



International Journal of Sciences: Basic and Applied Research (IJSBAR)

ISSN 2307-4531
(Print & Online)

<http://gssrr.org/index.php?journal=JournalOfBasicAndApplied>



The Online Learning Experiences of Adults Students: An Analysis of their Socioeconomic Status, Gender, and Ethnicity at a Higher Learning Institution. Trinidad and Tobago

Valentine Smith MPhil Ph.D^{*}

*Senior Lecturer in the Academic Affairs Department Office, cc. General Education Faculty Department.,
Cipriani College of Labour and Cooperative Studies, Trinidad and Tobago
Email: smithv@cclcs.edu.tt; valan141@outlook.com*

Abstract

The research seeks to investigate the relationship between adult students' online learning socioeconomic status, ethnicity and gender, and academic performance. The study consisted of a random sample of 280 adult students was selected from an adult student population of 1085. A google questionnaire was used to collect and analyse the data. Quantitative-deductive descriptive statistics methods were used such as mean, mode, standard deviation, Chi-square, Independent Samples T-Tests, and inferential statistics ANOVA. The findings have identified variations in adult students' age, gender, ethnicity, socioeconomic status, religion, cultural beliefs, and how they all impact on students' academic performance on the google courses classroom platforms.

Keywords: online learning; adult students; socioeconomic status; ethnicity; gender; variations; academic performance.

^{*} Corresponding author.

1. Introduction

Adult Education refers to the process whereby an individual who no longer attends school on a regular and full-time basis, undertake sequential and organized activities with the conscious intentions of bringing about change in information, knowledge understanding, or skills appreciation and attitudes to identify and solve personal and community problems. UNESCO [1] looked at Adult Education as the entire body of organized educational activities provided for people who are not in the regular school and university system, generally fifteen years or older, and are matured with some responsibilities. Adult education is regarded as any education given to adult persons, men and women, and any instruction that makes it possible for them to learn to read and write. It offers adults who are denied the facilities of exposure to formal education an opportunity to go back and provide for themselves. Reference [2] saw adult education as that which enables people to be aware of both individual and community needs and provides the types of learning that enables recipients to cope successfully with current problems. As technology continually changes the global marketplace, it is doing the same to education. Lecturers have an enormous impact on the lives of their students, both in and out of the classroom, and through their instructions, there are techniques available to ensure that students remain engaged. One such method is by using technology, specifically online/virtual learning to not only captivate student interest but to reduce the already wide chasm that exists between students with and without the means to an equitable education. This research focus is on adults' on-line learning as being contextual and situational-specific. Online learning provides a material-based educational experience, which means that although it can be a materials-rich and stimulating learning situation, it can also be a socializing impoverished, and lonely learning experience for some. Online learning is education that takes place over the Internet. It is often referred to as "e-learning." Online learning is learning that takes place across distance and not in a traditional classroom. The researcher proposes to investigate the experiences of adult students studying online and the issues surrounding socioeconomic status that are associated with the on-line learning process. Research has shown that gender differences or low SES can affect the educational opportunities of individuals [3]. Generally, women have fewer opportunities for formal education due to their family responsibilities or social expectations [4,5,6]. Reference [7] found that generally, gender differences are small for the developed countries considered, but this partly depends on the level of formal education. Overall, in countries where women tend to have lower levels of formal education than men, women are less likely to participate in adult learning. Very importantly is the paying of attention to the impact this may have on adults who have not recently taken part in education of participating in online learning.

2. Literature Review

The literature review aims to provide a general account of the views, opinions, theories, and findings of researchers who have dealt from differing angles with the same issues. The main variables of the study are as followed; socioeconomic status, race/ethnicity, sex/gender. The review is presented in sections firstly, with a review of the dependent variable, adult student's Online academic performance which will follow sequentially by the three independent variables.

2.1. Adults' Students in Online Education

According to the authors in [8], adult learners have an opportunity to engage in more interaction via the tools (e.g. discussion and chat) offered by online learning environments. By this way, they can develop virtual teaming skills and control their learning processes [8]. Interaction is also considered a key factor in online distance education and it is a good predictor of learning [9]. Online distance education also provides an opportunity for learners to engage in individualized instruction and thus learning processes can be planned in harmony with their characteristics [10]. Furthermore, one of the most fundamental and crucial benefits of online distance education for adults is the opportunity for life-long learning. In addition to the advantages of distance learning mentioned above, it is known that especially adult learners face particular challenges during their online education. Computer and Internet self-efficacy of adult learners play a significant role in online learning processes [11]. The learners who have a low perception of competency in these issues or the older adult learners might have challenges in this process, and this might cause learner dropout [12]. The problems related to learner support might also be experienced in Open Praxis, vol. 11 issue 1, January–March 2019, pp. 5–22 online distance education. It might be the case that adult learners do not have available support through the related resources and orientation programs as college students do. Therefore, they might feel isolated in their educational experience. The challenges they experienced in education might increase when they lack adequate support from their families and workplaces. In addition, adults have multiple roles such as spouse, parent, colleague, and student, each of which means additional responsibilities and workload [13]. These challenges might affect their learning success as well as causing dropout in online distance education programs or courses [14]. Increasing dropout rates are considered as a crucial problem in distance adult education. One study by Choi and Kim [15] examined meaningful factors affecting adult distance learners' decisions to drop out. Their study found that some of the factors affected adult learners' decisions to persist in or drop out of the online degree programs such as basic physical constraints from work, scholastic aptitude, family/personal issues, motivation for studying, academic integration, interaction, and motivation [15]. In another major study, Lee, Choi, and Kim [16] found that academic locus of control and metacognitive self-regulation skills were the more important factors influencing the dropout of adult learners. Reference [17] emphasized that future studies should be focused on preventing the dropout of adult online learners. These studies showed that the external and internal challenges faced by adults increased the likelihood of adult learners' dropout. Due to the high rates of dropout, particularly by adult learners as a result of the challenges they faced, student retention is now considered as a success factor in online distance education programs [18,19]. Thus, there is also an immense need to focus on these challenges in online distance education practices. Former research has concentrated on what to do to improve quality and adult learners' performance in online distance education [11,13]. In the review of the literature, it is observed that the relevant studies focus on a single component of distance adult education. For this reason, it seems significant to create a framework and explore the current landscape regarding the mentioned challenges for future studies in adult distance education. Recent studies addressed that a holistic understanding of the problems and challenges faced by adults in online distance education plays a key role in building effective online learning experiences [18,20]. Therefore, the purpose of this study is to investigate the challenges faced by adult learners in online distance education through the review of the related literature to create such a framework.

2.2. Socioeconomic Status (SES) and Education

Socioeconomic status (SES) is often measured as a combination of education, income, and occupation. It is commonly conceptualized as the social standing or class of an individual. When viewed through a social class lens, privilege, power, and control are emphasized. Furthermore, an examination of SES as a gradient or continuous variable reveals inequality in the access to and distribution of resources. A family's socioeconomic status is based on the family's income level, parental education level, parental occupation, and social status in the community (e.g., contacts within the community, group associations, and the community's perception of the family) [21,22]. The segregating nature of social class, ethnicity, and race may well reduce the variety of enriching experiences thought to be a prerequisite for creating readiness to learn among children. Social class, ethnicity, and race entail a set of 'contextual givens' that dictate neighbourhood, housing, and access to resources that affect enrichment or deprivation as well as the acquisition of specific systems [23]. In Trinidad and Tobago Osuji [24] found that socioeconomic status and the school had an impact on Form Five students' educational achievement. She also found that these two independent variables when combined with any of the other variables in her study always remained statistically significant while the other variable combinations were not statistically significant. Socio-economic status has also been shown to override other educational influences such as parental involvement [25,26]. It is believed that low socio-economic status negatively affects academic performance because low socio-economic status prevents access to vital resources and creates additional stress at home [21,27,28]. Children from low-socioeconomic status households are about twice as likely as those from higher socioeconomic status households to display learning-related behaviour problems. A mother's socioeconomic status was also related to the child's inattention, disinterest, and lack of cooperation in school [29].

2.3. Ethnicity and Education

Ethnicity has been defined in a number of ways [30,31,32]. We define it as a context-specific, multilevel (i.e., group-level, individual-level), multifactorial social construct that is tied to race and used both to distinguish diverse populations and to establish personal or group identity. The societal context in which people live determines whether they are ethnicized and that factors (e.g., numeric minority, religion) reinforcing their ethnicization. Ethnicity is considered context-specific because while a set of shared sociocultural characteristics may ethnicize residents of one country or region, it may not influence similar residents of another. As we define it, ethnicity comprises two dimensions; the attributional dimension describes the unique socio-cultural characteristics (e.g., culture, diet) of groups while the relational Ford and Harawa Page 3 dimension captures characteristics of the relationship between an ethnically defined group and the society in which it is situated. This two-dimensional definition contrasts with most social science definitions of ethnicity, which only describe what we refer to as the attributional dimension. They emphasize sociocultural characteristics as the basis for defining groups as ethnically distinct from one another and for establishing personal ethnic identity. The following standard definition of ethnicity reflects what we define as the attributional dimension: "a shared culture and way of life, especially as reflected in language, folkways, religious and other institutional forms, material culture such as clothing and food, and cultural products such as music, literature, and art"[33]. The attributional dimension is useful for understanding personal identity and group socio-cultural characteristics; however, alone it explains neither groups' social locations within society nor how societal forces can differentially influence the health of ethnically defined populations. Reference [34], explained that Trinidad and

Tobago is an ethnically and racially plural society where family life is characterized by marked divergences, correlated both with ethnic and economic distinction, in normative forms of mating, residential patterns, domestic economy, gender roles, child socialization. As children mature, other social relationships beyond the family context (e.g., peers, teachers) play an important role in their development. However, parents continue to play a role in influencing adolescent development [35]. Parents play an important role in relation to cultural factors such as ethnic identity that extend beyond adolescence [36]. Reference [36] found that family cultural socialization was related to greater ethnic identity exploration and commitment among emerging adults. Parents transmit attitudes and behaviours about race and ethnicity to their children through both implicit and explicit processes. This process has been termed “ethnic-racial socialization” [37]. Hughes and his colleagues [37] state that the ethnic-racial socialization construct has multiple indicators that include cultural socialization such as parental practices that teach children about their racial-or ethnic heritage and history that promote cultural and traditions ethnic pride either implicitly or explicitly. These dimensions of ethnic-racial socialization have been evaluated separately in the literature and are associated with different outcomes for youth.

2.4. Sex/Gender and Education

According to [38], girls now constitute the majority of secondary school enrolments in the Caribbean region, and girls’ school attendance and retention rates exceed those of boys for all ages cohorts [39]. Chevannes called for more attention to the patterns of gender socialization. He observed that although there are proportionality more unemployed young females than there are young males, young males are more visible on the streets and in public places [39]. Data from the Caribbean Examinations Council’s (CXC) examinations in the 1990s revealed that in general girls were writing examinations and excelling in subjects that were traditionally considered female. Boys achieved higher levels in those subjects that are considered the preserve of boys. In 2005, it was observed that girls in Trinidad and Tobago were outperforming boys in every subject area except mathematics at the Grade I level. In addition, in physics, girls were outperforming boys in grade I-III combined [40]. George found that these findings were similar to those observed in Barbados by [41,42] that on average, females attained higher levels than males, and females were more likely to be involved in traditional “male” subjects of mathematics and sciences at the highest levels of secondary schooling. However, it was noted that males attained at higher levels the longer they “stayed on” at school [42,43]. The results from the Caribbean are very similar to those observed in Australia and the United Kingdom (UK). In Australia, Collins and his colleagues [44] found that the average girl was outperforming the average boy in more subjects, while high achievers of both genders were performing about equally. The better performance of the average girl was in part, as a result of boys’ preference for particular high pay-off and/or traditional subjects even when they may not do well in those areas, resulting in a longer tail of boys bringing down the average performance in subjects highly rated by boys. In the United Kingdom (UK), evidence from a variety of sources shows that the gender gap is wide in English and narrow in Maths, with, on average, girls performing better than boys. The gender gap in the sciences has been traditionally very small. Girls tend to do better in the majority of GCSE subjects. Gender differences in pass rate are much narrower at A-Level than at GCSE but gender differences still exist [40]. According to Buchmann and his colleagues [45], most of the literature on children and adolescents attend to performance differences between girls and boys. Of course, achievement in elementary and secondary school is linked to the level of education one ultimately attains, including high school completion and graduation and

post-secondary education, college completion, and graduation and professional school experience.

3. Hypothetico-Deductive Methodology

The hypothetico-deductive scientific inquiry proceeds by formulating a hypothesis in a form that could conceivably be falsified by a test on observable data. A test that could and does run contrary to predictions of the hypothesis is taken as a falsification of the hypothesis. A test that could but does not run contrary to the hypothesis corroborates the theory. It is then proposed to compare the explanatory value of competing hypotheses by testing how stringently they are corroborated by their predictions.

3.1. Hypotheses

In this study, three hypotheses are developed from the literature review and the rationale behind the main assumptions of the research. The following null hypotheses are therefore presented:

H1: There is no significant relationship, at the .05 alpha level, between Adult students' socioeconomic status background and their on-line educational performance.

H2: There is no significant relationship, at the .05 alpha level, between Adult students' ethnicity and their on-line educational performance.

H3: There is no significant relationship, at the .05 alpha level, between Adult students' sex/gender and their educational performance.

4. Research Methodology

The sample size used in this research study was a population of 280. All calculations were conducted at a 95% level of confidence. Part 1 includes descriptive statistics tables showing variables, frequency, mean and standard deviation. Part 2 includes ANOVA test results for our first hypothesis as well as the Chi-squared test results for our second and third hypotheses.

4.1. Part 1

4.1.1. Section 1: Demographics

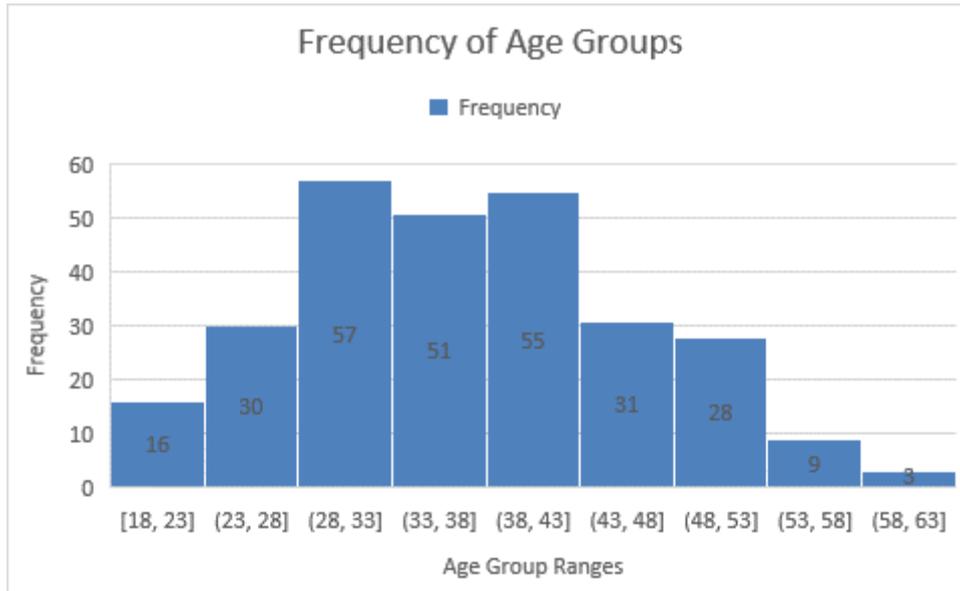


Figure 1: Frequency of Age Groups

From Figure 1 above we can see that the most frequently occurring age value of the population came from the age range between 28 to 33 years. The minimum age value captured was between the range of 18 and 23 years while the maximum age captured by the population was between the range of 58 and 63 years.

Table 1: Age of Population

Descriptive Statistic	Values
Mean	37.4
Standard Error	0.553
Median	37
Mode	30
Standard Deviation	9.256
Minimum	18
Maximum	61

From Table 1 above the most frequently occurring age value of the population captured was 30 as indicated by the mode. Our middle-valued age (when ordered from lowest to highest) resulted in a median of age 37. The average valued age of the population as captured by the mean was calculated to be 37.4 years with a standard deviation away from the mean of 9.256.

Table 2: Gender of the Population

Descriptive Statistic	Values
Mean	1.714
Standard Error	0.027
Standard Deviation	0.453

Note: Male = 1, Female = 2

From Table 2 above we calculated a mean of 1.714 with a standard deviation of 0.453 away from the mean.

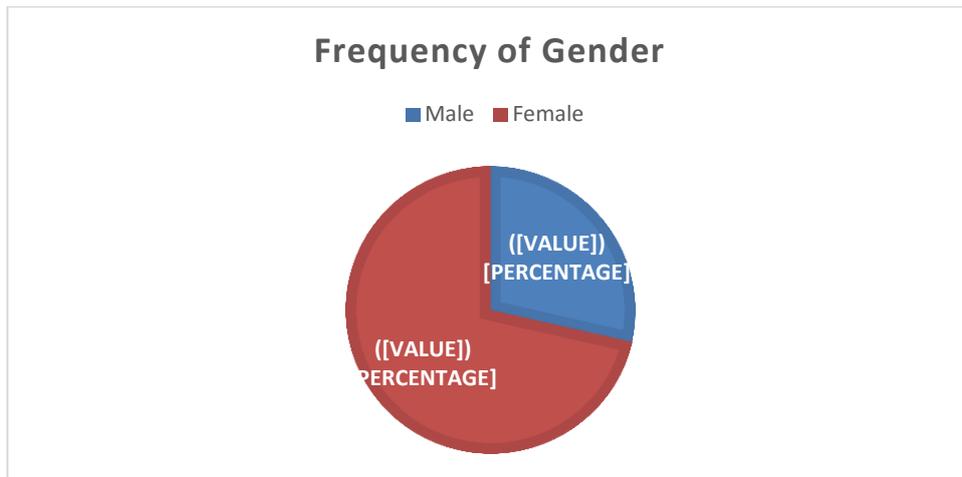


Figure 2: Frequency of Gender

From Figure 2 above we can see that most of the population at a percentage of 71.4 were female and the rest at a percentage of 28.6 were male.

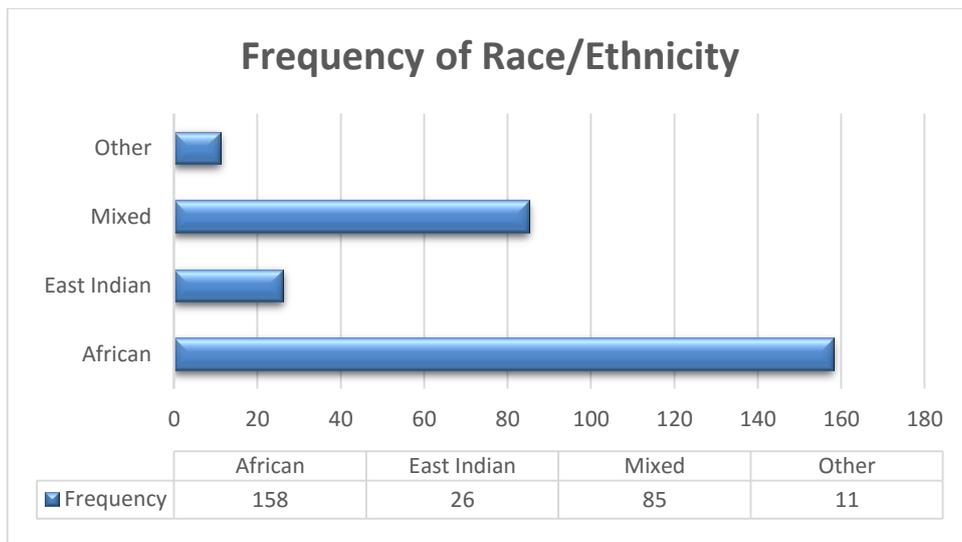


Figure 3: Frequency of Race/Ethnicity

From Figure 3 above we can see that most of the population at a value of 158 (56.4 %) were of African ethnicity, followed by 85 (30.4%) of mixed ethnicity. A value of 26 (9.3%) of the population were of east Indian ethnicity followed by 11 (3.9%) stating they were of some other ethnicity.

Table 3: Race/Ethnicity of Population

Descriptive Statistic	Values
Mean	1.818
Standard Error	0.060
Standard Deviation	0.998

Note: African = 1, East Indian = 2, Mixed = 3, Other = 4

From Table 3 above we calculated a mean of 1.818 with a standard deviation of 0.998 away from the mean.

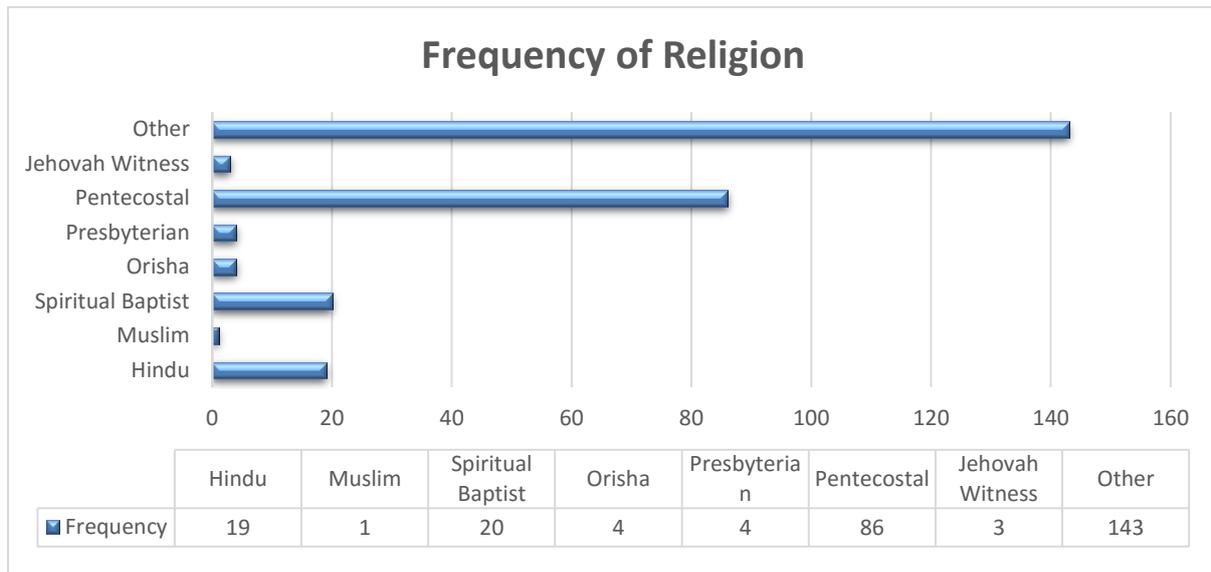


Figure 4: Frequency of Religion

From Figure 4 above we can see that most of the population at a value of 143 (51.1 %) individuals claimed to be of some other religion that was not listed in the survey. The next highest value of 86 (30.7 %) individuals of the population were Pentecostal followed by 20 (7.1 %) who were Spiritual Baptist. 19 (6.8 %) members of the population were Hindu and 4 (1.4 %) each comprised of Orisha and Presbyterian. 3 (1.1 %) members of the population were Jehovah Witness and 1 (0.4 %) individual was a Muslim.

Table 4: Religion of population

Descriptive Statistic	Values
Mean	5.225
Standard Error	0.088
Standard Deviation	1.475

Note: Hindu = 1, Jehovah Witness = 2, Muslim = 3, Orisha = 4, Other = 5, Pentecostal = 6, Presbyterian = 7, Spiritual Baptist = 8

From Table 4 above we calculated a mean of 5.225 with a standard deviation of 1.475 away from the mean.

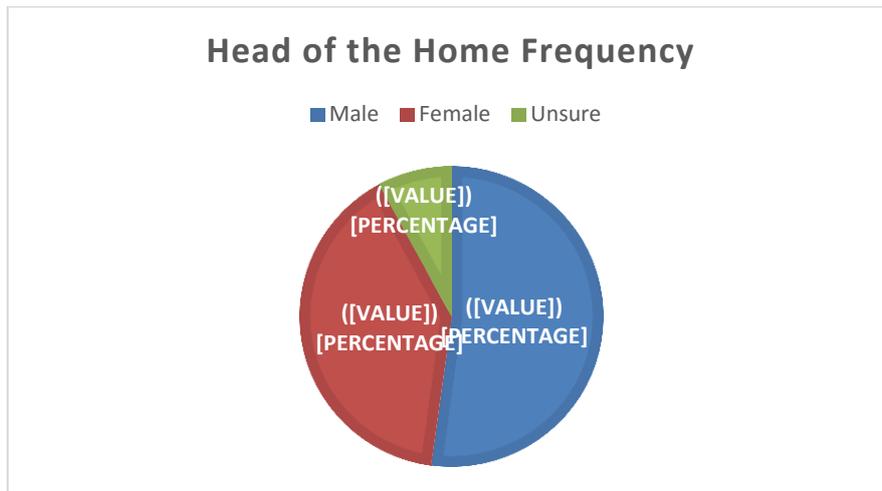


Figure 5: Head of Home Frequency

From Figure 5 above we can see that most of the population at a percentage of 52 stated the head of the home was male followed by 40% who claimed they were female. 8% of the population said they were unsure.

Table 5: Who is the head of the home

Descriptive Statistic	Values
Mean	1.557
Standard Error	0.038
Standard Deviation	0.637

Note: Male = 1, Female = 2, Unsure = 3

From Table 5 above we calculated a mean of 1.557 with a standard deviation of 0.637 away from the mean.

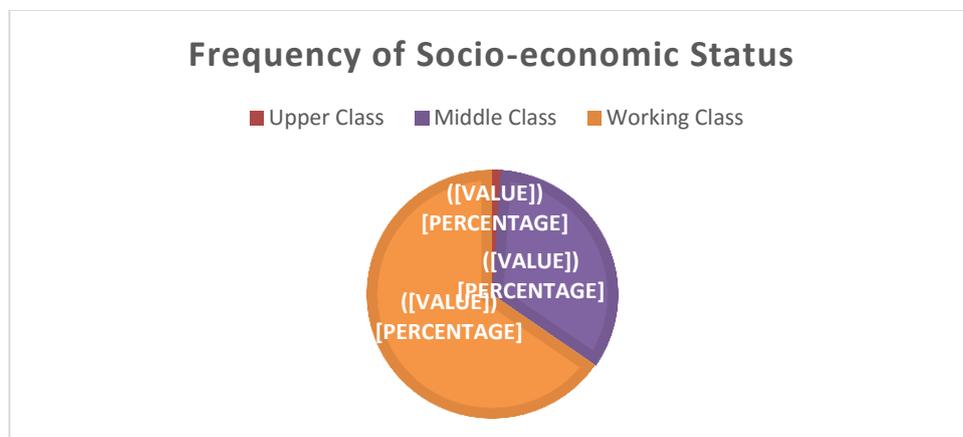


Figure 6: Frequency of Socio-economic Status

From Figure 6 above we can see that most of the population at a percentage of 65.36 stated the head of the home belonged to the working class followed by 33.57 % who claimed they belonged to the middle class. 1.07 % of the population said they belonged to the upper class.

Table 6: Socioeconomic status of population head of household

Descriptive Statistic	Values
Mean	2.643
Standard Error	0.030
Standard Deviation	0.502

Note: Upper Class = 1, Middle Class = 2, Working Class = 3

From Table 6 above we calculated a mean of 2.643 with a standard deviation of 0.502 away from the mean.

Table 7: Monthly income range value of the population in TT\$

Descriptive Statistic	Values
Mean	4.125
Standard Error	0.077
Standard Deviation	1.296

Note: 0 – 1500\$ = 1, 1501 – 2500\$ = 2, 2501 – 3500\$ = 3, 3501 – 5000\$ = 4, 5001\$ and over = 5

From Table 7 above we calculated a mean of 4.125 with a standard deviation of 1.296 away from the mean.

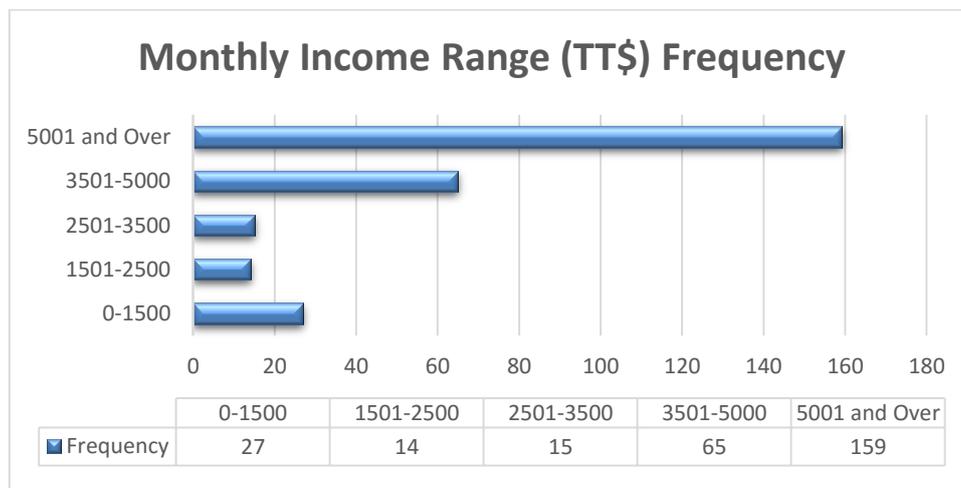


Figure 7: Monthly Income Range (TT\$) Frequency

From Figure 7 above we can see that most of the population at a value of 159 (56.8 %) individuals earns a monthly income within a range of 5001 and over. 65 (23.2 %) members of the population earns a monthly income between 3501 – 5000, 27 (9.6 %) earns between 0 – 1500, 15 (5.4 %) earns between 2501 – 3500 followed by 14 (5 %) earning between 1501 – 2500.

4.1.2. Section 2: Race/Ethnicity and Online Learning

Table 8: Frequency of the importance of cultural beliefs of the population

Importance of Cultural Beliefs	Frequency	Relative Frequency (%)
Very Important	106	37.9
Important	143	51.1
Not Important	31	11.1
Total	280	100

From Table 8 above most of the population at a percentage of 51.1 said their cultural beliefs are important to them, 37.9% claimed it was very important while the remainder of the population at 11.1% said they were not important.

Table 9: Importance of the cultural beliefs of the population

Descriptive Statistic	Values
Mean	1.6
Standard Error	0.041
Standard Deviation	0.681

Note: Important = 1, Very Important = 2, Not Important = 3

From Table 9 above we calculated a mean of 1.6 with a standard deviation of 0.681 away from the mean.

Table 10: Frequency of involvement in their group’s cultural activity

Involved in their group’s Cultural Activity	Frequency	Relative Frequency (%)
Yes	151	53.9
No	129	46.1
Total	280	100

From Table 10 above we can see that most of the population at a percentage of 53.9 said yes when asked if they were involved in their group’s cultural activity while 46.1% said no.

Table 11: Does the population take part in their group’s cultural activities

Descriptive Statistic	Values
Mean	1.461
Standard Error	0.030
Standard Deviation	0.499

Note: Yes = 1, No = 2

From Table 11 above we calculated a mean of 1.461 with a standard deviation of 0.499 away from the mean.

Table 12: Frequency of whether the population believe their religious beliefs can assist them with their classwork

Does the population believe their religious beliefs can assist them with their classwork	Frequency	Relative Frequency (%)
Yes	174	62.1
No	50	17.9
Unsure	56	20
Total	280	100

From Table 12 above we can see that most of the population at a percentage of 62.1% said yes when asked if they believe their religious beliefs can assist them with their classwork. 20% said they were unsure followed by 17.9% who said no.

Table 13: Can religious beliefs assist the population with their classwork

Descriptive Statistic	Values
Mean	1.579
Standard Error	0.048
Standard Deviation	0.804

Note: Yes = 1, No = 2, Unsure = 3, From Table 13 above we calculated a mean of 1.579 with a standard deviation of 0.804 away from the mean.

Table 14: Frequency of how often the population attends their religious place of establishment

How often the population attends their religious place of establishment	Frequency	Relative Frequency (%)
Weekly	106	37.9
Monthly	60	21.4
Annually	73	26.1
Never	41	14.6
Total	280	100

From Table 14 above we can see that most of the population at a percentage of 37.9 said they attend their religious place of establishment weekly followed by 26.1% saying they attend annually. 21.4% said they attend monthly while the rest of the population at 14.6% said they never attend.

Table 15: How often does the population attend their religious place of establishment

Descriptive Statistic	Values
Mean	2.175
Standard Error	0.065
Standard Deviation	1.095

Note: Weekly = 1, Monthly = 2, Annually = 3, Never = 4

From Table 15 above we calculated a mean of 2.175 with a standard deviation of 1.095 away from the mean.

4.1.3. Section 3: Sex/Gender and your on-line learning

Table 16: Frequency of how the population feels about attending CCLCS

How the population feels about attending CCLCS	Frequency	Relative Frequency (%)
Very Happy	128	45.7
Fairly Happy	132	47.1
Unhappy	14	5
Very Unhappy	6	2.1
Total	280	100

From Table 16 above we can see that most of the population at a percentage of 47.1 said they were fairly happy about attending CCLCS followed by 45.7% saying they were very happy attending CCLCS. The rest of the population at 5% said they were unhappy followed by 2.1% saying they were very unhappy attending CCLCS.

Table 17: How does the population feel about attending CCLCS

Descriptive Statistic	Values
Mean	1.636
Standard Error	0.041
Standard Deviation	0.680

Note: Very Happy = 1, Fairly Happy = 2, Unhappy = 3, Very Unhappy = 4

From Table 17 above we calculated a mean of 1.636 with a standard deviation of 0.680 away from the mean.

Table 18: Frequency of whether the population have family discussions concerning their education

Does the population have family discussions concerning their education	Frequency	Relative Frequency (%)
Yes	234	83.6
No	46	16.4
Total	280	100

From Table 18 above we can see that most of the population at a percentage of 83.6 said they have family discussions concerning their education while the rest of the population at 16.4% said they do not.

Table 19: Does the population have family discussions concerning their education

Descriptive Statistic	Values
Mean	1.164
Standard Error	0.022
Standard Deviation	0.371

Note: Yes = 1, No = 2

From Table 19 above we calculated a mean of 1.164 with a standard deviation of 0.371 away from the mean.

Table 20: Frequency of whether the population have good relationships with their lecturers

Does the population have good relationships with their lecturers	Frequency	Relative Frequency (%)
Yes	238	85
No	42	15
Total	280	100

From Table 20 above we can see that most of the population at a percentage of 85 said they have good relationships with their lecturers while 15% said they do not.

Table 21: Does the population have good relationships with their Lecturers

Descriptive Statistic	Values
Mean	1.15
Standard Error	0.021
Standard Deviation	0.358

Note: Yes = 1, No = 2

From Table 21 above we calculated a mean of 1.15 with a standard deviation of 0.358 away from the mean.

Table 22: Frequency of whether the population understand most of what they are taught in class

Does the population understand most of what they are taught in class	Frequency	Relative Frequency (%)
Yes	232	82.9
No	22	7.9
Unsure	26	9.3
Total	280	100

From Table 22 above we can see that most of the population at a percentage of 82.9 said yes when asked if they understood most of what they were being taught in class followed by 9.3% saying they were unsure. The rest of the population at a percentage of 7.9 said they don't understand most of what they were being taught in class.

Table 23: Does the population understand most of what they are taught in class

Descriptive Statistic	Values
Mean	1.264
Standard Error	0.037
Standard Deviation	0.618

Note: Yes = 1, No = 2, Unsure = 3

From Table 23 above we calculated a mean of 1.264 with a standard deviation of 0.618 away from the mean.

Table 24: Frequency of how successful the population are with online tests/quizzes (Grade Range %)

How successful the population are with online tests/quizzes (Grade Range %)	Frequency	Relative Frequency (%)
1 - 25 %	7	2.5
26 – 50 %	24	8.6
51 – 75 %	109	38.9
76 – 100 %	140	50
Total	280	100

From Table 24 above we can see that most of the population at a percentage of 50 score between 76 – 100 % on their online academic tests/quizzes followed by a percentage of 38.9 that score between 51 – 75 %. The rest of the population at a percentage of 8.6 score between 26 – 50 % while a percentage of 2.5 score between 1 – 25 % on their online academic tests/quizzes.

Table 25: How successful is the population with online tests/quizzes

Descriptive Statistic	Values
Mean	3.364
Standard Error	0.045
Standard Deviation	0.745

Note: 1- 25% = 1, 26 - 50% = 2, 51- 75% = 3, 76-100% = 4

From Table 25 above we calculated a mean of 3.364 with a standard deviation of 0.745 away from the mean.

Table 26: Frequency of how many hours the population spends studying weekly

How many hours the population spends studying weekly	Frequency	Relative Frequency (%)
Never	22	7.9
1 – 5 hours	147	52.5
6 – 10 hours	71	25.4
11 – 15 hours	27	9.6
15 and more hours	13	4.6
Total	280	100

From Table 26 above we can see that most of the population at a percentage of 52.5 said they spend 1 – 5 hours studying weekly followed by a percentage of 25.4 that said they spend 6 -10 hours studying weekly. 9.6% said they spend 11 – 15 hours studying weekly followed by 7.9% saying they never study. The rest of the population at 4.6% said they spend 15 and more hours studying weekly.

Table 27: How many hours does the population spend studying weekly

Descriptive Statistic	Values
Mean	2.507
Standard Error	0.056
Standard Deviation	0.939

Note: Never = 1, 1-5 hours = 2, 6-10 hours = 3, 11-15 hours = 4, 15 hours and more = 5

From Table 27 above we calculated a mean of 2.507 with a standard deviation of 0.939 away from the mean.

Table 28: Frequency of how much education the population intend to obtain in their lifetime

How much education does the population intend to obtain in their lifetime	Frequency	Relative Frequency (%)
Diploma Level	8	2.9
Associate Degree	27	9.6
University Degree	245	87.5
Total	280	100

From Table 28 above we can see that most of the population at a percentage of 87.5 said they intend to obtain a university degree in their lifetime followed by 9.6% who are satisfied with obtaining an associate degree. The rest of the population at a percentage of 2.9 said they would be satisfied with obtaining a diploma level of education.

Table 29: How much education would the population like to get in their lifetime

Descriptive Statistic	Values
Mean	2.846
Standard Error	0.026
Standard Deviation	0.433

Note: Diploma Level = 1, Associate degree = 2, University degree = 3

From Table 29 above we calculated a mean of 2.846 with a standard deviation of 0.433 away from the mean.

4.1.4. Section 4: Community group and on-line learning

Table 30: Frequency of the population that are part of a community/study group

Is the population part of a community/study group	Frequency	Relative Frequency (%)
Yes	62	22.1
No	218	77.9
Total	280	100

From Table 30 above we can see that most of the population at a percentage of 77.9 said no when asked if they were part of a community/study group followed by a percentage of 22.1 that said that they were part of one.

Table 31: Is the population part of a community/study group

Descriptive Statistic	Values
Mean	1.779
Standard Error	0.025
Standard Deviation	0.416

Note: Yes = 1, No = 2

From Table 31 above we calculated a mean of 1.779 with a standard deviation of 0.416 away from the mean.

Table 32: Frequency of whether the members in these community study/group encourage each other to study

Do the members in these community study/group encourage each other to study	Frequency	Relative Frequency (%)
Yes	66	23.6
No	39	13.9
N/A	175	62.5
Total	280	100

From Table 32 above we can see that a percentage of 23.6 said yes when asked if members of these community study/group encourage each other to study followed by 13.9% that said they do not. The rest of the population at a percentage of 62.5% said this question was not applicable as they do not belong to any such community study/group.

Table 33: Do the members in the population community study/group encourage each other to study

Descriptive Statistic	Values
Mean	2.389
Standard Error	0.050
Standard Deviation	0.844

Note: Yes = 1, No = 2, N/A = 3

From Table 33 above we calculated a mean of 2.389 with a standard deviation of 0.844 away from the mean.

Table 34: Frequency of the population that participate in any extracurricular activities

Does the population participate in any extracurricular activities	Frequency	Relative Frequency (%)
Yes	150	53.6
No	130	46.4
Total	280	100

From Table 34 above we can see that most of the population at a percentage of 53.6 said yes when asked if they participate in any extracurricular activities followed by 46.4% that said they do not.

Table 35: Does the population participate in any extracurricular activities

Descriptive Statistic	Values
Mean	1.464
Standard Error	0.030
Standard Deviation	0.500

Note: Yes = 1, No = 2

From Table 35 above we calculated a mean of 1.464 with a standard deviation of 0.500 away from the mean.

Table 36: Frequency of the population that indulge in social media

Does the population indulge in social media	Frequency	Relative Frequency (%)
Yes	238	85
No	42	15
Total	280	100

From Table 36 above we can see that most of the population at a percentage of 85 said they indulge in social media followed by a percentage of 15 that said they do not.

Table 37: Does the population indulge in social media

Descriptive Statistic	Values
Mean	1.150
Standard Error	0.021
Standard Deviation	0.358

Note: Yes = 1, No = 2

From Table 37 above we calculated a mean of 1.150 with a standard deviation of 0.358 away from the mean.

Table 38: Frequency of the population that sees social media having any negative impact on their education

Does the population see social media having any negative impact on their education	Frequency	Relative Frequency (%)
Yes	51	18.2
No	179	63.9
Unsure	50	17.9
Total	280	100

From Table 38 above we can see that most of the population at a percentage of 63.9 said that social media

doesn't have any negative impact on their education followed by a percentage of 18.2 saying it does have a negative impact on their education. The rest of the population at a percentage of 17.9 said they were unsure.

Table 39: Does the population see social media having any negative impact on their education

Descriptive Statistic	Values
Mean	1.996
Standard Error	0.036
Standard Deviation	0.602

Note: Yes = 1, No = 2, Unsure = 3

From Table 39 above we calculated a mean of 1.996 with a standard deviation of 0.602 away from the mean.

Table 40: Frequency of how many hours of internet/TV use the population allow themselves per week

How many hours of internet/TV use does the population allow themselves per week	Frequency	Relative Frequency (%)
0 – 4 hours	62	22.1
5 – 9 hours	90	32.1
10 – 14 hours	54	19.3
15 – 19 hours	28	10
20 and over	46	16.4
Total	280	100

From Table 40 above we can see that most of the population at a percentage of 32.1 allow themselves 5 – 9 hours of internet/TV use per week followed by a percentage of 22.1 that allow themselves 0 – 4 hours per week. 19.3% allow themselves 10 – 14 hours per week followed by 16.4% that use it for around 20 hours and more. The rest of the population at a percentage of 10 allows themselves 15 – 19 hours of internet/TV use per week.

Table 41: How many hours of internet/TV use the population allows themselves per week

Descriptive Statistic	Values
Mean	2.664
Standard Error	0.081
Standard Deviation	1.363

Note: 0-4 hours = 1, 5-9 hours = 2, 10-14 hours = 3, 15-19 hours = 4, 20 and over hours = 5

From Table 41 above we calculated a mean of 2.664 with a standard deviation of 1.363 away from the mean.

Table 42: Frequency of what purposes the internet/TV is used for

For what purposes is the internet/TV used for	Frequency	Relative Frequency (%)
More for research	150	53.6
More for entertainment	130	46.4
Total	280	100

From Table 42 above we can see that most of the population at a percentage of 53.6 uses the internet/TV more for research while a percentage of 46.4 uses it more for entertainment.

Table 43: For what purposes is the internet/TV used for

Descriptive Statistic	Values
Mean	1.464
Standard Error	0.030
Standard Deviation	0.500

Note: More for research = 1, More for entertainment = 2

From Table 43 above we calculated a mean of 1.464 with a standard deviation of 0.500 away from the mean.

4.2. Part 2 - Analysis of Hypothesis

4.2.1. Hypothesis 1

There is no significant relationship at the 0.05 alpha level between Adult students' socioeconomic status background and their online education performance.

To measure the students' online education performance data was collected on how the students performed on their online tests/quizzes via grade ranges.

The One-way Analysis of Variance (ANOVA) statistical method was used to test the hypothesis.

For the below hypothesis testing:

H_0 – Represents Null Hypothesis H_1 – Represents Alternative Hypothesis

μ_A – Represents True Mean online academic performance for Upper-Class SES

μ_B – Represents True Mean online academic performance for Middle-Class SES

μ_C – Represents True Mean online academic performance for Working-Class SES

H₀: $\mu_A = \mu_B = \mu_C$

H₁: There is at least one inequality.

The assumptions of the ANOVA are met as our data is normally distributed, observations are independent, samples were randomly selected, and variances of all independent groups are equal. Using a level of significance of 5% the sum of squares and mean square were calculated to obtain our F – test Statistic as shown in the table below.

Table 44: ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F – test		
	(SS)	(df)	(MS)	Statistic	P-value	
						F Critical Value
Between Groups	2.969	2	1.484	2.707	0.068	3.028
Within Groups	151.874	277	0.548			
Total	154.843	279				

Since the F – test statistic was found to be 2.707, and since it is lower than our F Critical value of 3.028 then this suggests that the test statistic falls under the non-rejection region and thus, we fail to reject our null hypothesis. This can also be seen following the p-value approach as our level of significance of 0.05 is lower than the p-value of 0.068 and hence we fail to reject our null hypothesis. Therefore, the conclusion using both the critical value and p-value approach leads to the same conclusion that the socioeconomic status background of the adult students is independent of their online education performance as there isn't evidence to suggest any inequality between the true mean online academic performance amongst all SES groups.

4.2.2. Hypothesis 2

There is no significant relationship at the 0.05 alpha level between Adult students' race/ethnicity and their online education performance. To measure the students' online education performance data was collected on how the students performed on their online tests/quizzes via grade ranges.

Chi-squared analysis was used to test the hypothesis.

For the below hypothesis testing:

H₀ – Represents Null Hypothesis H₁ – Represents Alternative Hypothesis

H₀: The race/ethnicity of the adult students is independent of their online education performance.

H₁: The two variables are dependent.

Using a level of significance of 5% a chi-squared test statistic was calculated from the observed and expected frequencies as shown in the table below:

Table 45: Chi-squared Table for Hypothesis 2

How successful the population are with tests/quizzes (Grade Range %)						
Race/Ethnicity of Population	Chi-squared Test Statistic	1- 25%	26 - 50%	51- 75%	76-100%	Grand Total
African		0.28	0.02	0.69	0.81	1.79
East Indian		0.65	2.23	0.82	0.00	3.70
Mixed		0.01	0.40	1.52	0.71	2.64
Other		0.28	0.00	1.22	1.14	2.63
Grand Total		1.21	2.65	4.24	2.66	10.76

Critical Value = 16.91 and p – value = 0.29

Since the Chi-squared test statistic was found to be 10.76, and since it is lower than our critical value of 16.91 then this suggests that the test statistic falls under the non-rejection region and thus, we fail to reject our null hypothesis. This can also be seen following the p-value approach as our level of significance of 0.05 is lower than the p-value of 0.29 and hence we fail to reject our null hypothesis. Therefore, the conclusion using both the critical value and p-value approach leads to the same conclusion that the race/ethnicity of the adult students is independent of their online education performance.

4.2.3. Hypothesis 3

There is no significant relationship at the 0.05 alpha level between Adult students’ sex/gender and their online education performance.

To measure the students’ online education performance data was collected on how the students performed on their online tests/quizzes via grade ranges.

Chi-squared analysis was used to test the hypothesis.

For the below hypothesis testing:

H_0 – Represents Null Hypothesis H_1 – Represents Alternative Hypothesis

H_0 : The sex/gender of the adult students is independent of their online education performance.

H_1 : The two variables are dependent.

Using a level of significance of 5% a chi-squared test statistic was calculated from the observed and expected

frequencies as shown in the table below:

Table 46: Chi-squared Table for Hypothesis 3

How successful the population are with tests/quizzes (Grade Range %)						
Sex/Gender of Population	Chi-squared Test Statistic	1- 25%	26 - 50%	51- 75%	76-100%	Grand Total
	Female	0	0.20	0.06	0.16	0.42
	Male	0	0.50	0.15	0.40	1.05
	Grand Total	0	0.70	0.21	0.56	1.47

Critical Value = 7.81 and p – value = 0.69

Since the Chi-squared test statistic was found to be 1.47, and since it is lower than our critical value of 7.81 then this suggests that the test statistic falls under the non-rejection region and thus, we fail to reject our null hypothesis. This can also be seen following the p-value approach as our level of significance of 0.05 is lower than the p-value of 0.69 and hence we fail to reject our null hypothesis. Therefore, the conclusion using both the critical value and p-value approach leads to the same conclusion that the sex/gender of the adult students is independent of their online education performance.

5. Discussion/Conclusion

It should be borne in mind that socioeconomic status, race/ethnicity, and sex/gender are important variables affecting participation in education; it is not merely access to online learning technology that has an impact. Despite the respondents in the online google questionnaire self-selected, sample, these adult students mostly females have already overcome the hurdles to return to education. The comments and feedback from the responses provide the researcher with some insights into the potential of online learning on the google classroom platform which could be extended to learning across the social spectrum. Respondents’ primary reasons for choosing their google class course had not been the online mode of delivery, most of them acknowledged both the importance of developing and using the google classroom platform skills and the advantages of learning in a multi-media environment provided by online learning. Learning online has transcended geographical, physical, visual, and temporal barriers to accessing education, and reduced sociological injustice. The respondents recognised that the online delivery of courses had enabled them to access education more easily and flexibly than traditional courses. Even the limited experience of online learning observed in this study appears to have empowered these participants in some way. In many cases, embarking on online learning seems to have reduced students’ sense of isolation, partly through their participation in online conferences but also through a feeling of inclusion and involvement with the wider Higher Learning communities in the society. The students’ increased general self-assurance engendered by their achievements within an online -rich milieu appears to be enabling students to play a greater part in their online learning communities, and this may lead to greater confidence to participate in the wider communities. This might have a

knock-on effect, helping to diminish social exclusion. However, the difficulty in teasing out the potential of online learning from that of learning in general needs to be acknowledged, and it may be that it was from the latter that participants derived benefit. Adult students come to Cipriani College of Labour and Cooperative Studies and to online learning with a variety of experiences, expertise, and expectations. These factors impact on their approach, enjoyment, and achievements in a novel learning environment. Online learning is promoted as being at the cutting edge of education, and the development and use of ICT skills are held up as crucial for economic and employment advancement. Despite this emphasis on ICT, adult students remain driven to return to learning by a thirst for knowledge on a particular topic, rather than by a curiosity to experience a different way of learning. The appeal of online learning for adult students remained more the acquisition of knowledge than the development of ICT skills. Generally, these adult students could see the benefit from taking their course and learning online, in terms of both personal and academic gain. Students appreciated the flexibility and convenience of being able to access course content using a variety of media, at times that suited them individually, and the contact with other students in the community online e-learning environment.

References

- [1]. UNESCO Institute for Education. (1997). *Adult Education: The Hamburg Declaration; the Agenda for the Future*. Hamburg: UNESCO Institute for Education. Retrieved from: <http://unesdoc.unesco.org/images/0011/001161/116114eo.pdf>.
- [2]. C.N. Anyanwu, (1987). *Developing adult education in Nigeria*. Ibadan, Nigeria: University Press Limited.
- [3]. T. Nesbit, (2006). 'What's the matter with social class,' *Adult Education Quarterly*, 56(3), 171-187.
- [4]. C. Gunawardena, Y. Rasanayagam, T. Leitan, K. Bulumulle, & A. Dort A-V (2006). 'Quantitative and qualitative dimensions of gender equity in Sri Lankan higher education', *Women's Studies International Forum*, 29, 562-571.
- [5]. World Bank (2005). *World development report 2006: Equity and development*, New York: Oxford University Press.
- [6]. World Bank (2007). *2007 world development indicators*, Washington, DC, World Bank.
- [7]. R. Desjardins, K. Rubenson, & M. Milana, (2006). *Unequal chances to participate in adult learning: International perspectives*, Paris, France: United Nations Educational, Scientific and Cultural Organization. *Fundamentals of Educational Planning* 83.
- [8]. K. J. Kim, S. Liu, & C.J. Bonk, (2005). Online MBA students' perceptions of online learning: Benefits, challenges, and suggestions. *The Internet and Higher Education*, 8(4), 335-344. Retrieved from <https://doi.org/10.1016/j.iheduc.2005.09.005>.
- [9]. A.G. Picciano, (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous Learning Networks*, 6(1), 21-40. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.98.6506>.
- [10]. B. Means, Y. Toyama, R. Murphy, M. Bakia, & K. Jones, (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. Washington, DC: US Department of Education. Retrieved from http://repository.alt.ac.uk/629/1/US_DepEdu_Final_report_2009.pdf.

- [11]. E. Johnson, R. Morwane, S. Dada, G. Pretorius, & M. Lotriet, (2018). Adult Learners' Perspectives on Their Engagement in a Hybrid Learning Postgraduate Programme. *The journal of continuing higher education*, 66(2), 88–105. Retrieved from <https://doi.org/10.1080/07377363.2018.1469071>.
- [12]. S. Appana, (2008). A review of benefits and limitations of online learning in the context of the student, the instructor, and the tenured faculty. *International Journal on E-learning*, 7(1), 5–22. Retrieved from <https://www.learntechlib.org/primary/p/22909>.
- [13]. J. Thompson, & S. Porto, (2014). Supporting wellness in adult online education. *Open Praxis*, 6(1), 17–28. Retrieved from <https://doi.org/10.5944/openpraxis.6.1.100>.
- [14]. J.H. Park, & H.J. Choi, (2009). Factors Influencing Adult Learners' Decision to Drop Out or Persist in Online Learning. *Educational Technology & Society*, 12(4), 207–217. Retrieved from <https://www.jstor.org/stable/10.2307/jeductechsoci.12.4.207>.
- [15]. H.J. Choi, & B.U. Kim, (2018). Factors Affecting Adult Student Dropout Rates in the Korean Cyber-University Degree Programs. *The Journal of Continuing Higher Education*, 66(1), 1–12. Retrieved from <https://doi.org/10.1080/07377363.2017.1400357>.
- [16]. Y. Lee, J. Choi, & T. Kim, (2013). Discriminating factors between completers of and dropouts from online learning courses. *British Journal of Educational Technology*, 44(2), 328–337. Retrieved from <https://doi.org/10.1111/j.1467-8535.2012.01306.x>.
- [17]. N. Deschacht, & K. Goeman, (2015). The effect of blended learning on course persistence and performance of adult learners: A difference-in-differences analysis. *Computers & Education*, 87, 83–89. Retrieved from <https://doi.org/10.1016/j.compedu.2015.03.020>.
- [18]. L. De Paepe, C. Zhu, & K. DePryck, (2018). Drop-out, Retention, Satisfaction, and Attainment of Online Learners of Dutch in Adult Education. *International Journal on E-Learning*, 17(3), 303–323. Retrieved from <https://www.learntechlib.org/primary/p/174173>.
- [19]. M. Martinez, (2003). High attrition rates in e-learning: Challenges, predictors, and solutions. *The E-Learning Developers' Journal*. Retrieved from https://www.elearningguild.com/pdf/2/071403_MGT-L.pdf.
- [20]. V.C. Wang, (2011). Online Adult Education: Policy, Access, Completion, and Equity. In *Encyclopaedia of Information Communication Technologies and Adult Education Integration* (pp. 506–520). IGI Global.
- [21]. W.H. Jeynes, 2002. Examining the Effects of Parental Absence on the Academic Achievement of Adolescents: The Challenge of Controlling for Family Income. *Journal of Family and Income Issues* 23(2).
- [22]. D.D. Korir, & F. Kipkemboi, 2014. An Assessment of the Influence of Family Background on Students' Academic Performance in Vihiga County, Kenya. *International Journal of Advanced Research*, 2(2):1312-1318.
- [23]. K. Crnic, and G. Lamberty, 1994. Reconsidering School Readiness: Conceptual and Applied Perspectives. *Early Education and Development* 5(2)99-105.
- [24]. R.C. Osuji, 1987. 'The Effect of Socio-Economic Status on the Educational Achievement of Form Five Students in Trinidad.' Institute of Social and Economic Research. The University of the West Indies, St Augustine, Trinidad.

- [25]. R.B. McNeal, 2001. Differential Effects of Parental Involvement on Cognitive and Behavioural Outcomes by Socio-economic Status *Journal of Socio-economic status* 30(2): 171.
- [26]. L.N. Makewa, E. Role, and F. Otewa, 2012. Parental Factors Affecting Academic Achievement of Grade Six Pupils in Kisumu City, Kenya. *International Journal of Asian Social Science*, 1984-1997.
- [27]. M.K. Eamon, 2005. Social-demographic, School, Neighbourhoods, and Parenting Influences on Academic Achievement of Latino Young Adolescents. *Journal of Youth and Adolescence*, 34(2):163-175.
- [28]. K. Majoribanks, 1996. Family Learning Environments and Students' Outcomes. A Review. *Journal of Comparative Family Studies* 27(2):373-394).
- [29]. P.L. Morgan, G. Farkas, M.M. Hillemeier, and S. Maczuga, 2009. Risk Factors for Learning-related Behaviour Problems at 24 Months of Age: Population-based estimates. *Journal of Abnormal Child Psychology* 37:401-413.
- [30]. J. Yinger, (1985). Ethnicity. *Annual Review of Sociology*, 11, 151-180. Retrieved January 5, 2021, from <http://www.jstor.org/stable/2083290>.
- [31]. Senior PA, R. Bhopal. (1994). Ethnicity as a variable in epidemiological research. *BMJ (Clinical research ed.)*, 309(6950), 327–330. Retrieved from <https://doi.org/10.1136/bmj.309.6950.327>.
- [32]. M. Kagawa-Singer. From genes to social science: impact of the simplistic interpretation of race, ethnicity, and culture on cancer outcome. *Cancer* 2001;91 (1, Suppl.):226–232. [PubMed: 11148584].
- [33]. A.G. Johnson. *The Blackwell Dictionary of Sociology: A User's Guide to Sociological Language*. Malden, MA: Blackwell Publishers; 2000. Ethnicity; p. 109-110.
- [34]. P. Burnham. 2008. Education and Social Change in Trinidad and Tobago, 215-335, in Smith, M. G., Comitas, L., Burnham, P., Harewood, J. and Llobera, J., *Education and social change in the Creole Caribbean, USA: Comitas Institute for Anthropological Studies*, [http://www.cifas.us/sites/g/files/g536796/f/Ed%26Society Creole Carib.pdf](http://www.cifas.us/sites/g/files/g536796/f/Ed%26Society%20Creole%20Carib.pdf), accessed 7 July 2013.
- [35]. L.V. Scaramella, R.D. Conger, R. Spoth, and R.L. Simmons. 2002. Evaluation of a Social Contextual Model of Delinquency: Cross-study Replication. *Child Development*, 73: 175-195.
- [36]. L.P. Juang, and M. Syed. 2010. Family Cultural Socialization Practices and Ethnic Identity Among College-going Emerging Adults. *Journal of Adolescence* 33(3):347-354.
- [37]. D. Hughes, J. Rodriguez, E.P. Smith, D.J. Johnson, H.C. Stevenson, and P. Spicer. 2006. Parents' Ethnic-racial Socialization practices: A Review of Research and Directions or Future Study. *Developmental Psychology* 42:747- 770.
- [38]. R. Reddock. 2009. "What Now for Caribbean People and their Leaders? Reflections on the Current Economic and Social Crisis: A Gender Perspective." 10th W.G. Demas Memorial Lecture, Tuesday 26, May. Providenciales, Turks & Caicos Islands.
- [39]. B. Chevannes. 1999. "What We Sow is What We Reap –Problems in the Cultivation of Male identity in Jamaica. Kingston, Jamaica: Grace Kennedy, Foundation.
- [40]. J.M. George. 2005. Gender Differences in Enrolment and Achievement: a Preliminary Assessment of the Performance of Trinidad and Tobago Students in CXC-CSEC Examinations (2000-2004). Port of Spain, Trinidad: Ministry of Education.
- [41]. P. Kutnick. 1999. Quantitative and Case-based Insights into Issues of Gender and School-based

Achievement: Beyond Simplistic Explanation. *Curriculum Journal* 10(2):253-283.

- [42]. P. Kutnick, V. Jules, and A. Layne. 1997. Gender and school achievement in the Caribbean (Department for International Development. Education Research; Serial No. 21). London: Department for International Development.
- [43]. N. Goldberg, and R. Bruno. 1999. Male Underachievement in Dominica: Extent, Causes, and Solutions. Final report. Roseau, Dominica: Basic Education Reform Project, Ministry of Education, Sports, and Youth Affairs.
- [44]. C. Collins, J. Kenway, and J. McLeod. 2000. Factors Influencing the Educational Performance of Males and Females in Schools and their Initial Destinations after Leaving School. Canberra, Australia: Department of Education, Training, and Youth Affairs.
- [45]. C. Buchmann, T.A. DiPrete, & A. McDaniel. (2008). Gender inequalities in education. *Annual Review of Sociology*, 34, 319-337.