As reported by McLeod (2018), if adult learners' basic needs are met upon enrollment, they may become demotivated unless a greater need is satisfied. Therefore, to consistently keep adult learners motivated, management must continuously monitor programs.

Under Knowles' (1984) theory of andragogy, adult learners are mostly internally motivated to learn and may continue learning; however, there is no widespread evidence of this internal motivation in the questionnaire and interview data. Hence, these learners must be motivated from within to perform their best. Intrinsically motivated adults often engage in activities without external motivators (Morris et al., 2022). The questionnaire data revealed that adult learners in Antigua and Barbuda are externally motivated. If adult learners are to learn at their best, they need to be internally motivated and self-directed (Knowles, 1984). Further, based on the literature by Knowles (1984) and Merriam et al. (2007), if learning among adult learners is to be meaningful, they must bring their own learning experiences into the learning environment. Therefore, it requires careful examination of the curricula, modes of delivery, and all aspects of the learning environment of these learning institutions to identify any weaknesses.

Also, the degree to which adult learners engage in learning influences their motivation to learn (Brookfield, 1986; and Knowles et al., 2015). Without an enabling environment, adult learners may not be motivated to continue learning (Comings, 2023). The findings revealed that the teaching and learning environment is suitable to some extent, but more needs to be done to ensure it caters to the needs of all learners and helps them become lifelong learners. Adult education programs can only be deemed efficient if all learners find them welcoming and engaging.

If adult learners are to be successful in the learning environment, learning must be

meaningful. Adult learners must be able to utilize the knowledge they bring to the learning environment (Knowles, 1984). This was evidenced by most adult learners who completed the questionnaire and reported that elements of the andragogical assumptions, such as discussions and shared experiences, formed part of the teaching and learning environment. In support of this, the interviewed facilitators also highlighted that they use experiential learning in the teaching and learning environment, as purported by Knowles (1984).

Furthermore, data were collected on the efficiency of the adult education programs. How adult learners feel about adult education programs could determine how efficiently they are managed. As articulated by Mariyadas and Ar. (2022), if adult learners are unsatisfied with their programs, management should interpret what is happening and provide intervention to neutralize or eliminate unwanted situations. The majority of the adult learners who completed the questionnaire reported that the programs are, to some extent, properly managed. However, only 14% reported that they are adequately managed to a high extent. In support, it was also reported by the adult learners interviewed (44%) that the programs are well managed, and the same number (44%) of learners interviewed reported that the programs are not well managed. Of interest in the data is that, notwithstanding this, 96% of adult learners who completed the questionnaire reported that the programs need to be restructured.

The fact that 96% of the adult learners who completed the questionnaire believe the programs need to be restructured highlights the extent to which the programs' structure is suitable for adult learners. The results of the findings on the appropriateness of the programs vary between students who completed the questionnaire. In addition, data collected from the three heads of institutions indicated that some aspects of their programs need improvement. Furthermore, most of the facilitators interviewed (61%) reported that the courses used in the programs were adequate, while only 39% reported that the programs were inadequate. The extent of feelings among adult learners, facilitators, and heads of institutions, and the

perceptions of the adequacy of adult education programs in transitioning learners to lifelong learning, all indicate that some form of restructuring is needed. However, the extent of the restructuring differs. Also, the findings reveal that Ministry of Education officials were satisfied with the program structure. All participants in the study, except Ministry of Education officials, were satisfied with the program structure. This has significance to the management of the programs. Perhaps interventions are needed, as suggested by Mariyadas & Ar. (2022) Interventions need to be made to examine the current level of intervention in the programs.

Additionally, as espoused by Robbins & Coulter (2012), elements of the Hygiene Factor Theory of management can be helpful in managing these programs effectively. Therefore, the management of adult education programs needs to be aware of hygiene factors and apply them appropriately. As posited by Herzberg (1966), one of these factors is the conditions under which individuals work and the status under which they thrive. There is no evidence from the data collected that these factors are supported, as most adult learners find the programs unwelcoming. Also, as indicated by Robbins et al. (2015), the evidence supporting the use of all available human and material resources was lacking. Otherwise, some adult learners would not view the programs as unsuitable for their needs.

Moreover, in keeping with the assumptions of andragogy, as cited by Knowles (1984), adult learners relate new ideas to real-life situations. Many of the adult learners who completed the questionnaire agree with this assumption. However, only a small percentage of learners, approximately 18%, agree with this to a very high extent, suggesting that some learners do not think critically enough to make linkages. In addition, Knowles (1984) assumes that adult learners enjoy learning new things and sharing their experiences. However, although most adult learners agree that this is so, none do so to a very high extent, and 56% of the learners experience this to a high extent. As suggested by Poudel et al. (2020), the assumptions of Knowles (1984) regarding learning experiences and the enjoyment of sharing them are not

supported to a very high extent, as some activities planned for adult education programs are not suitable for all learners. Such activities are beyond the learners' control. This suggests that, although adult learners in Antigua and Barbuda demonstrated Knowles's (1984) assumption to some extent, it needs to be practiced to a very high degree. Likewise, the gradebook and curricula of adult learners were examined to determine if there were signs indicating the efficiency of how the adult education programs were managed. The result revealed that 44% of student-centered approaches, as indicated by Knowles' (1984) andragogical assumptions, were used during the teaching and learning process. Mostly PowerPoint presentations were used, and minimal use of discussions or other activity-based learning techniques. Consistent with this, the results revealed that 78% of the curricula examined did not indicate that adults play a pivotal role in their learning, since the use of PowerPoint presentations and note-taking was evident to a large extent. Although the curricula do not display signs of student-centeredness, the real-life scenarios embedded in the PowerPoint presentations could account for what some facilitators deemed student-centered teaching and learning. Perhaps this motivated some adult learners, as highlighted by 56% of the documents analyzed. Although minimal, the results revealed some use of the andragogical assumptions as purported by Knowles (1984).

The findings from an examination of the grade books, which represent 56% of the adult learners, show that they have mastered what they are taught, with only 44% being motivated by it. From the gradebooks, it cannot be concluded that their interest in the courses is generally lacking. However, based on the results, it can be deduced that some facilitators are practicing andragogy. In addition, 78% of the grade books examined showed that the adult learners mostly attend classes, so any performance shortcomings could not be attributed to absenteeism.

Proponents of management efficiency believe that if adult education programs are to be efficient, management must meet organizational objectives (Galbraith, 2014) or achieve a

high standard of output to benefit adult education institutions (Robbins et al., 2015). The factors that propel adult learners to continue learning are presented below.

4.4.2 Research Question2:

What factors play a role in motivating adult learners to continue learning in Antigua?

A chi-square test of independence was used to assess whether a relationship exists between the variables, identify factors that influence adult learners to continue their learning, and determine which factors influence adult learners to continue their learning. Some factors related to this study include gender and the highest level of education attained by the parents of these adult learners.

The result of the Chi-Square test of independence indicated that the p-value is .773. Since this value is greater than the alpha level of 0.05, it yielded no significant relationship between gender and adult learners' views on their motivation to continue learning. This result was supported in the literature by Chung & Chang (2017), who found no significant difference in the motivation to continue learning between adult learners by gender. However, the test result was not supported in the literature by Naz (2020), who claims that an individual's gender can act as an academic motivator. Also, female students are more motivated academically to achieve their goals. Based on the findings, there is strong evidence of adult learners in Antigua and Barbuda, and motivation is not influenced by gender. However, given the large number of females who enroll in adult education programs compared to the small number of males, it could give the appearance that female adult learners are more motivated than male learners, but this is not the reality. If a relationship existed, it would have shown that more females are motivated to continue learning, as indicated by the literature from Naz (2020). However, no evidence exists of such a relationship in Antigua and Barbuda.

Furthermore, the results of the Chi-square test of independence on the highest

educational attainment level of adult learners' parents and the level of feelings about motivation espoused by adult learners in Antigua and Barbuda showed a p-value of 0.176, which is greater than the standard alpha value of 0.05. This result indicated no relationship between the two variables. This runs counter to most of the literature, which indicates that parents' educational attainment strongly influences their children's educational attainment (Benner et al., 2016). Most of the adult learners who completed the questionnaire had high levels of motivation. However, the results provided no clear evidence that the parents' motivation was tied to their level of education, suggesting that they were motivated by their parents' coercion to increase their interest in education. Most of the parents of these adult learners attained mainly a Certificate as part of their academic achievement. As such, in line with the literature by Benner et al. (2016), most adult learners would have shown and expressed lower motivation to continue their learning.

In addition, evidence suggests that many adult learners find the program unwelcoming and that it needs restructuring. The findings also showed that more than half of the adult learners interviewed were either not interested in learning or had not considered this. This supports Benner et al.'s (2016) literature to some extent. Since their parents did not achieve high academic performance, the adult learners may be satisfied with only a Certificate-level achievement. As suggested by Knowles (1984), these learners may be more motivated by external factors than by internal influences on their learning. The adult learners' responses were not in keeping with Knowles's (1984) view that adult learners are motivated by external factors, as there is no evidence to the contrary for most adult learners. The findings did not reveal that adult learners had strong internal motivation to continue learning.

Furthermore, the interviews show that adult learners in Antigua and Barbuda are motivated to continue their learning for various reasons. Approximately 89% of adult learners enrolled in their program to improve their standard of living, with only a few learners

interviewed (11%) claiming that they have no intention of furthering their education. Also significant is that when asked about their plans to further their education, some adult learners (44%) reported no desire to do so, with a few (11%) giving this no consideration. This is not surprising, since 44% of the learners who completed the questionnaire appear to have enrolled only to improve their standard of living and would have no desire to continue learning until the need arises again or if they are externally motivated. Similarly, the results from interviews with facilitators about what motivates adult learners reveal that 50% of facilitators cite extrinsic motivation by financial rewards as a factor in adult learners in Antigua and Barbuda.

Furthermore, from the facilitators' perspective, fewer than half of the adult learners in Antigua and Barbuda are intrinsically motivated, citing personal development as their reason for enrolling in the programs. In addition, as highlighted by the facilitators, the results show that a small number of adult learners interviewed also want to improve their education and are therefore intrinsically motivated. The findings from interviews with adult learners and facilitators showed that the majority of adult learners in Antigua and Barbuda are externally motivated, although a few remain intrinsically motivated. According to the findings, the dominant motivator for adult learners is the desire to improve their standard of living, not to become self-actualized. The evidence provided is not surprising, as Donaldson et al. (2016) posit that internal or external factors can influence adult learners in the learning environment.

The findings from the examination of the majority of curricula (56%) revealed evidence of the use of some degree of andragogical assumptions. Also, fewer than 50% of the curricula indicated that the courses comprising them are exciting and motivating. According to Knowles' (1984) andragogical assumptions, these learners are not intrinsically motivated. Motivation is a factor that can influence adult learners' performance both within and outside their learning environment (Donaldson et al., 2016). The evidence from this study indicates that adult learners in Antigua and Barbuda are mainly driven by financial gain and may not necessarily continue

their education. This evidence is consistent with that collected from adult learners and facilitators. Based on the results, adult learners' motivation in Antigua and Barbuda to continue learning can come from within and outside the learning environment, as shown in the literature; however, most motivation is externally driven. Also worthy of note is that the evidence revealed that some adult learners have no interest in continuing their studies at all, or to some extent, because these learners might not be self-directed, intrinsically motivated, or learn differently from children (Jarvis, 2006). This could have implications for how these learners are taught. Also, the literature on andragogy by Knowles (1984) does not consider social and economic factors, such as the gender and educational levels of adult learners' parents (Sandlin, 2005), yet these factors do not influence the motivation of adult learners in Antigua and Barbuda. Notwithstanding this, strategies to address these factors need to be developed.

The evidence from this study supports the idea that adult learners in Antigua and Barbuda are mainly motivated by external factors, such as finance, and a small number of adult learners enrolled in adult education programs are motivated by internal factors, such as personal development. Therefore, because individuals' personal development can be either internally or externally motivated by money, adult learners in Antigua and Barbuda are motivated by internal or external factors. (Donaldson et al., 2016). However, the influence of the internal stimulant is minimal. Therefore, managers of adult education programs need to be cognizant of this and ensure that adult learners are motivated, creating an enabling environment that accommodates their learning.

The following section shows the results of examining the barriers adult learners encountered in Antigua and Barbuda.

4.4.3 Research Question 3

What barriers to participation exist for adult learners in Antigua to transition into lifelong learning?

The findings of this research question focused on barriers, which, according to Cross (1981), can influence adult learners' motivation to achieve academically. These barriers could be situational, institutional, or dispositional in nature.

The findings from this research revealed that the most significant barrier encountered by 50% of adult learners who completed the questionnaire is financial in nature and classified by Cross (1981) as situational. Moreover, as advocated by Sheldon (2021), such barriers are viewed as any barrier which affects the adult learners educational journey., as such this encompassed the large percentage of adult learners who were too busy at work, as well as those adult learners who lacked their employers support. However, the number of adult learners who lacked their employers' support in beginning their studies is small compared to those faced with financial barriers. From the evidence, it can be construed that such adult learners may not see the importance of enrolling in the programs and may prefer to remain at work, perhaps to secure additional funds.

Moreover, evidence from interviews with 39% of adult learners aligns with the questionnaire data, indicating that the significant barrier encountered before and after enrollment is Financial or economic in nature. This highlights the importance of convincing adult learners to invest in education if they are to transition into lifelong learning. However, a large percentage of adult learners cited children or family responsibilities (52%) as another barrier encountered in Antigua and Barbuda. However, based on the literature, these barriers are not unique to adult learners in Antigua and Barbuda. According to Kimmel et al. (2016), significant barriers to adult learners seeking to enroll in adult education include life events, parenting responsibilities, socioeconomic status, and prerequisite education.

Dislike of school was also identified as a significant barrier, but only 39% of the adult learners interviewed reported it. Further, the data collected from interviews with facilitators revealed that the most significant barrier to adult learners' enrollment is financial responsibilities, which prevented them from enrolling or interfered with their studies. Moreover, the data collected from two of the three heads of institutions interviewed (67%) converged with that of the facilitators, who reported that the most significant barrier affecting adult learners is finance. However, the evidence collected from the two Ministry of Education Officials diverges, as they share the view that time management is the most significant barrier encountered by adult learners.

Most of the barriers encountered by adult learners in Antigua and Barbuda align with the barriers posited by Cross (1981) in the literature. Such barriers arise from external needs and could affect their prospects of transitioning into lifelong learning (Cross, 1981). If these barriers are to be reduced, the managers of adult education institutions, through their facilitators, must ensure that adult learners are provided with a learning environment that reduces the barriers they encounter (Wlodkowski et al., 2017). Moreover, the lack of prerequisites to enter the programs, identified by Mackeracher et al. (2006) as academic barriers, could also be dealt with by the management of these programs, by creating pathways for adult learners to access these programs.

Socio-economic factors, such as the highest level of education attained by adult learners, could also influence their transition from secondary to tertiary education and beyond. We will examine this below.

4.4.4 Research Question 4.

To what extent do socioeconomic factors, the highest level of education attained by parents, influence the transition of learners from secondary to tertiary education and beyond?

Data on socioeconomic factors, including gender and the highest level of education attained by adult learners' parents, were examined. However, since a Chi-Square Test of Independence was conducted to determine whether a relationship exists between gender and the level of motivation in Antigua and Barbuda, the researcher would not explore this factor under socio-economic factors. A Chi-Square Test of Independence was used to determine whether a relationship existed between the educational attainment of the adult learners' parents and their feelings about the level of motivation displayed by their parents. The Chi-Square Test of Independence yielded $p=.176$, indicating no relationship between the two variables.

However, according to Bukodietal (2018), there is a link between the two. If the parents of adult learners attained a particular level of education, they would want their offspring to follow the same pathway. According to this research, many adult learners in Antigua and Barbuda were out of school for 1-5 years, were 20-26 years old, and had completed up to secondary education. Also, the findings revealed that the highest educational level attained by the parents of adult learners in Antigua and Barbuda is a master's degree, but this was reported by only a small number of adult learners. Also, there was a marked difference in the level of education attained by parents who held a master's degree and those who held only a certificate. Most adult learners had parents who attained a Certificate level of achievement, and they were mainly very highly motivated to continue learning. Compared with other adult learners, only a few, whose parents attained a master's degree, were very highly motivated. None of the parents of the adult learners in this study in Antigua and Barbuda attained a Ph.D. level of education. However, this contradicts the literature by

Cincinnati et al. (2016), which shows that the higher the level of education attained, the more motivated children of these adults are to participate in adult education and pursue further education at the same level. Furthermore, among the adult learners who completed the questionnaire, 46% reported that their parents had attained a certificate-level education, and these learners were highly motivated.

4.5 Summary

The purpose of this chapter was to evaluate the research findings using the four research questions, which served as a guide for data collection. The research used a mixed-methods approach and a sequential explanatory design to collect quantitative and qualitative data. The questionnaire collected quantitative data, while the semi-structured interview tool and the document analysis form collected qualitative data. The results from both methods were triangulated to arrive at the findings. to collect quantitative and qualitative data. The questionnaire collected quantitative data, while the semi-structured interview tool and the document analysis form collected qualitative data. The results from both methods were triangulated to arrive at the findings. This required careful analysis of the data collected from each research tool to arrive at the findings. Moreover, the results for each research question were evaluated against the findings of the literature review and Malcolm Knowles' andragogical assumptions, which serve as the theoretical framework for this research. Under the theory of andragogy, Knowles (1984) proposed that adult learners are self-directed, engage in experiential learning, are problem-centered, need to know why they are learning what is taught, and are internally motivated. Most of the data collected from the adult learner questionnaire, interviews of adult learners, facilitators, heads of institutions, and Ministry of Education officials were congruent. However, there were slight discrepancies between what was reported by adult learners who were interviewed and by some learners who completed the questionnaire, and by some facilitators.

For research question one, the findings revealed that the study examined the efficiency of adult education programs and the learning preferences of adult learners to ascertain whether the management of these programs considered andragogy in program design, whether it is practiced, and whether adult learners are receptive to the practice of andragogy based on their learning preferences. Examining the efficiency of adult education programs and learners' learning preferences will determine whether adult learners are motivated to continue learning.

Most adult learners who completed the questionnaire reported some motivation to continue their learning, whether to a high or low extent. This therefore indicated some level of efficiency in planning the programs. The level of motivation present was enough to ascertain that some degree of planning went into the programs and that aspects of the andragogical assumptions were present in the teaching and learning environment. Furthermore, only a few adult learners were enthusiastic about their programs. At the same time, fewer than 50% described them as unwelcoming, indicating that more could be done to improve the efficiency of adult education programs. Alternatively, the adult learners who find the program so welcoming may perceive it as such because they are not equipped to engage in student-centered learning. As such, the teaching and learning environment is unsuitable for all adult learners. The findings of this research question were based on information from the questionnaire completed by adult learners, interviews held with adult learners, facilitators, heads of institutions, and Ministry of Education officials, as well as the examination of curricula and gradebooks of adult learners.

Research Question Two examined the factors motivating adult learners to continue learning in Antigua and Barbuda. The evidence revealed that adult learners in Antigua and Barbuda are predominantly extrinsically motivated by financial rewards. Moreover, most adult learners enrolled in adult education programs to improve their standard

of living, not to become self-actualized. Only a very small number of adult learners were motivated to continue learning, and a small number were not considering the idea. In support, less than half of the curricula examined lacked courses that were exciting and motivating, but some aspects of the curricula showed evidence of andragogical assumptions. The research question was answered through a questionnaire of adult learners, interviews with adult learners and facilitators, gradebooks, and curricula.

Further, two Chi-square tests of independence were conducted on the gender of adult learners, the level of motivation to continue learning displayed by adult learners, the highest level of educational attainment of adult learners' parents, and the level of motivation to continue learning espoused by adult learners in Antigua and Barbuda. The results of the Chi-square test of independence indicated that there is no relationship between the two sets of variables. Therefore, the relationship between these two sets of variables does not affect the findings of this research.

Research question three addressed the barriers to participation that adult learners in Antigua and Barbuda face in transitioning into lifelong learning. Before delving into the data, the researcher conducted a Chi-Square Test of Independence to determine whether the variables related to the barriers encountered are associated with how adult learners feel about continuing their learning. The test results revealed no relationship between the barriers encountered and the adult learners' motivation to continue their learning. Therefore, the researcher can rule out barriers affecting adult learners' motivation to transition to lifelong learning as a factor influencing their motivation to continue learning. Data for this research question were gathered from adult learners' questionnaires and interviews with adult learners, facilitators, and heads of institutions.

Based on the findings of this research question, adult learners in Antigua and Barbuda face various barriers. However, the most significant barriers encountered by adult learners who

completed the questionnaire were financial and economic. Children or family responsibilities followed this, inconvenient program scheduling, being too busy at work, no prerequisites, and a lack of employee support. Compared to the findings reported by Facilitators and two heads of institutions, there was convergence in what was reported, as they cited finance as the primary barrier for enrollment in adult education institutions. Based on the findings and on the literature, barriers encountered were not unique to Antigua and Barbuda.

Research Question four focused on the extent to which socioeconomic factors, the highest level of education attained by parents, influence the transition of learners from secondary to tertiary education and beyond. In this regard, two Chi-square tests of independence were conducted to help eliminate factors that could interfere with the relationship between these variables. Data on socioeconomic factors such as gender and motivation to continue learning, as well as the highest level of education attained by adult learners' parents and their motivation to continue learning, were explored. The Chi-Square Test of Independence indicated that there is no association between the two sets of variables. The data used to answer this question were obtained from questionnaires completed by adult learners.

According to this research, many adult learners in Antigua and Barbuda were out of school for 1-5 years, were 20-26 years old, and most had completed up to secondary education, which government-operated institutions offer for free. Also, the findings revealed that the highest educational level attained by the parents of adult learners in Antigua and Barbuda is a master's degree, but this was true for only a small number of adult learners. There was a marked difference in the level of education between parents who attained a master's level of academic achievement and those who only attained a Certificate level. Most adult learners had parents who attained a Certificate of achievement and were highly motivated to continue learning. Compared with other adult learners, only a few, whose parents had attained a master's degree level, were very highly motivated. None of the parents

of the adult learners in this study in Antigua and Barbuda attained a Ph.D. level of education. Adult learners in Antigua and Barbuda are not influenced by their social Origin, as there is no huge disparity between the persons who can become educated in Antigua and Barbuda, since the Education Act (2008) of Antigua and Barbuda provides free and equal access to Education for students between the ages of 10 and 16 years.

The study will conclude with Chapter 5, which highlights the implications, recommendations, and conclusions drawn from the research.

CHAPTER 5: IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

5.0 Introduction

Education is important in alleviating poverty and promoting growth and development in any country. Since education and training for adults cannot necessarily be provided through a formal education system, programs must be developed to facilitate adult learning in Antigua and Barbuda. Additionally, as opined by Motschilnig (2014), adult education and training can contribute to the personal development of adults and generate social and economic benefits for a country. The same applies to adult education programs in Antigua and Barbuda. The retooling of adults, therefore, needs to be at the core of efforts to enhance human capital, especially in the 21st century. Such programs will enable adult learners to gain the relevant skills to compete globally (Charungkaittikul, 2018). The situation in Antigua and Barbuda is no different.

The efficient management of adult education programs is necessary if policymakers and program managers are to determine whether these programs are meeting their objectives of transitioning learners into lifelong learning. Given the importance of adult education to any country and the fact that the researcher has been employed in this sector for over 20 years, Upon making preliminary enquiries, the researcher recognized that no complete data on enrollment, dropout rates, and learner continuity in these programs were forthcoming. The researcher was directed to access data from the World Bank, which was available online from the World Bank's Website up to 2012. This information was inadequate to monitor these programs correctly. The absence of known documentary evidence led the researcher to believe that there is a lack of tracking and documentation of the programs' success, which could hinder improvements. It is important to measure adult education programs in Antigua and Barbuda to avoid speculation and to provide documentary evidence of their management and level of efficiency.

Once completed, this research could also assist Antigua and Barbuda's policymakers in better organizing adult education programs to derive maximum benefits. Likewise, it could serve as a basis for future research on adult education and lifelong learning in Antigua and Barbuda. It could serve as a yardstick for measuring similar programs in the Organization of Eastern Caribbean States (OECS) and beyond. As Motschilnig (2014) asserts, adult education programs can contribute to a country's social and economic development only if they are efficiently managed.

The theory of Andragogy, as posited by Knowles (1984), serves as the theoretical framework for this research. The findings of this research were linked to the theoretical framework of andragogy, which supported and guided the research through requisite literature on efficient management, adult education, and lifelong learning. It underscores andragogical assumptions and highlights how adults learn and how they should be taught. This underscored how the management of these programs could implement best practices to motivate adult learners and thereby transition them into lifelong learning. Moreover, Cross's (1981) theory of barriers and motivation in adult learning was examined to determine how barriers affected adult learners' motivation before and during enrollment in their programs.

This study used a mixed-methods explanatory sequential approach. This approach comprised two phases. Phase 1 encompassed the collection of quantitative data as the collection instrument, followed by phase 2, a qualitative phase (Creswell & Creswell, 2018). The qualitative phase of the design was used to explain the quantitative phase (Creswell & Creswell, 2018). The quantitative phase of the research entailed administering a questionnaire (Appendix F) to 150 adult learners, 50 from each institution, who were randomly selected. The questionnaires were completed face-to-face. Additionally, permission was also sought from 18 adult learners, 18 facilitators, three heads of institutions, and two Ministry of Education officials to participate in the qualitative phase of this research, which comprised interviews

using interview schedules (See Appendices B, C, D, and E). In addition, the gradebooks for the curricula and those of three students from each institution were conducted with the permission of the heads of the three institutions (See Appendix F). This allowed for validation of results.

Furthermore, ethical standards were observed during this research. Simelane-Mnisi (2018) asserts that ethical standards are essential in research, particularly when involving human and animal engagement. Accordingly, the researcher adhered to ethical principles throughout this research (Ngulube, 2015). The researcher developed an ethical research strategy in line with Ngulube's (2015) recommendation to protect research participants (Bryman & Bell, 2015). The ethical research strategy took into consideration the type of research, the topic and purpose of the research, as well as the procedures to be followed to ensure confidentiality and the extent to which participants can participate in the research (Depoy & Gitlin, 2016). As Bryman & Bell (2015) asserted, the researcher ensured that participants were not exposed to harm and were always treated with respect. During this study, the researcher assigned alphanumeric codes to the participants, who was the only individual able to match the codes to the participants' names. Likewise, personal information that could identify participants was not collected, as all participants' anonymity was guaranteed. According to Bos (2020), anonymity protects the source of collected information from disclosure, while confidentiality ensures that the information is not shared without the participant's permission.

Before data collection, the researcher sought and gained permission from the ethical review committee affiliated with the researcher's institution, the Unicaf Research Ethics Committee (UREC). Upon receiving UREC's permission, a gatekeeper letter was issued to the Heads of Institutions participating in the research. The letter outlined the assistance sought from the Heads of Institutions. Consent was also sought from all participants using consent

forms (See Appendix B), which were signed after the researcher explained the research in detail.

The main aim of this chapter is to discuss the implications of the findings of this research as they relate to the efficient management of adult education programs in the three main adult education institutions in Antigua and Barbuda, which existed at the time of the research. It focuses on the implications of how the management of these programs is instrumental in motivating adult learners to transition into lifelong learning. This has implications for the teaching and learning environment and the curricula used. Moreover, this chapter will make recommendations on how to improve the efficiency of the programs through more awareness and the implementation of more andragogical principles in the curricula and teaching and learning environment. Additionally, the findings will recommend strategies to address barriers encountered by adult learners and to increase their motivation to continue learning.

Furthermore, the findings of this research could be used in other Eastern Caribbean States that may have similar experiences to Antigua and Barbuda in the Management of their adult education programs. It can also contribute to the existing literature on the nature of management of adult education on the 108-square-mile island of Antigua and Barbuda, as it may offer a slightly different perspective. Lastly, the chapter addresses how to apply the findings of this research to future initiatives for the efficient management of adult education and lifelong learning.

5.1 Implications

The research aimed to carry out an investigation on the management of adult education programs in three tertiary institutions in Antigua and Barbuda and its effect on lifelong learning. The research revealed the extent to which adult education programs are adequately managed and continue to support learners' transition to lifelong learning. Also, in keeping with

the theoretical framework of andragogy, the research sought to determine the extent to which the management of these programs incorporates Knowles' (1984) andragogical assumptions into the curricula, learning environments, and delivery methods. The researcher wishes to center the discussion of the study's implications on the research's findings, the historical literature on managing adult education programs, and how adult learners perform best, as proposed by Knowles's (1980) theory of andragogy.

Further, the discussion of the study's implications will highlight age-old literature on the barriers adult learners encounter, as posited by Cross (1981) and other theorists. Such barriers could prevent the performance of adult learners and need to be considered by the management of these programs. Furthermore, all aspects of the adult education programs were examined to understand the implications of these programs if not efficiently managed. The status of the adult education programs and their effect on lifelong learning was revealed in this study. Knowledge of this will help Government policymakers, heads of institutions, and Ministry of Education officials determine whether the programs are efficiently managed and what is required to keep adult learners motivated and interested in continuously upgrading their skills.

How adult education programs are managed is essential, as individual aspects of the program, including the management style, will have implications for adult learners. The implications of this research's findings, guided by the four research questions, will be highlighted under each research question below.

Research Question 1:

How equipped are the adult education programs in Antigua and Barbuda to transition learners into lifelong learning?

This research question was answered using data from the adult learning questionnaire administered to 150 adult learners, 147 of whom completed it. Since this research focused on

programs to determine whether they are efficiently managed, produce learners who engage in lifelong learning, and will be productive citizens of Antigua and Barbuda, the researcher felt it was essential to highlight the factors that would make these programs efficient, based on the literature.

Adult learners' engagement in the learning environment can motivate them to continue learning. It is also critical that managers pay attention to how adults learn, as purported by Knowles's (1984) andragogical assumptions, which should guide every facet of their functions and facilitate efficiency in adult education programs. Using andragogical assumptions as a base, the researcher examined adult learners' learning preferences and their perceptions of the efficiency of managing the adult learning program.

The results of the questionnaire revealed signs of andragogy, based on the responses of adult learners and on the perspectives of adult learners encountered in their programs and of facilitators interviewed. Approximately the same percentage range of adult learners, between 44 and 46 percent, believed that the programs are appropriately managed to a high extent. Still, the percentage of adults who felt that they were managed correctly to a very extent was minimal. Moreover, the majority of adult learners do not believe that the programs are structured to motivate them to continue learning. This is supported by the Heads of Institutions, 67%.

Further examination of the curricula revealed evidence of andragogical use. In contrast, less than 50% of curricula representing 44% showed no evidence of student-centredness, as they mainly used PowerPoint with minimal discussion.

Also, 78% of the items in the curricula do not indicate that adults play a significant role in their learning. However, 56% of the items in the curricula appear to motivate learners and equip them for life. Alternatively, 56% of learners' gradebooks showed no sign of mastery of what was taught.

For this research question, the findings revealed that adult learners are perhaps highly motivated to learn, but very few learners are motivated to a very high extent. However, this depends on the quality of the curricula and instructions, as well as the practices employed by the institutions' management (Sogunro, 2015). Furthermore, the quality of the teaching and learning environment is significant to the efficiency with which adult education programs are managed. As Poudel et al. (2020) assert in the literature, this has consequences for the types of events institutions plan and the institutional techniques they use, which are outside the span of control of learners.

The literature also revealed that how adult learners feel about managing programs has implications for their motivation to learn. If motivation is low, very little learning will occur (Wlodkowski & Ginsberg, 2017). This could affect their transition into lifelong learning. The study's results also reported that most adult learners felt the programs were efficiently managed. However, 13% of the learners believed the programs were managed with a high level of efficiency. Furthermore, some adult learners feel that the programs are managed efficiently but not to a high degree. In such cases, adult learners are not satisfied with their learning to a high extent, and this could affect how they perceive the programs. The fact that such a large percentage of learners felt that the programs were managed correctly either to a minimal extent or a high extent could account for most learners' being in favour of student-centered learning. However, some adult learners do not believe that the programs are appropriately managed to a very high extent and may prefer the teacher to be the center of their learning, as advocated by Jarvis (2006). While the theory of andragogy has implications for how adults learn and are motivated, managers of adult education institutions should be mindful that it does not allow for a distinction between how adults and children learn (El-Amin, 2020). However, to ensure efficient management of the programs, a balance must be struck to accommodate different types of learners.

As such, management of adult education institutions in Antigua and Barbuda needs to focus on adult learners' learning preferences. As Knowles (1984) postulated, adult learners can be motivated to learn by linking new materials to their past experiences. As such, the extent to which programs utilize discussions and shared experiences throughout the learning process is significant and should be considered when constructing curricula. Although a high percentage of the facilitators interviewed used these methods in the learning process, they were not used to a very high extent. Only 27% of the facilitators used these methods. Moreover, there is a contrast in what was reported by facilitators and adult learners. While half of the adult learners interviewed reported that the programs are not welcoming, the same number reported that the courses are adequate only to some extent.

Although the results do not clearly indicate a lack of interest or motivation to continue learning, managers of adult education programs must consider every type of adult learners when planning their programs. In support, research by Gravani (2012, as cited in Desta, 2022) stressed the importance of selecting suitable curricula, assessments, and instructional methods in line with the andragogical assumptions posited by Knowles (1984). As indicated by the results, fewer than 50% of the adult learners rated their experience in the programs as good and felt the programs were well managed. As reported in the results, most adult learners felt that the subjects in their curricula adequately facilitated their continued learning, but not to a very high extent. This could account for adult learners' facilitators, heads of institutions, and Ministry of Education officials sharing different perspectives on managing the programs.

The adult learners in Antigua and Barbuda could comprise learners who learn best in a student-centered environment and those who prefer a teacher-centered environment. Likewise, adult learners' expectations may be influenced by their maturity level. It is therefore expected that as individuals grow into adulthood, they assume more responsibilities (Johnson et al., 2016). Nonetheless, this has not been demonstrated recently, as younger individuals

who are not yet adults may be saddled with more adult responsibilities (Johnson et al., 2016). This could also suggest that some adult learners in Antigua and Barbuda do not think more maturely, and it could contravene the andragogical assumptions posited by Knowles (1984). This could account for the controversial results regarding the programs' efficiency in Antigua and Barbuda.

To examine the program's efficiency from a different perspective, Ministry of Education Officials were interviewed and felt that the adult education programs were well structured to serve the adult population. The literature did not prove this, as no significant data exists on adult education in Antigua and Barbuda. It is non-existent in the Education Act of Antigua and Barbuda, beyond a mere mention, and there is no proper structure for the governance and forward planning of adult education. This study will serve as the basis for similar future research in Antigua and Barbuda and, perhaps, further afield.

Moreover, adult learners' grade books and curricula were examined using the gradebook to determine further the efficiency of managing the programs by examining outcomes. An examination of the grade books revealed that less than half showed no evidence of student-centeredness since most PowerPoint presentations, minimal discussion, or other activity-based techniques were used in the learning process. Furthermore, more than half of the curricula examined demonstrated that adults play a vital role in learning. There was strong evidence of instructors' use of PowerPoint presentations and note-taking. However, despite this high level of student-centeredness, using real-life scenarios embedded in PowerPoint presentations could motivate adult learners, as evidenced by more than half of the content analyzed.

Data from the grade book also showed that more than half of the adult learners mastered the material. Moreover, as revealed by the grade book, it cannot be concluded that

adult learners' interest in the courses was generally lacking, as more than 70% of entries indicated that they attended most of their classes.

Considering the above factors, adult education programs in Antigua and Barbuda must address not only the content imparted to students. Instead, they should focus on all aspects of their learning, including the mode of delivery and assessments used in the courses, to make the adult learners' experience meaningful so they will want to continue learning.

The following section will answer what motivates adult learners to continue learning, which forms the basis of the second research question.

Research Question 2:

What factors motivate adult learners to continue learning in Antigua and Barbuda?

The use of andragogy in the curricula suggests that adult learners are motivated based on Knowles (1984) assumptions. However, they are not motivated to a very high extent. Only 47% of learners are motivated to a very high extent. Additionally, this motivation could result from the use of andragogical assumptions in the curricula and the type and mode of delivery of the courses being taught. Furthermore, the findings revealed that 44% of adult learners plan to continue their education, suggesting that they could be motivated intrinsically or extrinsically. Worthy of note is that the evidence collected from adult learners revealed that the majority enrolled for an improved standard of living, while the minority enrolled for personal development, which could be either extrinsic or intrinsic.

Additionally, 50% of the facilitators cited financial benefits for adult learners' enrollment, while 33% cited personal development as a motivator. Overall, 96% of adult learners are motivated to continue learning to some extent, either intrinsically or extrinsically. Additionally, the evidence shows that adult learners are generally satisfied with the course and are motivated to continue learning for various reasons.

To answer this research question, the researcher conducted hypothesis testing to determine the factors influencing adult learners' feelings about continuing their learning. Some factors related to this study include gender and the highest educational level attained by the parents of these adult learners.

Based on the results of the Chi-square test of independence for gender and the highest level of educational attainment of adult learners' parents, and on adult learners' motivation to continue learning, there is no significant relationship between gender and adult learners' views of their motivation to continue learning. Additionally, based on the research by Chung and Chang (2017), the results of the Chi-Square Test of independence support the literature's findings that there is no association between gender and motivation to continue learning.

The hypothesis regarding the highest level of educational attainment of adult learners' parents and the views on motivation held by these learners was also rejected. This runs counter to most of the literature, which indicates that parents' educational attainment strongly influences their children's educational attainment (Benner et al., 2016).

The Chi-square test of independence also shows that factors such as gender are not associated with their views on motivation to continue learning. Therefore, among 18 adult learners interviewed, 89% reported enrolling to improve their standard of living. In contrast, 72% of adult learners cited better job opportunities, higher pay, and improved lifestyles as reasons for enrolling. According to the results, most adult learners in Antigua and Barbuda are motivated by external factors (Knowles et al., 2014), while only a tiny percentage is driven by intrinsic factors such as improving their lifestyle, achieving job satisfaction, and self-esteem (Knowles et al., 2014). However, based on the questionnaire results, most adult learners are motivated to continue learning, with 86% enthusiastic about their learning.

Although most adult learners in Antigua and Barbuda are enthusiastic about their learning and express motivation to continue learning, their motivation appears to be driven

by external stimuli, such as increased pay. Once these stimuli are fulfilled, the adult learners might not be motivated to continue learning. Therefore, the management of adult education programs needs to examine factors that could motivate learners intrinsically and incorporate them into the programs. This finding of most adult learners being extrinsically motivated is not necessarily in keeping with the literature on adult learners who enroll in adult education programs, as Knowles (1980), in his assumption, describes these learners as intrinsically motivated.

According to the literature, intrinsically motivated adult learners often engage in activities without external motivators (Morris et al., 2022). Despite the intangible nature of motivation, a positive correlation between adult learning and motivation has been posited by Brookfield (1986) and Knowles et al. (2015). The greater their motivation, the more they would be desirous of continuing their learning, and the more they would incentivize and be able to improve their own and their families' economic lives.

The managers of adult education programs in Antigua and Barbuda must ensure that adult learners enjoy their learning and are motivated to continue learning. This would necessitate careful planning of the programs, including curricula, modes of course delivery, and training of individuals involved in the entire process. Support services would be needed to ensure that these programs are sustained and that adult learners have the enabling environment to attain their objectives (Comings, 2023) and continue as lifelong learners.

In response to Research Question 3, the researcher will examine the barriers to participation in these adult education programs.

Research Question 3. What barriers to participation exist for adult learners in Antigua to transition into lifelong learning?

Furthermore, the results for adult learners who completed the questionnaire revealed that most learners in Antigua and Barbuda encountered situational barriers associated with

children or family responsibilities, as highlighted by Cross (1981). Situational barriers in Antigua and Barbuda primarily affect female learners. Further as highlighted by Sheldon (2021), such barriers could prevent adult learners from continuing with their studies as their family lives could be disrupted. Additionally, 69.4% of adult learners do not have the prerequisites to enroll in the programs or possess skills that decline over time due to lack of use. Mackeracher et al. (2006) categorized these skills as academic barriers. Moreover, as indicated by Sheldon (2021) the policies and procedures set by institutions for enrollment could affect adult learners ability to enroll in the adult education programs and could also be looked at as academic barriers.

The literature on barriers explored in this research supports the research findings in Antigua and Barbuda. The research highlights that significant barriers confronting adult learners desirous of enrolling in adult education programs include life events, parenting responsibilities, socioeconomic status, and prerequisite education (Kimmel et al., 2016). Since these barriers can make adult learners' studies very challenging, it is incumbent on the managers of these programs to carefully evaluate them, determine how to bridge the existing gaps, and put measures in place to do so. Tracy-Mumford (as cited in Comings, 2023) argued that to ensure adult learners remain persistent in their programs of study, a committee should be established to monitor their progress. Such a committee should comprise adult learners and facilitators. It would be responsible for how best to serve adult learners to ensure their retention in the programs Tracy- Mumford, 1994 (as cited in Comings, 2023).

As reported, to counter parenting events or family responsibilities, managers of these institutions could offer child services at minimal cost to parents enrolled in these programs for a period, and counselling support to these adult learners.

Socioeconomic factors were also significant in this research, which answered Research question # 4.

Research Question 4:

To what extent do socioeconomic factors influence the transition of learners from secondary to tertiary education and beyond?

This will assist the researcher in determining how these factors affect the management of adult education programs and the transition of adult learners from secondary to tertiary education and beyond.

The pathway adult learners take is shaped by the available opportunities and the constraints imposed by their cultural background and social structures (Desjardins and Warnke, 2012). The researcher knew many factors could influence adult learners' transition to continuous learning. One such factor examined by the researcher is the educational level attained by the learners' parents. The researcher conducted a Chi-square test of independence to examine the influence, if any, of the highest academic level attained by parents of adult learners on their motivation to continue learning. The Chi-Square Test of Independence results, which revealed no association between the hypothesis and the literature, are not in keeping with this. As Setiawan (2020) asserted, parents' educational level can positively influence students' learning. As further argued by Bukodi and Goldthorpe (2018), the educational level attained by the parents of adult learners is an indicator of learners' educational pathways. Bukodi and Goldthorpe (2018) further asserted that, depending on their parents' educational level, these learners' children can be guided along similar pathways. In addition to the Chi-Square Tests conducted, the researcher examined the data to determine whether, by chance, there is an effect on adult learners' transitions through the secondary and tertiary education systems in Antigua and Barbuda. Based on data on the highest educational level attained by the parents of adult learners in Antigua and Barbuda, none of the parents attained a Ph.D. level of education. The highest level of qualification among the parents of most adult learners is a master's degree. Additionally, 14 of 16 adult learners were either slightly or highly motivated.

The other adult learners were not motivated at all and among adult learners in Antigua and Barbuda, those who were slightly or highly motivated had parents who had only attained a Certificate level of education. This could account for the fact that adult learners in Antigua and Barbuda appear not to be highly motivated, as motivation is not linked to parents' achievements. This contradicts the literature to some extent, which suggests that the higher the level of education attained, the more motivated individuals are to participate in adult education (Cincinnati et al., 2016). In Antigua and Barbuda, some adult learners are highly motivated, even though their parents attained a low level of education.

Worthy of note, however, is the fact that primary and secondary education is free and compulsory in Antigua and Barbuda (Education Act of Antigua, 2008). For primary students, the age range for free education is 5 to 11 years, and for secondary students, it is 12 to 16. This reduces the incidence of social origin in education at the secondary level and in continuing education at the tertiary level.

5.1.1 Delimitations of the study

Due to time constraints and unforeseen circumstances, the researcher could collect data on adult learners only during the module period. However, although the study is valid, it could have a broader reach in terms of application. Also, it would have been more insightful if data on the management of the adult education programs focused to a greater extent on the output, that is, the adult learners' output and how they traversed their pathway after leaving the adult education institutions.

Another delimitation established by the researcher is that adult learners should be between the ages of 20 and 40 since they are deemed more mature at age 20. In addition, the facilitators interviewed were employed for between 1 and 5 years since the researcher felt that the selected facilitators should possess in-depth knowledge of the programs.

When using several data sources, the researcher could experience conflict in the data. This could result from questionnaires, interviews, gradebook, or triangulation, although triangulation should address this issue.

5.1.2 Limitations of the study

The study focused on the efficiency of the management of adult education institutions in Antigua and Barbuda and the transitioning of learners into lifelong learning. The study would have been even more meaningful if adult learners had been tracked from secondary to tertiary education and beyond. This could assist in verifying their pathway over time, despite what is revealed in the research. Also, the researcher considers it appropriate to undertake deeper, broader research on adult learners, dating back to their mid-secondary years in school, to compare their motivational levels before and after entering adult education institutions. This would give the researcher a clearer perspective on their motivations and whether they changed over time. Furthermore, the study could be deeper if extended to other Caribbean Islands, allowing comparisons between the adult education programs in Antigua and Barbuda and those of these other islands. Additionally, since Antigua and Barbuda is a former British Colony, a comparative study could be conducted between Antigua and Barbuda and the United Kingdom to determine whether there is a difference in the ideologies of adult learners residing in differing contexts. Another limitation of the study could arise from biases emanating from social desirability as articulated by Bergen and Labonté (2020). This is where reporting on the part of the adult learners, facilitators, heads of institutions, and Ministry of Education Officials could be presented to reflect what is deemed to be the acceptable norm instead of reality. Also, when given the questionnaire to complete, the participants may have trouble aligning their lived experiences with the particular options presented to them in the questionnaire. Social desirability bias could occur despite the researcher's attempt to minimize bias. Further, since interviewees were selected using purposive sampling, this could affect any generalizations

being made about the population. With the use of purposive selection of persons for the interview, the individuals are basing their input on their own experiences and not necessarily that of the entire population. Added to this, the interviews that were conducted with adult learners, facilitators, managers of adult education programs, and Ministry of Education officials could be subject to personal biases, as these interviewees can only report phenomena from their perspectives (Patton, 2022).

As it relates to the gradebook of documents carried out by the researcher, who tried to carry out fair and balanced research, the possibility exists that the documents examined, although randomly selected, could be subject to measurement errors or facilitator biases (Patton, 2022). According to Patton (2022), this could reflect a selective reality of the adult education programs that are being managed.

Additionally, since the researcher manually coded the responses from the interview, although the researcher made every attempt to avoid biases, there is a slight possibility that some degree of subjectivity or bias could occur.

5.2. Recommendations for application

Countries that wish to alleviate poverty and promote growth and development need to invest in education. Adult education and training should be promoted, as they cannot be integrated into the formal education structure in Antigua and Barbuda. Hence, these programs are developed to assist adult learners. Moreover, as asserted by Motschilnig (2014), adult education is important because it contributes to the economic development of countries and the personal development of adults enrolled in these programs; Antigua and Barbuda is no exception. Attention, therefore, needs to be paid to adult education programs in Antigua and Barbuda, as these programs play a vital role in retooling individuals in the 21st century and enhancing human capital.

The researcher deems the efficient management of adult education programs in Antigua and Barbuda to be extremely important. These programs must be managed efficiently to equip individuals with the requisite skills and transition them to lifelong learners. They could also produce individuals who will contribute positively to the citizenry of Antigua and Barbuda.

This research was conducted to investigate the efficiency of adult education programs at three tertiary institutions in Antigua and Barbuda and their impact on the transitioning of learners to continue with their learning. The views of the Heads of Institutions, the adult learners, the facilitators, and Ministry of Education officials were acquired for this research by conducting mixed methods sequential explanatory research using questionnaires with adult learners and conducting interviews with a purposive sample of adult learners, facilitators, the managers of adult education institutions and the Ministry of Education officials. Completing this research will provide documentary evidence of the management of these programs so that policymakers can make informed decisions about their appropriateness. Therefore, it is incumbent on policymakers to ensure that the results of this research are used to establish a framework for managing adult education programs in Antigua and Barbuda. This will also ensure that the beneficiaries of these programs, the adult learners, transition to continuous learning. Such learning should equip adult learners to be model citizens and individuals who can contribute to any country's social and economic development (Charungkaittikul, 2018).

The outcome of this study has implications for how the programs are managed, which will affect the curricula and how teaching and learning take place, and this, in turn, could stimulate further learning among adult learners (Motschilnig et al., 2012). Although the adult education institutions appear to function properly, the data revealed some inadequacies in all the tertiary adult learning institutions. Based on feedback from the adult learners, facilitators, and managers of these institutions, there appear to be issues with the curricula, teaching, and learning and the motivation of the learners seems only to be extrinsically driven compared to

being intrinsically motivated. As ideal as the benefits that can be derived from being intrinsically motivated, most adult learners in Antigua and Barbuda are motivated by external stimuli such as money. This could determine the quality of their learning and the depth of learning. Furthermore, facilitators engaged in adult learning institutions must be trained to deal with this type of learner to ensure learning occurs.

The recommendations of the researcher based on the findings are outlined as follows:

5.2.1 *Policymakers*

The adult education programs are a mere mention in the Education Act of Antigua and Barbuda (2008). During this study, the researcher has not identified any framework for how these adult education programs are established while conducting research. As such, this lends itself to the programs being managed without any measurable benchmarks or full understanding by the beneficiaries of these programs as to how the programs are doing. These stakeholders are adult learners, corporate institutions, parents, and other interested stakeholders. Moreover, the program's rationale from a country-wide perspective needs to be understood by all the stakeholders. Therefore, the researcher recommends that the government develop a policy framework that considers the assumptions of andragogy based on Knowles's (1984) work on adult learners and the concept of lifelong learning in Antigua and Barbuda. However, this policy framework must also cater to different types of adult learners. As posited by Jarvis (2006), some adult learners do not learn differently from children. In addition, the researcher recommends establishing a framework for adult education management in Antigua and Barbuda, which will be highlighted below.

5.2.2 *Management of Institutions*

The study's findings revealed some controversy about how efficiently the programs are being managed and whether they are transitioning learners to lifelong learning. Generally, approximately half of the adult learners believe that the programs are properly managed, but

this varies based on whether the perspective of adult learners, facilitators, managers of institutions, or Ministry of Education Officials are expressing their views on the matter. All the individuals who completed the questionnaire or were interviewed about the programs felt that some restructuring of the programs should be undertaken. There is also evidence of using the andragogical assumptions, as Knowles (1984) posited.

It is also worth noting that although the adult learners show evidence of being motivated, this was not so to a very high extent. This suggests that adult learners are not fully satisfied with their programs and could discontinue their learning anytime. As such, the researcher recommends rectifying the programs' weaknesses, beginning with establishing a framework governing the functioning of all adult education institutions in Antigua and Barbuda. It suggests that the controversy about the programs could result of facilitators, adult learners 'heads of institutions, and even Ministry of Education Officials not being completely au fait and clear on the goals and purpose of the adult education programs. Therefore, the researcher is recommending that all the above individuals get involved in a roundtable discussion to examine the curricula and the teaching and learning environment of the three tertiary institutions to ensure that all stakeholders agree on how these programs are to be managed and to develop policies for efficient management. of these institutions. These policies would guide how these institutions function daily. One such policy is that an evaluation of all three tertiary institutions be undertaken every three months by an appointed evaluator who is an expert in the field of education. Moreover, instead of speculating about how well the institutions are doing, benchmarks can be established to uphold standards. Also, once these policies are created, the researcher recommends that an island-wide campaign or dialogue be undertaken about the true benefits that can be derived from adult education institutions in Antigua and Barbuda rather than adult learners just enrolling to improve themselves

financially. The conversation could encompass how adult education may benefit the local institutions and Antigua and Barbuda in general.

The researcher is also recommending that a manual governing all adult educational institutions be produced and tweaked to meet the needs of individual institutions. This manual will have general information governing adult education institutions in Antigua and Barbuda. Coupled with this, numerical data on enrollment, drop-out rates, and time to completion of curricula of adult learners need to be produced and monitored to ensure that the institutions are being efficiently managed. Added to this tracking of adult learners could be undertaken to establish if they are motivated to continue learning since the research results highlighted that most adult learners are motivated extrinsically.

5.2.4 Training of Staff

The data suggests that some facilitators use teacher-centered approaches to teaching and learning. The researcher recommends that facilitators and managers be trained to deal with adult learners and that managers ensure that all components of the teaching-learning environment are geared towards maximizing the learners' output.

5.2.4.1 Training of Facilitators. If adult learners enrolled in adult education programs are to perform optimally and motivate adult learners to think critically and independently, it is important that the facilitators employed in these programs possess the necessary skills to be effective. Lack of effectiveness in the teaching and learning environment could result in attrition of the learners. As such, facilitators have an important role as they are in direct contact with adult learners and should be able to determine the deficiencies in the learning environment. In particular, the facilitators should be able to deal with the individual learning preferences of adult learners. Facilitators not being able to deal with these learning preferences could possibly account for the fact that only 86% of adult learners are enthusiastic about their learning. However, only 47% of learners were motivated at a high level. Had attention been

paid to the different types of learning preferences, adult learners would be more highly motivated and enthusiastic about their learning. The researcher recommends that all facilitators be trained in andragogy, since the way courses are delivered, and testing is administered, could negatively affect adult learners if not done in keeping with their learning preferences. Perhaps this percentage could have been greater if all facilitators were trained to deal with adult learners. The researcher further recommends that facilitators be adequately trained to deal with adult learners who are not self-directed. The research shows that not all learners can perform in a student-centered environment, and facilitators also need to know how to support these learners. Furthermore, facilitators should be trained to encourage democratization while facilitating classes with adult learners. This is necessary for adult learners to feel respected in the learning environment; their views on situations must also be respected.

5.2.4.2 Management Training. From the research results, more could be done by heads of institutions as it relates to monitoring curricula, ensuring that programs, when designed, consider the needs of adult learners and that teaching and learning are in keeping with andragogical assumptions. The researcher therefore recommends that the managers of these programs be trained in management to provide them with a thorough understanding of the adult education institutions they have been recruited to manage. Such training will enable them to better understand their institutions and to deal with the varying situations they may encounter (Mariyavas & Saravanakumar, 2022). They must be trained in the basic principles of management, such as planning, directing, organizing, and controlling, and know what each function entails Biniecki & Schmidt (2020), so that they can be implemented in a coordinated way. Additionally, the management principles when applied by the managers of adult education programs should take into consideration the andragogical assumptions and the fact that, for the most part, adults learn differently from children (Knowles, 1984). If, however, there are adult learners who learn like children (El-Amin, 2020), the training received by the

management of these institutions should equip them with the knowledge and skills to develop contingency plans that address the needs of these adult learners. Moreover, the efficiency of managing adult education programs would also encompass the adequacy of the programs in catering to the needs of adult learners.

Despite 99% of the adult learners experiencing some form of andragogy being practiced, two heads of institutions recommended that the curriculum needs to be broadened, and one head of institution suggested that the curriculum needs to be more student-centered. Upon examination of the curricula of these three tertiary institutions, the researcher did not find much evidence of the curricula being student-centered in any of the three tertiary institutions, but this did not seem to affect the performance of the adult learners as their grade books were averaged. Also, there was no indication of these adult learners being motivated to continue with their learning.

5.2.5 Support services for adult learners

The data revealed that adult learners were motivated mainly by financial needs and the desire to improve their jobs. Likewise, although some adult learners are motivated, not enough adult learners feel motivated, and their motivation levels are not high enough for the researcher to ignore. Therefore, the researcher finds it necessary to make recommendations on how the level of motivation can be improved and to ensure that future learners who enroll in these programs feel fully motivated to continue their studies. This issue, therefore, needs to be addressed by the management of adult education institutions. Also, the research revealed that adult learners are confronted with several barriers which are highlighted below with recommendations for their reduction or elimination. This would benefit adult learners who enroll in these institutions in the future. The researcher recommends the following to reduce these gaps in learning.

5.2.5.1 Support services dealing with motivation. In response to the motivation of adult learners, there is a correlation between adult learners not being motivated and their chances of success in adult education programs which could lead to drop-out (Sogunro, 2015). If the managers of adult education programs wish to minimize the barriers that prevent adult learners from learning, the adult learners need to be kept motivated (Brophy, 2010). However, based on the literature as asserted by Günen and Vural (2023), adult learners are extrinsically motivated by their desire to improve their jobs and careers and to self-develop, such as becoming qualified in a particular field of endeavor. Moreover, adult learners are motivated because they are generally of the view that financial rewards are imminent if they complete their program (Wlodkowski et al., 2017). The research revealed that most adult learners, representing 99%, had parents who only attained a certificate, but they were motivated to continue learning. This represented 86% of the adult learners. This runs contrary to the literature on adult learners' motivation by Benner et al., (2016), who assert that the higher the level of educational attainment by the parents of adult learners, the greater their motivation to learn. The researcher is of the view that more needs to be done as the adult learners were given a scale of Likert scale ranging from 1 to 5 where 1 showed no motivation and 5 a very high level of motivation. The fact that only 47% of the adult learners were motivated to a very high extent and only 47% of the adult learners were motivated to a high extent suggests that more needs to be done to motivate the learners. Of this number, most of the adult learners' motivation ranged from very little to a high extent.

Considering this, the researcher recommends that, before enrolling in these programs, the management of these programs embark on a rigorous program to educate adult learners on the benefits of enrolling in adult education programs to change their viewpoint and, hopefully, enable them to be more intrinsically motivated rather than extrinsically motivated. This will include interactions with counselors, academic advisers, and past adult learners. It would also

require the establishment of seminars and other programs to make adult learners aware of their roles as learners. Perhaps discussions can be held with the student body to ascertain what can be done to make the learners feel the need to be self-actualized rather than embark on learning for such factors as higher pay or promotion. The research further revealed that adult learners in Antigua and Barbuda do not follow the trend as with other countries cited in the literature, as it was established that the gender of the adult learners' and the highest level of education attained by their parents do not influence the motivation of adult learners in Antigua and Barbuda. It will also be useful if the motivation of adult learners entering the learning institutions is ascertained as this information would prove to be useful to the managers of the institutions and the facilitators. Knowing why adult learners engage in learning would equip facilitators to use relevant techniques to inspire learners to enjoy their learning and continue learning (Aljohani & Alajlan, 2020). Moreover, to get a better idea of the motivation of learners, the researcher recommends that more tracking needs to be done to determine their level of motivation before entering the adult education programs as well as when they transition from the programs. It is only then that the true effects of the program can be determined.

The barriers encountered by adult learners in Antigua and Barbuda will also be addressed.

5.2.5.2 Support Services dealing with Barriers encountered. In addition to examining the motivation of adult learners, the research also investigated the barriers they encounter. The data collected revealed no association between the barriers encountered and the views of motivation of adult learners to continue. Furthermore, some adult learners encounter barriers described by Potter and Alderman (1992, as cited in Roosmaa and Saar, 2011) as academic barriers, which prevent them from possessing the prerequisites necessary to enroll in programs. Further, the most significant barrier encountered by adult learners is dispositional barriers, as it was identified by Cross (1981). The barriers were identified by adult learners,

facilitators and heads of Institutions as financial and economic barriers. For the majority of adult learners this barrier was followed by children and family responsibilities. In regard to academic barriers, the researcher recommends implementing transition programs to ensure that adult learners transitioning from secondary education, or learning that took place before this, are prepared for learning (Kallison, 2017).

Following the above, the researcher recommends that remedial programs be built into the mainstream curricula of adult education programs, to enable those learners who are not quite at the required level to come up to the level of the curricula. It is also recommended that facilitators be specially trained to deal with adult learners who are a part of the remedial programs as well as those who matriculate into the general stream. The other adult learners who encounter situational barriers require a support system before and during enrollment to assist them in dealing with their barriers. Also, based on what was posited by most of the facilitators that some adult learners lack course management skills, the researcher is of the view that these learners should be sent to Academic advisers. However, for the problem to be addressed at an early stage, these adult learners need to be carefully monitored and identified early.

If as indicated by the results of the study, some adult learners encounter financial barriers, financial assistance should be in place either through the learning institutions or a donor agency to tackle the problem early. In addition, psychological support should also be offered to all adult learners who require this type of support. Based on a Chi-square test of independence undertaken, no correlation exists between the adult learners' barriers encountered and the level of motivation of adult learners. Therefore, the barriers encountered did not affect adult learners' motivation level.

It is also incumbent on the managers of adult education programs to establish a monitoring committee comprising facilitators and adult learners to ensure they know who is

experiencing serious barriers, determine potential dropouts from the programs and offer intervention as necessary. This committee would ensure adult learners' retention into the programs.

In addition to the barriers encountered, adult learners are often affected by socioeconomic factors, such as the highest level of education attained by their parents and their influence on their motivation to continue learning. The research results show no correlation between the highest level of education attained by the parents of adult learners in Antigua and Barbuda and their transition from secondary education to tertiary education and beyond. Although it is usually the case that parents who have attained a high level of education would encourage their children to become educated (Bukodi & Goldthorpe, 2018), the results revealed that most of the parents of adult learners had attained a Certificate level of education. However, adult learners are still very motivated to continue learning. Since Antigua and Barbuda is a 108-square-mile island, the socio-economic factors such as poverty, age, gender, and social origin of parents do not affect the polarization of education to a large extent. At the preschool, primary, and secondary levels of education, the government provides free access. Since all students must attend school until the age of 16, access to education is open and free. Notwithstanding this, there are issues with adult learners being unable to afford proper nutrition because they must work to pay for their tertiary education.

The researcher recommends that the institution, at the head, implement broad, all-inclusive policies, establish a feeding program, or offer financial assistance to adult learners in need. Further, the researcher recommends that adult education campaigns equip adult learners with adequate information to make informed decisions about their future. By so doing the adult learners would be able to enjoy their learning and perform at their optimal level.

5.3 Recommendations for future research

Adult education is significant to countries worldwide, as it is believed that investment in this sector will bring significant benefits to countries' social and economic development (UNESCO, 2016). As such, individuals' role as citizens will be productive, as their natural and social environment will be developed. Against this framework, the significance of an efficient adult education program in Antigua and Barbuda is paramount. The aim of this mixed-methods sequential explanatory research is to ascertain how well the adult education programs in three adult education institutions in Antigua and Barbuda are managed and their effect on lifelong learning. The undertaking of this research will provide documentary evidence of the success of these programs, if they have met their objectives. This research can serve as a guide for the management of adult education institutions in Antigua and Barbuda and would improve the lives of the citizenry.

No such known research has been undertaken in Antigua and Barbuda before, nor has a similar study been conducted in the other Eastern Caribbean States (OECS). However, Bird (1975) attempted to write about the state of adult education in the Caribbean some four decades ago, with emphasis on the empowerment of women. Since then, UNESCO has repeatedly mentioned adult education, yet most member governments in the Caribbean Community and Common Market (CARICOM) States and the OECS have made no serious attempts to develop it properly. As such, the researcher will seize the opportunity to explore and contribute to the existing body of research on adult education. The researcher identified several areas for replicating or broadening this mixed-methods, sequential, explanatory research and offered recommendations that could be significant for future research.

The research used andragogy as the theoretical framework to determine whether students' learning was effective and whether management planned its curricula to align with how adults learn best. As such, the research focused on how adult learners perceived the

efficiency of the program, by examining curriculum management, learning preferences, and the programs in place in Antigua and Barbuda. Moreover, it is widely known that if programs are properly planned and executed with adult learners at the center of activities (Poudel et al., 2020), they should yield learners who are motivated and desirous of continuing their learning.

To determine the effectiveness of the programs to motivate learners to transition into lifelong learning, the researcher used a questionnaire which was issued to 150 adult learners, as well as interview schedules to adult learners, facilitators, heads of institutions, and ministry of education officials, as well as the curricula used in the programs. While the research can be generalized in Antigua and Barbuda and other islands in the Organization of the American States (OECS), the researcher recommends that a similar research be undertaken in the larger Caribbean islands to ascertain if their dynamics with the efficiency of their programs is the same.

It is also recommended that a follow-up study be undertaken once the recommendations made in this research is accepted by the policy makers implementing andragogy the main principles used for adult learners enrolled in these institutions. Once adopted and implemented a follow up study can be undertaken to examine the efficiency of the programs as well as how adult learners transition learning throughout life. Both Management and Facilitators should be trained in the usefulness of andragogy to adult learners.

Another recommendation is that a follow-up study be done to track students to determine if their mindset on the efficiency of the programs changed after they graduate from these programs and to determine the role played by the use of andragogy in the teaching and learning environment. It would also help measure how efficiently the programs are managed, as it could provide data on whether adult learners continued their learning and what roles they later played in life. This tracking should be undertaken for at least 5 years. Such research could not be undertaken due to time constraints. Interest in this aspect of the research would be of

significance to the major stakeholders in adult education such as the policymakers, the heads of institutions, the facilitators, parents, accreditation bodies, funding agencies, and even the adult learners who are the products of these programs, as it would give them documented evidence of how these programs are being managed and what needs to be done to make them better.

Also, while the findings of this research refer to Antigua and Barbuda, It is recommended that a similar research be undertaken in the future to determine whether adult learners, facilitators, Heads of Institutions, and Ministry of Education Officials express the same sentiments about the efficiency of their adult education programs as in other Caribbean countries. This would also ensure that attempts to conduct adult education programs are documented, allowing their relevance and success to be tracked.

Additionally, since this research used only current learners enrolled in the programs, the researcher recommends that future research be conducted with former adult learners and adult learners who dropped out of the program. This is necessary to gain these learners' perspectives on the adult education programs they have pursued. In this way, their perspective could be compared to the experiences of the adult learners engaged in this research. It would also be useful to research the perspectives of past heads of institutions to ascertain whether their views on the management of the programs align with those of the present management.

The delivery of content and the teaching and learning environment is paramount to effective teaching and learning. As such, managers of these programs need to recruit facilitators with the requisite knowledge and skills in Andragogy to avoid demotivation of adult learners. In keeping with the research findings that Knowles's (1984) andragogical principles are not widely practiced in the learning environment, the researcher recommends that future research focus on the facilitator's role in the learning environment and on how to address a diverse set of adult learners, some student-centred and others teacher-centred. It is also recommended that

research be undertaken on how best to bridge the gap between theory and practice in the use of andragogy. Evidence in this research indicates the use of andragogical principles in the curricula and by some facilitators. However, despite this, there seems to be a disconnect between knowledge of andragogy and its use to bring maximum benefit to adult learners while engaged in the learning environment. This is evident as some adult learners were still not satisfied with the programs being offered.

Another recommendation is that a similar study be undertaken using a behavioral theory of adult learners, or a combination of two theories, such as andragogy, and a more recent adult learning theory, such as transformative learning theory, which focuses more on the cognitive ability of adult learners. The transformative theory aims to examine adult learners enrolled in adult education programs to ascertain how they learn best.

Moreover, the government policymakers' views on adult education programs could be sought if similar research is carried out in the Eastern Caribbean in the future. It would give the research more depth since how policymakers view these programs could impact on the types of policies governing them, ultimately affecting their management efficiency. In addition, the availability of scarce resources, to facilitate adult learners entering the program, especially financial resources, could be explored in future research. The research could focus primarily on adult education programs, their management, and stakeholders' views, primarily funding agencies, the government, and other financial institutions that could provide funding to adult education institutions. This is to ensure that adult education programs are adequately funded, which would help alleviate some of the financial burdens that act as barriers for adult learners. Such research could lead to the establishment of laws and policies on adult education in Antigua and Barbuda. It would also facilitate the implementation of yardsticks by which to measure the efficiency of these programs. It could also help policymakers to put structures in place to ensure the accountability and effectiveness of these institutions. Once structures are in

place, periodic checks on the workforce's needs could be established and passed to adult education institutions holistically to foster cohesiveness among them.

Likewise, based on the barriers to enrollment expressed by adult learners and the perceived barriers identified by facilitators, a similar study could be undertaken to determine the extent to which such barriers affect the success of the adult education programs. Such barriers could include problems surrounding how courses are scheduled, the availability of information about these programs, a lack of courses that interest the adult learners, and inadequacies of procedures governing such programs, as well as the inadequacy of the location of the institution relative to the adult learner's accessibility of these programs (Cross, 1981). According to Rubenson and Desjardins (2009), the most significant institutional barriers are the cost of tuition and other financial constraints. Detailed information on these barriers could help program management put support in place for adult learners and provide guidance, ultimately making the programs more efficient. Additionally, such information can help lawmakers enact laws that could benefit adult learners. One such policy could be financial aid or the implementation of creches to assist these learners.

Moreover, adult learners' motivation was significant for the efficient management of adult education programs and for the extent to which these learners transition into lifelong learning. Evidence from the research revealed that most adult learners in Antigua and Barbuda is motivated externally by financial or economic reasons. Despite this, evidence from some adult learners suggested that their motivation to continue learning is self-development. Irrespective of the level of motivation of adult learners to transition to lifelong learning, and the motivator in their learning, since the evidence is not definitive, the researcher recommends that further studies be undertaken

Another proposal for future research is to explore the role of social origin more deeply in Antigua and Barbuda. This is suggested since the evidence from this research revealed that

the social origin of adult learners does not affect their motivation to continue learning in Antigua and Barbuda. Additionally, since the effect of social origin is not very prominent in a small twin island state of 108 square miles, it would be interesting to ascertain the extent of its prominence or non-existence. As highlighted in the research, the highest level of academic achievement among adult learners' parents and their feelings about motivation could be reexamined. While the literature by Benner et al. (2016) states that there is a relationship between the two, the data collected from the research prove otherwise. Perhaps the parents of these adult learners' income bracket could also be examined. This further exploration would be geared towards finding out why, in this situation in Antigua and Barbuda, the results were contrary to the literature.

It would be helpful if future research could focus solely on a qualitative case study design. Such a design, as highlighted by Yin (2018), would enable the researcher to collect data from multiple sources. This would involve focus groups and observations to determine whether the findings from this study, based on the interviews and questionnaire, reflect the general feelings of most adult learners enrolled in adult education programs in Antigua and Barbuda. Also, the prospect of using observation could help in determining whether the behavior of adult learners involved in the learning process suggests they are excited or motivated to learn. Data from their grade books could also be collected and analyzed, and all data could be triangulated to ensure the research findings are reliable (Bans-Akutey & Timus, 2021).

For the future, the researcher intends to target agencies such as UNESCO, Adult Education and Adult Learning Journals published in the SAGE journal, Perspectives published by the New York Journal of Adult Learning, the International Journal of Lifelong Education, and the Caribbean Journal of Education published by the University of the West Indies. By so doing the researcher would have a global reach for sharing the research findings. Additionally,

the researcher intends to participate in local, regional, and international research conferences, where the findings of this research can be disseminated.

Having discussed the implications for future research, the researcher will draw conclusions in the next section

5.4 Conclusions

Education is crucial for poverty alleviation and growth. Adult education and training programs contribute to personal development and generate social and economic benefits. Like countries worldwide, adult education programs in Antigua and Barbuda are crucial in promoting global competition. However, there is no evidence indicating whether existing adult education programs are meeting their objectives and helping learners' transition to continue their education. In addition, there is no known evidence of tracking or documentation of the success of these programs in Antigua and Barbuda. This could hinder improvements. The researcher is consequently gathering evidence to determine the efficiency of these programs and to avoid speculation in the future. The undertaking of this research, therefore, could also assist policymakers in Antigua and Barbuda in organizing adult education programs to derive maximum benefits and serve as the basis for future research. As such, it could be used to measure similar programs in the Organization of Eastern Caribbean States (OECS) and beyond, highlighting the importance of efficient adult education program management. In investigating the efficiency of adult education programs in Antigua and Barbuda, the researcher was guided by four research questions.

This research used Knowles' andragogy assumptions as the conceptual framework, and Cross's theory on barriers and motivation in adult learning was also examined in the research. A mixed methods sequential explanatory approach was used, with quantitative data collected in Phase 1 which informed the collection of qualitative data in Phase 2. The mixed methods research design allowed the researcher to collect data from adult learners using a questionnaire,

and qualitative data were used to capture the views of adult learners, facilitators, institution heads, and Ministry of Education Officials in one study. The examination of curricula and gradebooks was also a part of the data collection process.

For question one of this research, the focus was on the extent to which the adult education programs are equipped to transition learners to lifelong learning. The study revealed that the majority of adult learners in Antigua and Barbuda (99%) are motivated to continue their learning, but not to a very high extent. This has implications for the level of efficiency of the programs and whether they will transition as lifelong learners. Moreover, most of the adult learners who were interviewed (67%) described their learning experience as unwelcoming. The fact that adult learners are not very highly motivated suggests that more needs to be done in the programs to motivate learners.

Further, the evidence revealed that the majority of facilitators found the courses offered in the programs to be adequate, while a little less than half found them to be inadequate. This suggests that some adult learners are not adequately catered to, and management needs to improve the curricula and the teaching and learning experience of those adult learners. However, despite the use of current curricula, a high percentage of adult learners remain motivated to continue learning, though not to a very high extent. Notwithstanding this, there is evidence of aspects of the curriculum being teacher-centred. Additionally, the findings revealed that not all adult learners appreciate a student-centred approach to learning. Those adult learners who prefer a teacher-centred approach to learning may not be appreciative of such an approach, and therefore they need to be catered to by program managers if they are to be motivated to transition to lifelong learning. Worthy of note is that some of these learners may be motivated despite their dislike of this approach, as they may not be affected by student-centered activities in the learning environment.

Also, as revealed from the research, most Heads of Institutions found the adult education programs adequate, but two suggested broadening the curriculum to include technology and adopting a more student-centered approach. The Ministry of Education officials also deemed the programs to be well-structured. Additionally, the researcher examined the grade books and curricula of three students from each institution. The findings from the curricula revealed evidence of andragogy in the teaching and learning process. However, based on some adult learners' reports of the programs being unwelcoming, this could indicate that the curricula did not cater to all learners' needs. This was supported by the heads of institutions, who held the view that the curricula needed review. The current curricula were not necessarily enough to motivate learners to continue learning. Evidence from the gradebooks indicated an acceptable level of performance to continue learning.

Furthermore, evidence collected from the grade books revealed that only a little more than half of the adult learners appeared to have mastered the content taught, although there appears to be signs of interest in the courses being taught.

In response to question 2, the study revealed that most adult learners in Antigua and Barbuda are motivated by financial gains, with a few being motivated for their own self-development. This could very well be that the learners who are motivated for personal development could be internally or externally motivated.'

The evidence also revealed that most adult learners in Antigua and Barbuda are not motivated to a very high extent. This has implications for adult learners transitioning into lifelong learning. Additionally, the evidence from the study revealed that less than one quarter of the adult learners enroll in adult education programs for leisure or appeasement. Interviews with adult learners reveal that motivation is primarily about improving living standards rather than excitement about learning. Furthermore, evidence from the gradebook indicated that while adult learners' performance was acceptable, it did not align with the curriculum, which was

lacking in student-centeredness. This is indicative that although students appear to be motivated to learn, their grades could be much improved with a more student-centered curriculum. The management of the adult education programs, therefore, needs to embark on significant curriculum reform to ensure that adult learners' motivation to continue learning is higher.

Moreover, to eliminate factors that could mitigate adult learners' motivation, the researcher conducted hypothesis testing to determine whether factors such as gender and parental education influence adult learners' motivation to continue learning. A Chi-Square test was used to test the relationship between these variables. Two null hypotheses were proposed: no association exists between adult learners' gender and motivation to continue learning, and no relationship exists between parents' education and motivation to continue learning. Whereas the Chi-Square tests indicated no association between gender and adult learners' views on their motivation to continue learning. Research has also shown that females are more motivated to continue learning for economic reasons. Alternatively, previous research shows that the results of the Chi-Square test support what the literature reveals: there is no association between gender and the views on motivation to continue learning. This suggests that, in the context of Antigua and Barbuda, gender does not influence adult learners' decision to continue their learning. The results, therefore, indicated that, regardless of adult learners' gender, their motivation to continue learning is the same.

The researcher also examined the highest level of educational attainment of adult learners' parents and their feelings about motivation as factors that may affect adult learners' decision to continue their learning. A chi-square test of independence was used, and the results indicated that no relationship exists between parents' educational level and learners' motivation in Antigua and Barbuda. This result contradicts previous literature, which suggests that parents' educational attainment strongly influences their children's educational attainment. In the case of Antigua and Barbuda, adult learners are not necessarily affected in their decision to continue

learning by the level of education attained by their parents. The management of the adult learning institutions in Antigua and Barbuda should therefore be cognizant that the motivation to continue learning in their programs rests mainly with the structure of their programs and the nature of the teaching and learning environment.

In response to question 3, which addressed the barriers to participation that exist for adult learners in Antigua and Barbuda to transition into lifelong learning, the researcher conducted a Chi-square Test of Independence to determine whether barriers to participation in adult learning programs affect their transition into lifelong learning. The test revealed a p-value = .229 which is above the alpha level of 0.05. Based on the results, there is no relationship between the barriers encountered and adult learners' motivation to continue their learning. Therefore, managers of adult learning institutions in Antigua and Barbuda can eliminate barriers that affect adult learners' motivation to continue learning.

The evidence revealed that the most significant barriers faced by adult learners in Antigua and Barbuda is financial or economic barriers. This is the view of the facilitators, heads of Institutions and These barriers are attributed to dispositional factors, life events, parenting responsibilities, socioeconomic status, and pre- requisite education, with most females facing these issues. The adult learners' pathways depend on opportunities, cultural constraints, and social structures. However, many factors such as the parental educational level attained by the parents of the adult learners can influence their transition to continuous learning. Research has also shown that a parent's educational level and economic status can influence their children's education. Despite this, however, the study revealed that none of the parents of adult learners in Antigua and Barbuda achieved a Ph.D. level, with very few attaining a Master's level. Additionally, those adult learners whose parents attained only a certificate-level education reported levels of motivation ranging from slightly motivated to highly motivated. This suggests that in Antigua and Barbuda, there is no correlation between parents' level of academic

attainment and their offspring's motivation, as indicated by data collected from adult learners. Moreover, the study contradicts previous literature suggesting that higher education levels attained by parents can motivate their children's pathways. Based on the data, neither gender nor parental education significantly impacts adult learners' transitions from secondary to tertiary education and beyond in Antigua and Barbuda. The level of motivation among adult learners, therefore, appears to hinge on their own economic needs.

To gain perspective on how the programs are viewed in Antigua and Barbuda, compared with other countries in the Caribbean region, the Ministry of Education officials were consulted. In response, these officials felt that the adult education programs appeared to have an adequate structure for serving the adult population. The researcher found that this view might be cosmetic, as if the adult education programs were meeting their objectives, the available data would be available. Under such circumstances, the efficiency of the adult education programs would be informed by continuous reviews, thereby generating data. The reality is that no available data informs us how well these programs are managed. Adult education is non-existent in the Education Act of Antigua and Barbuda. As such this resulted in the inadequacy of governance of these adult education institutions and a hindrance to planning amongst the adult education institutions.

Having conducted the study in Antigua and Barbuda, the researcher believes that time constraints hindered the study from having a wider reach in terms of application, as additional data could have been collected from participants in other OECS countries. Also, the study would have been more insightful if the data collected on the adult education programs focused to a greater extent on the adult learners' output after completing their programs, as well as the tracking of their pathway after leaving the adult education institutions.

Moreover, the researcher highlighted limitations. The study examined the effectiveness of managing adult education programs in Antigua and Barbuda, focusing on transitioning

learners into lifelong learning. Perhaps the study would have been more meaningful if tracking of adult learners from secondary to tertiary education was undertaken. Tracking of adult learners could have been done from secondary to tertiary education and overtime. This would assist in verifying their pathway over time and in determining the role of management at these institutions in motivating adult learners to continue their learning.

This research highlighted that there are inadequacies in adult education institutions, arising from feedback from adult learners, facilitators, and managers, indicating issues with curricula, teaching, and learning. Learners' motivation is primarily extrinsic, affecting the quality and depth of learning. Based on these factors, the researcher suggests that the adult education programs in Antigua and Barbuda are under-researched and lack a clear framework for their establishment, leading to improper management. The researcher recommends creating a policy framework that incorporates andragogy, lifelong learning, and Knowles' work on adult learners. This will help establish a more effective management of adult education in Antigua and Barbuda.

Furthermore, the researcher suggests that the Government of Antigua and Barbuda establish a task force for adult education comprising government officials, institution heads, facilitators, and adult learners. This group will review the curricula and teaching environment of the three tertiary institutions, ensuring consensus on management and efficient measures. The discussion could also involve adult learners from all institutions and incorporate the views of other managers in other tertiary institutions in the region, such as Jamaica, to add value. Similarly, the researcher suggests that a campaign or dialogue take place on the benefits of adult education in Antigua and Barbuda, focusing on local institutions. The researcher also suggests creating a manual governing all adult educational institutions, incorporating numerical data on enrollment, drop-out rates, and curriculum completion time to ensure efficient management and a better understanding of the benefits of adult education in the

region. Additionally, the researcher suggests that a task force should be formed to engage with adult learners, facilitators, and institution managers to gather suggestions for enhancements of their respective adult education institutions based on the findings of the research. The task force will focus on the revision of curricula to be more student-centered. The researcher recommends training facilitators and managers to handle adult learners using teacher-centered approaches, ensuring the teaching-learning environment is optimized for maximum output from learners, based on data suggesting such approaches.

Facilitators play a crucial role in addressing the learning environment deficiencies of adult learners, particularly when dealing with individual learning differences. The researcher suggests that training all facilitators in andragogy is essential to ensure that courses and testing are delivered and administered according to adult learners' preferences, as this could potentially increase enthusiasm and motivation levels among these learners. The researcher further suggests that institutions should monitor curricula and ensure programs meet adult learners' needs, aligning with andragogical assumptions. Managers of adult education programs should be trained in management principles such as planning, directing, organizing, and controlling which should support each other. When applying these principles, managers should consider the andragogical assumptions since adults learn differently from children. The efficiency of adult education program management should also consider the adequacy of programs to cater to adult learners' needs. This will help managers better understand their institutions and address diverse situations.

Despite 99% of adult learners being motivated to continue learning, two heads of institutions recommended broadening the curriculum, and one suggested a more student-centered curriculum. Upon examining the curricula of three tertiary institutions, the researcher found very little evidence of student-centered curricula. However, adult learners' performance

was not affected as their grade books were averaged. Also, there was no indication of motivation to continue learning.

The study found that adult learners are primarily motivated by their financial and job needs. However, not all are motivated enough to transition into lifelong learners continue their studies. The researcher suggest that adult education institutions should address this issue to ensure future learners are fully motivated. Additionally, the study identified several barriers that need to be reduced or eliminated to benefit future learners. The researcher recommends addressing these gaps in learning to improve the motivation and success of adult learners. Considering this, the researcher suggests that adult education program managers should educate adult learners about the benefits of enrolling in adult education programs, aiming to change their mindset and encourage intrinsic motivation. This could involve interactions with counselors, academic advisers, and past adult learners. Seminars and programs should be established to make learners aware of their roles as learners. Discussions with the student body can help them feel the need for self-actualization rather than seeking higher pay or promotion. The research also found that adult learners in Antigua and Barbuda do not follow the trend of other countries, suggesting that more tracking is needed to understand their motivation before and after the program.

The research examined the motivation and barriers faced by adult learners, finding no correlation between these factors and adult learners' feelings of motivation to continue learning. Academic barriers were encountered by adult learners, as well as dispositional barriers with children and family responsibilities being the most significant. The researcher recommends that remedial programs should be integrated into the adult education curricula, and facilitators should be trained to handle the execution of the curricula and the needs of these adult learners. Further, support systems should be established for situational barriers, and financial assistance should be provided to those facing financial difficulties. Psychological support should also be

provided to all learners. A Chi-square test showed no correlation between barriers and motivation, suggesting that socioeconomic factors also impact motivation.

Adult education is crucial for the social and economic development of countries the world over as stated by UNESCO in 2016. As such, an efficient adult education program in Antigua and Barbuda is essential if the country is to produce productive citizens. This study utilizes mixed methods sequential explanatory research design aimed to explore the efficiency of the adult education programs in three tertiary institutions and provide documentary evidence of their success. No research has been conducted in Antigua and Barbuda or the Organization of the Eastern Caribbean States (OECS). Therefore, the undertaking of this research will contribute to the body of research on adult education. The researcher suggests a potential replication of this mixed-method sequential explanatory research, focusing on tertiary institutions in the OECS, to ensure documentation and tracking of adult education programs' relevance and success.

Moreover, as an enhancement to the current research, the researcher recommends that follow-up study be undertaken to track students before and after entering adult education programs to assess their views about the efficiency of these programs after they have graduated. This will determine if their views on the adult education programs changed qualitatively as well as ascertain if the quantitative data collected from the participants of the study remained the same over time. The study should be conducted for five years or longer, providing data on adult learners' continued learning and future roles. This research would be of interest to policymakers, institution heads, facilitators, parents, accreditation bodies, funding agencies, and adult learners, as it would provide documented evidence of program management and improvement.

The research focused on current adult education students and recommended future studies with former adult learners and those adult learners who dropped out of the adult

education programs to compare their experiences to the adult learners engaged in this research. It could also entail researching past institution heads' perspectives to determine if their views align with the current management of these programs. This will help to compare the experiences of adult learners and inform future research.

In addition, the researcher suggests that in keeping with Knowles's (1984) theory of andragogy, future research on the best recruitment practices of facilitators be undertaken with an emphasis on the qualifications and experience of facilitators in adult education. It is hoped that this research will have a more significant impact on adult learners and enhance the efficiency of the management of adult education programs.

The researcher believes that research exploring policymakers' views on adult education programs on Eastern Caribbean islands could be undertaken. This could impact on the types of policies governing these programs and the efficiency of their management. The research should focus on adult education programs, their management, and the views of stakeholders, such as funding agencies, government, and financial institutions. Such research would further assist in ensuring adequate funding and alleviating financial burdens for adult learners. The research could lead to the establishment of laws and policies on adult education in Antigua and Barbuda, facilitating the implementation of efficiency measures, and establishing structures for accountability and effectiveness. Periodic checks on workforce needs could also promote cohesiveness among adult education institutions.

Additionally, any research in the future should establish a definitive definition of adult education and lifelong learning in the CARICOM States, allowing for a singular definition across all CARICOM states. However, there is a lack of familiarity with lifelong learning concepts in Antigua and Barbuda, possibly due to the level of economic development. Familiarity with the term andragogy in adult education institutions in Antigua and Barbuda is also lacking, as it is not promoted by policymakers, heads of institutions, and other

stakeholders, adult education in Antigua and Barbuda is primarily based on part-time courses with Institution A or B, without using the jargon aligned with adult education. Policies on adult education should be informed by research, and these should guide how programs are perceived by adult learners.

The researcher is of the view that a future study could also investigate the impact of various barriers to adult learners' enrollment in adult education programs, including family responsibilities, financial constraints, and the ability to balance work and family responsibilities. Institutional barriers, such as scheduling problems, information availability, and lack of interest in courses, which could also affect adult learners could also form part of the study. Since the most significant institutional barriers are tuition costs and financial constraints, an understanding of these barriers can help the management of the adult education programs in providing support and guidance thereby making programs more efficient. Additionally, the undertaking of this research can help lawmakers create laws that benefit adult learners, such as financial aid or creches. This information could also help create policies that support adult learners and improve their educational experience.

The Chi-square test found no correlation between gender and adult learners' feelings about motivation. However, researchers have opposing views on this, with some suggesting females are more motivated to continue learning. The research did not differentiate between genders, so the perspective that there is no difference between how males and females feel about motivation while learning could be accepted. The researcher recommends further research to examine gender separately and the feelings of male and female learners on motivation. This will help determine if male adult learners are more motivated and the reasons behind this. This will have implications for management, as they can better support learners who do not feel as motivated as expected.

The researcher recommends that further research be undertaken on the efficient management of adult education programs in Antigua and Barbuda, focusing on the role of social origins and how it affects program efficiency. As highlighted in the research, the highest level of academic achievement by the parents of adult learners and their feelings about the level of motivation could be reexamined in future research, as the data collected and analyzed contradict the literature. As highlighted by Benner et al., (2016) there is a relationship between both. Additionally, parents' income bracket could be examined to understand why the results in Antigua and Barbuda differ from the literature.

The researcher also suggests examining the gradebooks and curricula of all adult learners participating in the research. The aim is to effectively administer programs that motivate them to continue learning. Observing adult learners and conducting interviews with facilitators might also be beneficial. This will allow the researcher to assess if adult education programs sufficiently motivate enrolled adult learners. Furthermore, they may be requested to compose a statement expressing their sentiments towards the programs and outlining plans post-completion.

In the future, the information gleaned from this research will prove to be useful to Antigua and Barbuda, as the researcher intends to share its content with the government policy makers, heads of adult education institutions, other educational institutions, and the public. Moreover, further afield, the researcher plans to focus on agencies like UNESCO and academic journals such as SAGE's Adult Education and Adult Learning Journals, New York Journal of Adult Learning's Perspectives, International Journal of Lifelong Education, and the University of the West Indies Caribbean Journal of Education as possible avenues for publication. By doing so, the researcher would reach a worldwide audience to disseminate the research findings.

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APPENDICES

Appendix A: UREC Application and Approval to carryout Research



REAF_DS - Version 3.1 AP

UNICAF UNIVERSITY RESEARCH ETHICS APPLICATION FORM DOCTORAL STUDIES	UREC USE ONLY: Application No. Date Received:
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Student's Name: Jacinta Meade

Student's E-mail Address: jacmeade2000@yahoo.com

Student's ID #: R1805D5183033

Supervisor's Name: Dr. Georgios Dourgkounas

University Campus: Unicaf University Zambia (UUZ) Program of Study: UUZ: EdD Doctorate of Education

Research Project Title: An investigation into the management of the adult education programs and its effect on lifelong learning in 3 adult learning institutions in Antigua and Barbuda.

1. Please state the timelines involved in the proposed research project:

Estimated Start Date: 11-Feb-2023

Estimated End Date: 1-Mar-2024

2. External Research Funding (if applicable):**2.a. Do you have any external funding for your research?**
 YES NO

If YES, please answer questions 2b and 2c.

2.b. List any external (third party) sources of funding you plan to utilise for your project. You need to include full details on the source of funds (e.g. state, private or individual sponsor), any prior / existing or future relationships between the funding body / sponsor and any of the principal investigator(s) or co-investigator(s) or student researcher(s), status and timeline of the application and any conditions attached.

2.c. If there are any perceived ethical issues or potential conflicts of interest arising from applying or and receiving external funding for the proposed research then these need to be fully disclosed below and also further elaborated on, in the relevant sections on ethical considerations later on in this form.

3. The research project

3.a. Project Summary:

In this section fully describe the purpose and underlying rationale for the proposed research project. Ensure that you pose the research questions to be examined, state the hypotheses, and discuss the expected results of your research and their potential.

It is important in your description to use plain language so it can be understood by all members of the UREC, especially those who are not necessarily experts in the particular discipline. To that effect ensure that you fully explain / define any technical terms or discipline-specific terminology (use the space provided in the box).

The research aims to investigate the management of the adult education programs in 3 tertiary institutions in Antigua to determine if they are efficiently managed and meeting their objectives of continuing to transition learners into lifelong learning. As such, the theory of andragogy by Knowles (1984) and Cross's (1981) theory about barriers and motivation in adult learning will be examined to ascertain their roles in managing adult education programs. Measuring the success of the adult education programs in Antigua is significant since it will eliminate speculation and provide documentary evidence on how these programs are managed, as well as help the government policymakers to manage their annual capital injections into the institutions. This research could also provide the foundation for other research on adult education and lifelong learning in Antigua.

The research questions are:

1. How equipped are the adult education programs in Antigua to transition learners into lifelong learning
2. What factors play a role in motivating adult learners to continue learning in Antigua and Barbuda?
3. What barriers to participation exist for adult learners in Antigua and Barbuda to transition into lifelong learning?
4. To what extent do socioeconomic factors such as gender, and highest educational level attained by parents of adult learners influence the transition of learners from secondary to tertiary education and beyond?

3.b. Significance of the Proposed Research Study and Potential Benefits:

Outline the potential significance and/or benefits of the research (use the space provided in the box)

This research will serve to determine how efficiently the adult education programs in Antigua and Barbuda are managed as well as promote lifelong learning. Since no research of this nature has been undertaken in Antigua, it will provide documentary evidence on the extent to which the adult education programs are meeting their objectives, and could serve as a yardstick to measure similar programs in the Organization of Eastern Caribbean States (OECS) and further afield. Additionally, as promoted by UNESCO (1997) and Liashenko (2020), such programs could produce citizens that could contribute to the socio-economic development of countries. However, this can only be guaranteed if they are efficiently managed, and so it bears significance to the outcome of this research.

References

Liashenko, O. (2020). Adult education: benefits, obstacles, priorities. *Economics, Finance and Management Review*, (3), 95–102. Retrieved from [wein https://doi.org/10.36690/2674-5208-2020-3-95](https://doi.org/10.36690/2674-5208-2020-3-95)

UNESCO (1997) *International Conference for the Education of Adults: Hamburg*.

4. Project execution:**4.a. The following study is an:**

- experimental study (primary research)
- desktop study (secondary research)
- desktop study using existing databases involving information of human/animal subjects
- Other

If you have chosen 'Other' please Explain:

i.							
ii.							
iii.	ix.	Have you ensured that personal data and research data collected from participants will be securely stored for five years?	<table border="1"> <tr> <td>Yes</td> <td>No</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	Yes	No	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Yes	No						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
	x.	Does this research involve the deception of participants? If YES, describe the nature and extent of the deception involved. Explain how and when the deception will be revealed, and who will administer this debrief to the participants:	<table border="1"> <tr> <td>Yes</td> <td>No</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>	Yes	No	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Yes	No						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
iv.							
v.							
vi.							
vii.							

6 c. i. Are there any other ethical issues associated with the proposed research study that are not already adequately covered in the preceding sections?

Yes No

If YES, specify (maximum 150 words).

viii.

6.c.ii Provide information on what measures will be taken in order to exclude or minimise ethical issues described in 6.c.i.

The researcher will meet with all participants prior to beginning the research and explain what is involved in the research. In addition, the researcher will put what is explained in writing.

Jacint:

6 d. Indicate the Risk Rating.

High Low

10. Final Declaration by Applicants:

- (a) I declare that this application is submitted on the basis that the information it contains is confidential and will only be used by Unicaf University for the explicit purpose of ethical review and monitoring of the conduct of the research proposed project as described in the preceding pages.
- (b) I understand that this information will not be used for any other purpose without my prior consent, excluding use intended to satisfy reporting requirements to relevant regulatory bodies.
- (c) The information in this form, together with any accompanying information, is complete and correct to the best of my knowledge and belief and I take full responsibility for it.
- (d) I undertake to abide by the highest possible international ethical standards governing the Code of Practice for Research Involving Human Participants, as published by the UN WHO Research Ethics Review Committee (ERC) on <http://www.who.int/ethics/research/en/> and to which Unicaf University aspires to.
- (e) In addition to respect any and all relevant professional bodies' codes of conduct and/or ethical guidelines, where applicable, while in pursuit of this research project.

**I agree with all points listed under Question 10**Student's Name: Supervisor's Name:

Date of Application: 12-Feb-2023

Important Note:

Save your completed form (we suggest you also print a copy for your records) and then submit it to your UU Dissertation/project supervisor (tutor). **In the case of student projects, the responsibility lies with the Faculty Dissertation/Project Supervisor.** If this is a student application, then it should be submitted via the relevant link in the VLE. Please submit only electronically filled in copies; **do not** hand fill and submit scanned paper copies of this application.

local ethics or professional regulatory body.

Appendix B: Permission to undertake research at institutions

ANTIGUA STATE COLLEGE



P.O. Box 193
Golden Grove
St. John's
Antigua

Phone: (268) 462-0413
(268) 462-1434
Fax: (268) 460-9476
Email: Principal@asc.edu.ag



June 28, 2022

Jacinta Meade
Scotts Hill
St. John's
Antigua

Dear Ms. Meade

Re: Educational Research

Further to our telephone conversation and subsequent gatekeeper's letter requesting permission to interview me and conduct research among adult learners of Antigua State College, I wish to confirm that I grant permission to conduct such research.

I wish you success in your work.

Yours sincerely

Jacqueline Peters Richardson
Principal (Ag)



P.O. Box 736, Coolidge, St. John's, ANTIGUA
Tel: 1 (268) 480-2400 * Fax: 1 (268) 480-3409/44/11
E-mail: info@abiit.edu.ag * Website: www.abiit.edu.ag

September 16, 2023

Jacinta Meade
Doctoral Student
Unicaf University of Zambia

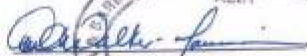
Re: Educational Research

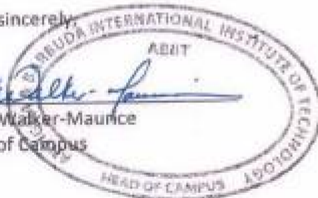
Dear Mrs. Meade,

Further to our telephone conversation and subsequent gatekeeper's letter requesting permission to interview me and conduct research among adult learners of the Antigua and Barbuda International Institute of Technology, I wish to confirm that I grant permission to conduct such research.

I wish you every success in your work.

Yours sincerely,


Ornel Walker-Maurice
Head of Campus
ABIIT





P.O. Box 736, Coaklege, St. John's, ANTIGUA
Tel: 1 (268) 480-3400 * Fax: 1 (268) 480-3409/44/11
E-mail: info@abiit.edu.ag * Website: www.abiit.edu.ag

September 16, 2023

Jacinta Meade
Doctoral Student
Unicaf University of Zambia

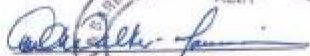
Re: Educational Research

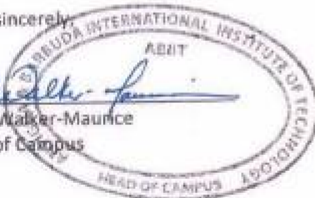
Dear Mrs. Meade,

Further to our telephone conversation and subsequent gatekeeper's letter requesting permission to interview me and conduct research among adult learners of the Antigua and Barbuda International Institute of Technology, I wish to confirm that I grant permission to conduct such research.

I wish you every success in your work.

Yours sincerely,


Ornel Walker-Maurice
Head of Campus
ABIIT



Appendix D: Informed Consent Forms



UU_IC - Version 2.1

Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant(s)

Student's Name:	Jacinta Eudolyn Meade
Student's E-mail Address:	jacmeade2000@yahoo.com
Student ID #:	R1805D5183033
Supervisor's Name:	Dr. Georgios Dourgkounas
University Campus:	Unicaf University Zambia (UUZ)
Program of Study:	UUZ: EdD Doctorate of Education
Research Project Title:	An investigation into the management of the adult education programs and its effect on lifelong learning in tertiary institutions in Antigua and Barbuda.

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that I am free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of my participation to this study. I understand that my data will remain anonymous and confidential, unless stated otherwise. I consent voluntarily to be a participant in this study.

Participant's Print name:

Participant's Signature:

Date:

If the Participant is illiterate:

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had an opportunity to ask questions. I confirm that the aforementioned individual has given consent freely.

Witness's Print name:

Witness's Signature:

Date:

Informed Consent Form**Part 2: Certificate of Consent**

This section is mandatory and should to be signed by the participant(s)

Student's Name:	Jacinta Eudolyn Meade
Student's E-mail Address:	jacmeade2000@yahoo.com
Student ID #:	R1805D5183033
Supervisor's Name:	Dr. Georgios Dourgkounas
University Campus:	Unicaf University Zambia (UUZ)
Program of Study:	UUZ: EdD Doctorate of Education
Research Project Title:	An investigation into the management of the adult education programs and its effect on lifelong learning in tertiary institutions in Antigua and Barbuda.

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that I am free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of my participation to this study. I understand that my data will remain anonymous and confidential, unless stated otherwise. I consent voluntarily to be a participant in this study.

Participant's Print name:

Participant's Signature:

Date:

If the Participant is illiterate:

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had an opportunity to ask questions. I confirm that the aforementioned individual has given consent freely.

Witness's Print name:

Witness's Signature:

Date:

Appendix C: Sample Gate keepers Letter



UU_GL - Version 2.0



Gatekeeper letter

Address: Golden Grove, St, John's, Antigua

Date: 12-Feb-2023

Subject: PARTICIPATION IN RESEARCH PROJECT

Dear Manager of Institution,

I am Jacinta Meade, a doctoral student at Unicaf University of Zambia.

As part of my degree I am carrying out a study on "an investigation into the management of adult education programs and their effect on lifelong learning in 3 tertiary institutions in Antigua and Barbuda."

I am writing to inquire whether you would be willing to participate in the above research as an interviewee. In addition, I would appreciate if you could grant permission for fifty adult learners from your institution to participate in this research, as well as assist in the selection of these learners. Your assistance will also be sought for the distribution of the questionnaires,

Subject to approval by Unicaf Research Ethics Committee (UREC) this study will be using interview and questionnaire to provide valuable data .

The study uses a mixed methods approach and my supervisor is Dr. Georgios Dourgkounas

Once participants of the study give their consent, I am soliciting your assistance in providing the list of adult learners in your institution. Also, I need your assistance in retrieving the email addresses of the adult learners and facilitators who meet the criteria for inclusion in the study. I would also need your permission to access the students gradebook.

Thank you in advance for your time and for your consideration of this project. Kindly please let me know if you require any further information or need any further clarifications.

Yours Sincerely,

Jacinta E Meade

Student's Name: Jacinta Eudolyn Meade

Student's E-mail: jacmeade2000@yahoo.com

Student's Address and Telephone: Scotts Hill, St. John's Antigua, Telephone No. 1268-7225685

Supervisor's Title and Name: Dr. Georgios Dourgkounas

Supervisor's Position:

Supervisor's E-mail: g.dourgkounas@unicaf.org

Appendix E: Permission to use research tools

Permission to use research tool from Sides

The screenshot shows an email client interface. On the left is a sidebar with folders: Compose, Inbox (31K), Unread, Starred, Drafts (1.7K), Sent, Archive, Spam, Deleted Items, ^ Less, Views (Show), and Folders (Show). The main area displays an email thread. The top email is from Jacinta Meade with subject 'PERMISSION TO USE SURVEY' and body text: '...studies captioned "Survey." Once permission is...'. The bottom email is from Emilee Sides with subject 'FW: PERMISSION TO USE SURVEY' and body text: 'Good morning! Thank you for reaching out. Absolutely, you may use and adapt this survey for your study. Best of luck in your pursuit! Emilee'. Below this is a quoted email from Kevin M. Roessger with subject 'FW: PERMISSION TO USE SURVEY' and body text: 'Hi Emilee, I hope all is well. Take a look at email below ...'.

Compose

← Back ↶ ↷ → Archive ↶ Move 🗑 Delete 🛡 Spam ...

PERMISSION TO USE SURVEY 2 Yahoo/Inbox ☆

J Jacinta Meade ...studies captioned "Survey." Once permission is... Mon, 6 Feb at 08:48 ☆

Sides, Emilee S <essides@asumidsouth.edu> Tue, 14 Feb at 10:09 ☆
To: jacmeade2000@yahoo.com
Cc: Kevin M. Roessger

Good morning!

Thank you for reaching out. Absolutely, you may use and adapt this survey for your study.

Best of luck in your pursuit!

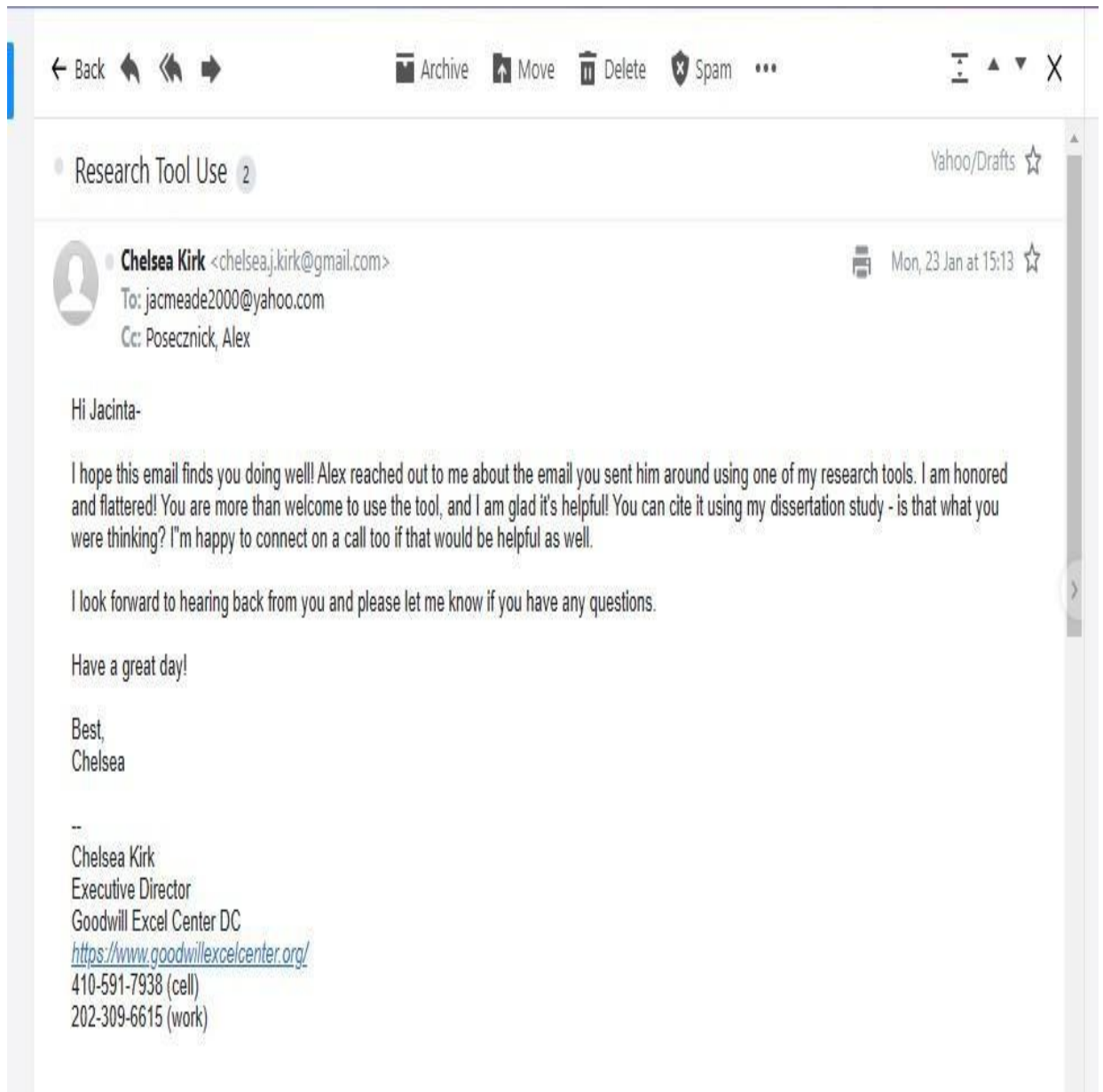
Emilee

From: Kevin M. Roessger <kmroessg@uark.edu>
Sent: Saturday, February 11, 2023 10:32 AM
To: Sides, Emilee S <essides@asumidsouth.edu>
Subject: FW: PERMISSION TO USE SURVEY

Hi Emilee,

I hope all is well. Take a look at email below ...

Permission to use research tool from Kirk



The screenshot shows an email client interface. At the top, there are navigation icons: a left arrow labeled 'Back', a double left arrow, a right arrow, an 'Archive' icon, a 'Move' icon, a 'Delete' icon, a 'Spam' icon, and a three-dot menu. On the right side of the top bar, there are icons for a list, a triangle, and a close 'X' button. Below the top bar, the email title is 'Research Tool Use' with a '2' in a circle next to it. On the right side of the title bar, it says 'Yahoo/Drafts' with a star icon. The sender information shows a profile picture of Chelsea Kirk, her name 'Chelsea Kirk', and her email address '<chelsea.j.kirk@gmail.com>'. The recipient is 'To: jacmeade2000@yahoo.com' and the CC is 'Cc: Posecznick, Alex'. The date and time are 'Mon, 23 Jan at 15:13' with a star icon. The body of the email contains the following text:

Hi Jacinta-

I hope this email finds you doing well! Alex reached out to me about the email you sent him around using one of my research tools. I am honored and flattered! You are more than welcome to use the tool, and I am glad it's helpful! You can cite it using my dissertation study - is that what you were thinking? I'm happy to connect on a call too if that would be helpful as well.

I look forward to hearing back from you and please let me know if you have any questions.

Have a great day!

Best,
Chelsea

--
Chelsea Kirk
Executive Director
Goodwill Excel Center DC
<https://www.goodwillexcelcenter.org/>
410-591-7938 (cell)
202-309-6615 (work)

Appendix F: Research Tools

Appendix F: Research Tools

Adult Learners Questionnaire

You are invited to complete the following questionnaire, which aims to investigate the management of adult education programs and their effect on lifelong learning in 3 tertiary institutions in Antigua and Barbuda. The questionnaire should take only 15 minutes to complete and include four sections. By participating in this questionnaire, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way.

You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with.

You have the right to withdraw at any stage of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted.

Please complete all questions and make sure you follow the instructions for each question. Your responses will be kept confidential.

Section A

This set of questions is to learn more about you as an individual. Directions: Please read the following statements and select the one response that best reflects your answer.

1. What gender do you identify as? Choose one option.

Male Female

Other Prefer not to mention

2. What is your age? Please write your exact age in years below.

20-26 27-33 34-40

What part of Antigua and Barbuda do you reside in?

Urban Suburban Rural

3. Where were you born?

- Antigua and Barbuda
- Other countries', please specify_____
- Europe
- North America

4. What is the highest level of education completed by your parents? Choose one option.

- PhD
- Masters
- Bachelors
- Diploma
- Certificate
- Other, Please specify

Section B

The next set of questions is to learn about your learning preferences. For each statement, please choose the response that most accurately reflects you.

Choose one option for each question presented in the table below. Circle the number that represents your opinion.

Statements	1 Not at all	2 Very little	3 To some extent	4 To a high extent	5 To a very high extent
a)When I learn or read about new ideas, I try to relate them to real-life situations to which they might apply.	1	2	3	4	5
b)The instructor incorporates my prior experiences into the learning environment.	1	2	3	4	5
c)I like learning new things	1	2	3	4	5
d) If I don't understand something, I seek additional information to clarify it.	1	2	3	4	5
e) When I come across something new, I try to relate it to what I already know.	1	2	3	4	5
f)I like to figure out how different ideas fit together.	1	2	3	4	5
g) I feel enthusiastic about how my courses are delivered.	1	2	3	4	5
h) I enjoy learning, and I am motivated to continue learning if given the opportunity.	1	2	3	4	5
I am motivated to continue learning.	1	2	3	4	5
j) Adult education programs utilize discussions and shared experiences throughout the teaching and learning process.	1	2	3	4	5

Section C

This set of questions is designed to learn more about the barriers experienced by adult learners.

1. **Directions: Please tick the option(s) that is most suitable to your situation.**

You may select more than one option.

- a) Did not have the prerequisite
- b) Too expensive
- c) Lack of employee support
- d) Too busy at work
- e) Course program offered at an inconvenient time
- f) Children or family responsibilities
- g) Something unexpected came up that prevented me from undertaking education or training.
- h) Other, please specify _____

Section D

Information related to the efficiency of managing adult education programs and the effect on lifelong learning.

Directions: For each statement, please indicate which option is most suitable for the question below. Circle the option that best represents your opinion.

Statements/Questions	1 Not at all	2 Very little	3 To some extent	4 To a high extent	5 To a very high extent
a) To what extent do you believe that adult education programs are being properly managed?	1	2	3	4	5
b) To what extent do you believe that the curricula and mode of delivery of adult education programs need to be restructured?	1	2	3	4	5
c) To what extent do you believe managers need to pay closer attention to how the subjects that form part of the course of study are structured?	1	2	3	4	5
d) To what extent do you believe management needs to engage adult learners more often to investigate their learning needs?	1	2	3	4	5
e) To what extent do the subjects that form part of the course of study adequately facilitate adult learners to continue their studies?	1	2	3	4	5

5. Where were you born?
- Antigua and Barbuda Other
Caribbean, please specify _____
- Europe North America
6. What is the highest level of education that you have completed? Choose one option.
- High School
 Secondary School
 Other , please specify _____
7. a) How long have you been out of school?
- 1-5 years 6-10 years 11-15 years Over 16 years
- b) If there is a gap between your completion of school and your
enrollment in these programs, please explain the reasons for the gap

-

Section B: Experience with adult education programs

8. How was your experience of returning to education?
9. What do you hope to achieve by participating in these educational programs?
10. Do you have plans for furthering your education?
11. What obstacles to enrollment, if any, have you encountered before enrolling in
the adult education programs? Briefly state how you overcame these barriers.
12. Briefly describe your learning experience since you enrolled in the program.
13. How do you feel about how the programs are managed and executed? Explain

Interview Schedule for Facilitators

Orientation to Research

As part of the fulfillment of the Doctor in Education Program at UNICAF University, you will be interviewed as part of my research entitled “**An Investigation into the Management of the Adult Education Program and its Effect on Lifelong Learning in Three Tertiary Institutions in Antigua and Barbuda.**” The information gleaned from the interview will be used as one of the bases of the dissertation. The interview comprises 12 questions and seeks to determine whether the adult education programs are effectively managed and meeting their objective of transitioning learners into lifelong learning. As individuals facilitating these programs. Your input is of great significance as it will help determine if these programs are meeting their objectives. The questions are designed so that you can express yourself freely. Your responses will remain confidential.

Section A: Demographics of Facilitators

1. What gender do you identify as? Choose one option.
 Male Female
 Other Prefer not to mention
2. What is your age?
 20-26 27-33 34-40 Above40
3. Number of years employed:
 5-10 11-16 17-22 Above 23
4. What teaching qualifications do you possess?
 Phd Masters Bachelors
 Diploma Certificate

Other, please specify _____

Section B: General Questions about Adult Education Programs

5. Based on your years of experience, what motivates adult learners, and what is the expectation of adult learners who pursue adult education programs?
6. What teaching method or strategy do you use with adult learners? Briefly explain
7. In your opinion, are your institution's courses adequate in meeting the needs of the adult learners who enroll in these programs?
 - a) Is there any area of the adult education programs that you think needs to be improved? Please explain.
 - b) If not, are there any adult education practices you want implemented? Please explain.
8. What are the most significant barriers to learning that students encounter before and after enrollment in adult education programs?
How do you assist them in dealing with any barriers they encounter?

Interview Schedule for Managers of Institutions:

Orientation to Research

As part of the fulfillment of the Doctor in Education Program at UNICAF University, you will be interviewed as part of my research entitled “**An Investigation into the Management of the Adult Education Program and its Effect on Lifelong Learning in Three Tertiary Institutions in Antigua and Barbuda.**”The information gleaned from the interview will be used as one of the bases of the dissertation. The interview comprises eleven questions and seeks to determine if the adult education programs are effectively managed and meeting their objectives of transitioning learners into lifelong learning. As individuals managing these programs, your input is of great significance, as it will help determine whether these programs are meeting their objectives. The questions are designed so that you can express yourself freely. Your responses will remain confidential.

Please select the suitable option by placing a tick in the box provided

Section A: Demographics

1. What gender do you identify as? Choose one option.

- Male Female
 Other Prefer not to mention

2. What is your age?

- 25-29 30-34 34-40 35-39 Above 40

3. How long have you been a manager of the adult education programs in your institution?

- 1-5 6-10 11-15 Over15

Section B: General Questions

4. How would you describe the contribution of adult education programs to any country?
5. Have you always wanted to join the management of adult education?

Programs, and if so, state the reason (s) why.

6. Are there any aspects of your program that could be improved? If so, can you explain?
7. What improvements, if any, would you like to see made to your institution's programs? Explain.

b) In your opinion, do you think that improvements could be made in any of the

following areas to improve the programs

- The relevance and content of the programs.
- Training for facilitators
- Structure and facilities
- Other, please specify _____

8. a) What is the most significant barrier to enrollment that you have observed in your role as manager of the adult education programs?

b) What measures are in place to deal with such barriers?

9. What factor(s) contribute to the discontinuance of some adult learners in adult education programs?

10. What factor(s) are the greatest barriers to enrollment for adult learners?

Interview Schedule for Ministry of Education Officials

Orientation to Research

As part of the fulfillment of the Doctor in Education Program at UNICAF University, you have been invited to participate in my research entitled “An investigation into the management of the adult education program and its effect on lifelong learning in **three tertiary institutions in Antigua and Barbuda**. “The information gleaned from the interview will be used as one of the bases of the dissertation. The interview comprises eight questions and seeks to determine whether the adult education programs are effectively managed and are meeting their objective of transitioning learners into lifelong learning, as well as the extent to which adult learners’ transition into lifelong learners. As individuals enrolled in these programs, your input is highly significant, as it will help determine whether these programs are meeting their objectives. The questions are designed in such a way that you can express yourself freely. Your responses will remain confidential.

Section A: Demographics of Adult Learners

Directions: Please read the following statements and select the one response that best reflects your answer.

1. What gender do you identify as? Choose one option.
 Male Female
 Other Prefer not to mention
2. What is your age?
 20-26 27-33 34-40 Above 40
3. What is your highest academic qualification? Please specify by selecting an option from the boxes below
 Diploma Bachelor’s Degree Untrained

Other, please specify _____

Section B: General questions on adult education programs

4. How do you perceive the management of adult education Programs in Antigua and Barbuda?
5. What advantages and challenges do you face with adult education programs?
6. What attributes should the management of adult education programs possess?
7. Do you think that all adult education programs, whether operated in Jamaica or the wider Caribbean and its islands similar in nature?

Document Review of Curricula and gradebook Protocols

Statements	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
The Curricula					
a) The curricula suggest that the adult learners 'experiences are considered	1	2	3	4	5
b) The activities in the curricula suggest that adults play a major role in their learning	1	2	3	4	5
c)There are elements in the curricula that motivate adult learners to continue with their learning	1	2	3	4	5
d)The curricula entail subjects that would equip adult learners for life.	1	2	3	4	5
e) The subjects that form part of the curricula are exciting and motivating	1	2	3	4	5
The Gradebook					
a) Learners appear to master what they are taught.	1	2	3	4	5
b) Learners appear to be motivated by what they are taught	1	2	3	4	5
c) Learners 'interest in the courses is generally lacking	1	2	3	4	5
d)Some learners seldom attend classes	1	2	3	4	5
e) Most learners are present regularly for their classes.	1	2	3	4	5

Comments on Student-centeredness in Curricula

Comments on the suitability of curricula and the motivation in grade book _____
