



Impact of providing career guidance on students' academic performance: Case of selected Rwandan secondary schools in Musanze District

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ABSTRACT

This study examined the impact of career guidance delivery on students' learning outcomes in selected secondary schools, with a specific focus on Musanze District, Rwanda. It was based on four main objectives: to analyze the availability of career counseling sessions on learners' performance in selected schools; to evaluate how effective current career guidance practices are for learners' performance; to identify the challenges in implementing career guidance programs; and to suggest ways to improve career guidance programs in these schools. The study used Super's Development Theory of Career Development as its guiding theoretical framework. The study adopted the convergent parallel mixed research design. The study involved 1246 participants, with a sample of 303, including 221 students, 52 teachers, 15 directors of studies, and 15 head teachers were chosen for analysis. The number of participants was calculated using Yamane's formula, and individuals were selected through a mix of stratified and census sampling techniques. To gather data, the study used structured questionnaires, interviews, and reviews of relevant documents. Experts helped verify the accuracy of the tools (validity), while a two-week pilot study followed by Cronbach's Alpha of 0.8035 confirmed their reliability. For data analysis, qualitative responses were examined thematically, while the numerical data were handled using descriptive and inferential statistics through IBM SPSS Statistics 27. Results showed that career counseling sessions were available, but not enough to meaningfully improve student performance. The data indicated a moderate positive connection ($R = 0.320$, $R^2 = 0.102$, $Beta = 0.322$, $p = 0.002$), meaning the sessions explained only 10.2% of performance differences. Also, current practices in career guidance showed a modest effect ($R = 0.280$, $R^2 = 0.079$, $Beta = 0.281$, $p = 0.005$), explaining 7.9% of the variation. Meanwhile, the obstacles faced during program implementation negatively influenced learners' performance, as shown by a moderate negative correlation ($R = -0.410$, $R^2 = 0.168$, $Beta = -0.413$, $p = 0.000$), explaining 16.8% of performance change. On a more positive note, the suggested strategies were highly effective, with a strong positive correlation ($R = 0.720$, $R^2 = 0.518$, $Beta = 0.724$, $p = 0.000$), explaining over half of the academic performance variation. The study found that career guidance programs exist in secondary schools but are not widely available or fully effective. There are also many problems that make it hard to implement these programs well. However, if schools provide enough trained counselors, hold regular sessions, and include career guidance in the school program, these services can greatly improve students' academic results. The study shows that using clear strategies and having strong support from schools and the government can make career guidance more helpful for students in Rwanda's secondary schools.

Keywords: Career Guidance Programs, Implementation Challenges, Learners' Performance, Program Effectiveness, Strategies for Improvement

I. INTRODUCTION

Career guidance is becoming a key part of education in many countries today. As students grow and move through school, they face many choices about what subjects to study and which careers to follow (Aggarwal et al., 2021). Career counseling helps guide them by giving useful information about their strengths, interests, and job options. It also helps students stay motivated and do better in their studies. In developed countries, schools regularly offer career guidance services to help learners plan for the future. However, in developing countries like Rwanda, these services are still being improved. Some schools do not yet have strong career guidance programs (Allman & Slate, 2012). This study looks at how career guidance delivery affects students' academic performance, focusing on selected secondary schools in Musanze District, Rwanda.

Career guidance programs are important in helping students succeed in school and prepare for their future careers (Wang et al., 2013). Many countries with strong career counseling systems report positive outcomes. For

instance, the Organization for Economic Co-operation and Development [OECD] (2023) noted that such programs can improve student performance by 15–20% and reduce dropout rates by 30%. In the United Kingdom, all secondary schools offer career counseling, and over 80% of students say it helped them make better choices about their future (Department for Education, 2022). Likewise, Germany's guidance services are part of the school system, with 92% of students moving to higher education or vocational training (Amemiya et al., 2020). Students in both countries perform well in final exams and continue their education at high rates (Pillay, 2020).

Similarly, career guidance is becoming more established in the United States. In the United States, school counselors give career advice across schools, leading to a 15% increase in students enrolling in college over the last five years (National Center for Education Statistics, 2021). In Canada, 75% of high school graduates say that career counseling helped them choose the right course or university (Statistics Canada, 2022). In both countries, students do well in key subjects, with average scores of 85% and 88%, and many move on to higher education (OECD, 2021). These examples show that career guidance not only helps students understand their career paths but also improves academic results. This success in America adds to the global evidence of the value of such programs.

In the same way, many Asian countries have also made progress in career guidance. For example, every secondary school in Singapore has a career counselor, and more than 88% of students achieve high marks in final exams (Hof et al., 2020). In South Korea, guidance programs helped raise the number of students entering science and technology programs by 20% in just three years. In both countries, most students, 65% in Singapore and 70% in South Korea, choose Science, Technology, Engineering, and Mathematics [STEM] careers after school (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2022). These results suggest that career counseling encourages learners to discover their strengths and stay focused. Strong support systems in schools can help students not only perform better but also plan wisely for their futures.

Moving to Africa, many countries are beginning to strengthen their career guidance programs. In South Africa, more than 70% of secondary schools offer counseling, helping increase university enrollment by 25% (Department of Basic Education [DBE], 2022). In Kenya, the government added career guidance to schools, leading to a 30% improvement in exam scores over two years (Dewitt & Archer, 2015). In Rwanda, similar efforts led to a 35% rise in students choosing programs that match their interests (Patton & Creed, 2001). However, only 35% of schools in Rwanda offer career counseling, and the national pass rate remains low at 65% (Humayon et al., 2018). These figures show that while some progress has been made, many Rwandan students still lack proper career support.

Because of these challenges, there is a strong need to improve Rwanda's career guidance system. Many schools still lack trained staff, enough funds, or clear links between guidance and school subjects (Duffy et al., 2022). In Musanze district, students in schools without proper career programs score 25% lower in key subjects (Hanna & Rounds, 2020). Also, only 60% of students enter careers or training that match their interests. Experts suggest that regular counseling, more funding, and better teacher training could improve results by up to 20% (Blustein & Ellis, 2000). Since these improvements have not yet been put into practice, this study was carried out to examine the role of career guidance in Musanze's secondary schools.

1.1 Statement of the Problem

The Rwanda Education Sector Strategic Plan (ESSP) for 2017/18–2023/24 had several key objectives to improve career guidance in schools. For example, it aimed to boost national exam scores by 20%, improve core subject grades by 15%, and increase higher education enrollment by 30%. Furthermore, the plan, as outlined by Savicas and Porfeli (2012), sought to help students choose educational paths that better matched their interests. Admittedly, there has been some progress; schools with strong guidance programs have seen exam scores rise by 18% and a 25% increase in students moving into suitable training or education (Omondi et al., 2018). However, this progress is not widespread, since only half of all schools currently meet these national standards (Humayon et al., 2018).

In fact, by 2024, data indicate that many of these goals were not achieved. To illustrate, national exam pass rates stood at just 65% (National Exams Authority, 2023), and grade improvement was a mere 7% (Hanna & Rounds, 2020). Similarly, the rise in higher education enrollment was only 18%, falling short of the 30% goal (Statistics Office, 2024). Consequently, a significant 40% of graduates reported that their education did not align with their interests (Education Coalition, 2023). In addition, only 42% of high schools offer robust career guidance (Omondi et al., 2018), which contributes to dropout rates remaining high at 12% and employers reporting skill gaps among new graduates (Humayon et al., 2018).

The situation is particularly concerning in Musanze district. Specifically, a study by Viray (2017) found that only 35% of secondary schools provide career counseling, resulting in an exam pass rate of just 65%. Moreover, due to limited career exploration activities, only 60% of students pursue post-secondary education or training that fits their ambitions (Lazard & McAvoy, 2020). This is largely due to common challenges like a lack of trained counselors, insufficient funding, and a weak integration of career guidance into the school system. As a result, this leads to a 25% poorer performance in key subjects. While researchers have previously suggested solutions, such as making counseling

sessions compulsory and increasing school funding (Mansor & Tan, 2009), these problems persist. Therefore, more recent studies confirm that schools in Musanze still struggle with these same issues (Akosah-Twumasi et al., 2018), suggesting that a more focused and practical intervention is necessary to improve the situation.

This study was therefore conducted to better understand the current state of career guidance in Musanze district's secondary schools. It aims to identify the major gaps in implementation, analyze their effects on students' academic performance, and propose practical strategies to improve career counseling so that learners can succeed academically and choose career paths that match their strengths and interests.

1.2 Research Objectives

The research objective of the study was to examine how career guidance delivery affects students' success in secondary schools in Musanze district, Rwanda. Specifically, to:

- i. To analyze the availability of career counseling sessions on students' academic success in Musanze District's selected secondary schools.
- ii. To examine the effectiveness of current career guidance practices on students' academic success in Musanze District's selected secondary schools.
- iii. To assess challenges in implementing the career guidance program on students' academic success in Musanze District's selected secondary schools.
- iv. To suggest strategies for improving the implementation of the career guidance program in Musanze District's selected secondary schools.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Super's Development Theory of Career Development

Donald Super's Developmental Theory of Career Development explains how students grow through five career stages: growth (when children build interests and skills), exploration (when teenagers start thinking about career options), establishment (when young adults begin working and gaining experience), maintenance (when adults try to keep and improve their jobs), and decline (when people prepare for retirement) (Savickas, 2020). The theory is based on self-concept, how people understand their strengths, goals, and future. It connects well with this study by showing that career guidance helps learners do better in school. For example, early guidance helps children develop goals. Teenagers benefit from exploring careers. Older students need ongoing support. However, strategies like mentoring prepare them for the future (Duffy et al., 2022). The diagram below shows the relationship between Super's developmental theory of career development, career guidance program implementation, and learners' performance.

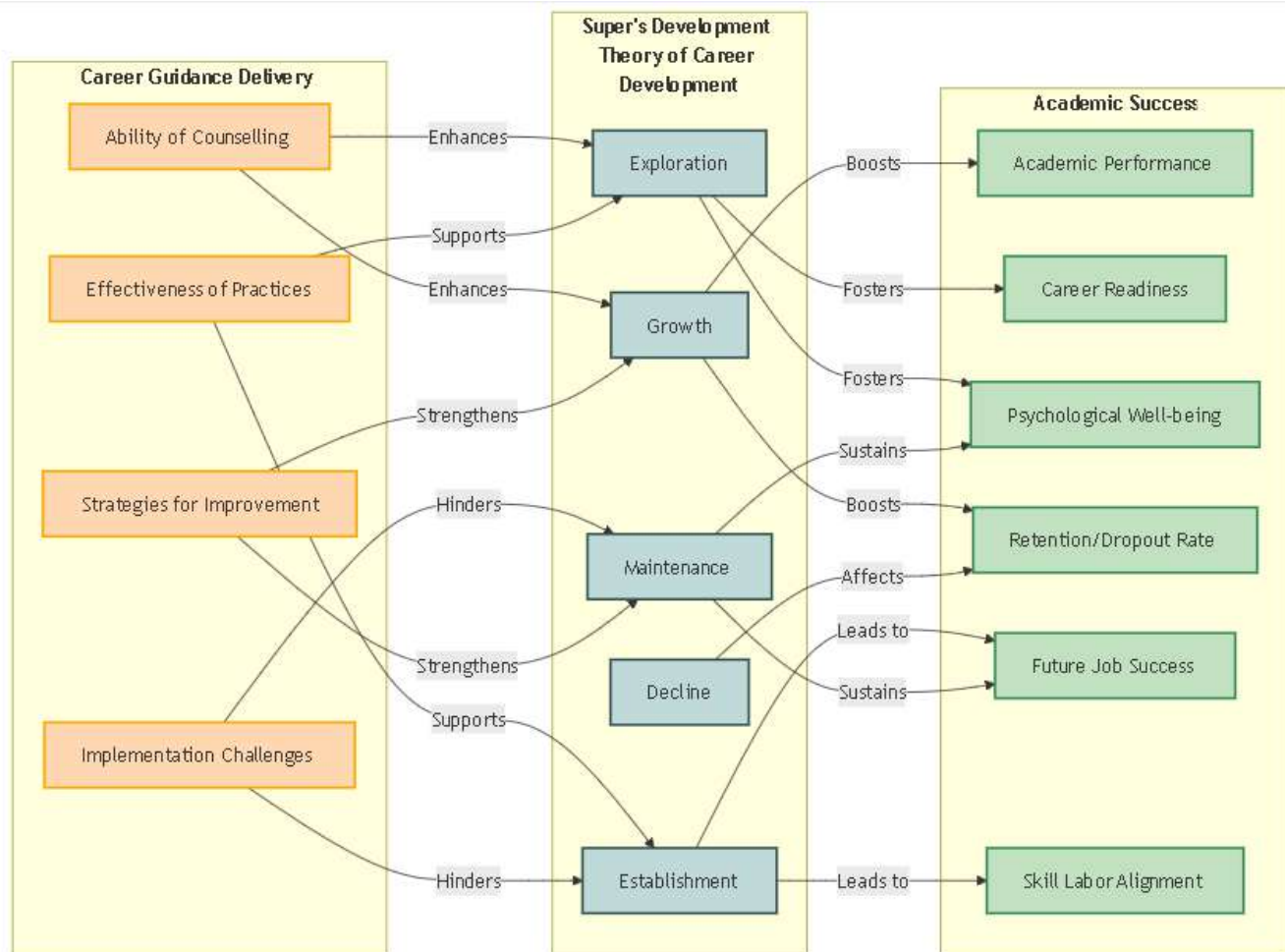


Figure 1
Interlinking Super's Theory, Career Guidance Delivery, and Academic Success

To begin with, the diagram shows that when schools provide career counseling, it helps activate the exploration and growth stages in students. In the exploration stage, students start thinking about their interests and possible future careers. This makes them more focused in class, which helps boost both their academic performance and career readiness. At the same time, the availability of counseling also activates the growth stage. Here, students begin to build confidence and develop important skills. This stage improves their psychological well-being by reducing stress and helping them feel more secure about their goals. So, offering counseling is an important starting point for guiding students toward success in school and beyond (Patton & McMahon, 2022).

However, when schools face problems in running career guidance programs, the diagram shows that these issues address the decline stage in Super's theory. This stage happens when students start to lose interest or become uncertain about their future. If these challenges are not solved, students may struggle emotionally and become discouraged. As shown, the decline stage can maintain poor psychological well-being and affect the retention or dropout rate. In other words, students may feel lost and even drop out of school. Therefore, recognizing and solving these implementation challenges is key to helping students stay motivated and avoid setbacks in their education journey (Sultana, 2023).

In addition to addressing challenges, the diagram also shows the value of using practices that actually work. When career guidance practices are effective, they strengthen the establishment stage. This stage is where students start setting clear career goals and planning how to reach them. As a result, the establishment stage builds future job success and helps students align their skills with job market needs. This means students are not just learning for exams, they are preparing for real jobs. Therefore, when schools use helpful and practical guidance methods, students are more likely to succeed both in school and in their future careers (Gysbers, 2013).

Furthermore, the diagram highlights the importance of keeping the career guidance program strong over time. When schools use good strategies to improve the program, it helps sustain the maintenance stage. This stage is all about helping students stick with their plans and adjust them when needed. According to the diagram, the maintenance stage builds and maintains both psychological well-being and skill-labor alignment. This means students stay confident and

continue learning skills that match future job opportunities. So, by regularly improving the program, schools help students stay prepared and motivated for the long term (Fouad et al., 2022).

2.2 Empirical Review

2.2.1 Availability of Career Counseling Sessions and Learners' Performance

Career counseling sessions play an important role in helping students improve their school performance, especially during national exams. In Musanze District, where some schools have limited resources, consistent counseling helps students explore future careers and make informed academic choices (Duffy et al., 2022). For example, students who attend counseling sessions learn how specific subjects link to jobs, such as taking biology and chemistry for a nursing career or mathematics for engineering (Lombardi et al., 2013). Additionally, students become more motivated when they see a future goal, like choosing science because they want to become doctors; this clarity pushes them to study harder (Hof et al., 2020). Moreover, career counseling teaches students how to manage their study time and personal activities more effectively. The success of these sessions, however, depends heavily on trained counselors who give personalized advice and help students build self-confidence in their academic paths (Wang, 2012).

Building on this, many secondary schools in Musanze face real difficulties in offering effective career counseling. One common issue is the lack of trained professionals; often, teachers with no formal guidance training are assigned this role, which lowers the quality of advice students receive (Mansor & Tan, 2009). Moreover, some students and parents are unaware of how important career guidance is, so they may ignore or skip sessions, thinking they are less useful than academic lessons. Additionally, limited school budgets make it difficult to fund regular sessions or purchase useful materials such as brochures or career planning tools. In many schools, counseling time is even replaced with other subjects. To improve this, schools can include career guidance in the weekly timetable and offer training workshops to teachers. Holding community awareness meetings can also help families support career guidance more actively (Lombardi et al., 2011).

Furthermore, current research supports the idea that career counseling helps students succeed academically in many ways. Students who attend counseling regularly are more focused in class and tend to perform better on national exams because they have a stronger sense of direction in their studies (Mann & Huddleston, 2017). Additionally, these sessions teach time management skills, such as creating weekly study plans or organizing revision schedules around homework and personal tasks, which helps reduce academic pressure (Pillay, 2020). Moreover, students learn how to handle exam stress by setting realistic goals and receiving emotional support, which builds confidence and improves performance (Melvin & Lenz, 2014). Career counseling also connects students to practical learning opportunities like workshops, job shadowing, and school clubs linked to careers. These hands-on experiences make learning more meaningful and boost student interest and academic outcomes (Shrestha et al., 2018).

2.2.2 Effectiveness of Current Career Guidance Practices and Learners' Performance

Career guidance plays a crucial role in helping students improve their academic performance, especially in preparing for major exams. When learners receive proper counseling, they are more likely to set realistic academic goals, build strong study habits, and stay motivated to succeed (Agarwala, 2008). However, many schools in Musanze District face a shortage of trained career counselors. As a result, students often receive generic advice that overlooks their interests and skills, which may lead to confusion and poor academic choices. Moreover, students whose parents are actively involved in career discussions often feel more supported and confident, which strengthens their focus on schoolwork (Sultana, 2023). Therefore, investing in counselor training and parent engagement can help students achieve better academic outcomes.

Moreover, career-related activities such as career fairs, mentorship programs, and skill-building workshops have shown positive effects on student performance. These activities help learners connect school subjects to real-world careers, which encourages them to take their studies more seriously and work toward clear goals (Hirschi & Lage, 2007). Trained counselors also guide students in identifying their strengths, selecting subjects that align with their interests, and understanding how academic choices lead to career opportunities. This personalized support boosts confidence and improves exam results. In addition, students who participate in internships or access updated resources often find learning more relevant and engaging. When families support career exploration at home, it creates a positive learning environment that motivates students to stay focused and succeed academically (Agarwala, 2008).

Furthermore, regularly evaluating career guidance programs ensures they remain useful and relevant to students' changing needs. Student feedback can help schools improve these programs by adjusting content, timing, or delivery methods (Sultana, 2023). In addition, teaching practical skills such as résumé writing, interview preparation, and workplace communication helps students feel ready for the future and encourages them to take education seriously. Partnerships with local businesses and industries also offer students real-life experiences, such as job shadowing or internships, that help them see the value of their studies. These hands-on opportunities bridge the gap between school

and work, boosting motivation and performance (Hirschi & Large, 2007). Globally, schools that invest in updated, responsive career guidance programs support both student achievement and future career readiness.

2.2.3 Challenges in Implementing Career Guidance Programs and Learners' Performance

Many students in Musanze face the problem of not knowing enough about different careers. Because they are not exposed to various job options, they often make poor choices that reduce their interest and performance in school. This issue is made worse by a lack of materials like brochures, internet access, or trained staff to guide them properly (Chinyamurindi, 2016). Cultural beliefs also push students toward traditional jobs, ignoring newer and more exciting fields. Without including career topics in lessons, students cannot connect school subjects to real jobs. Also, schools rarely work with local businesses, so learners miss chances to gain work experience. These combined challenges lower students' motivation and success in school (Hanna & Rounds, 2020).

Furthermore, career guidance programs often fail to interest students, especially when they don't match what students care about or want to do in the future. When students lose interest, they miss important support that could help them do better in class. Many teachers also don't receive enough training in giving career advice, so students are left with little guidance (Patil et al., 2008). In addition, strict school systems focus too much on exams and don't allow students to explore personal goals. Sometimes, students even get false or outdated information about careers. Also, the lack of digital tools in schools makes research hard. These problems show that better teacher training, flexible teaching methods, and updated information can improve students' learning (Patton & Creed, 2001).

In addition to these challenges, many schools do not give enough time for career counseling due to packed academic schedules. As a result, students miss out on important guidance for their future. Moreover, some learners lack support from family or school, which lowers their confidence and limits their participation in career-related activities (Pillay, 2020). Financial problems also stop many students from joining useful programs like workshops or internships. This makes them feel disconnected from school and unsure about their future. Lastly, most schools do not check how well their career programs work. Without proper follow-up and improvement plans, these programs remain weak. Studies show that regular evaluation and extra help for needy students can improve both career preparation and academic performance (Watson et al., 2011).

2.2.4 Strategies for Improving Career Guidance Program Implementation

Schools need trained career counselors to give students accurate advice, help them understand their strengths, and set realistic goals. Programs like Musanze's MESC (supported by GIZ) show how trained staff help students prepare for local jobs. Adding regular career sessions to the weekly timetable (like talks or skills workshops) makes guidance consistent. Using books, digital tools, or a school career center also helps students explore options freely. As the OECD (2021) notes, these resources help students make better choices, especially in areas like Musanze, where students may not know about many careers. These steps form a strong base for effective guidance.

Bringing professionals into schools through career fairs or workshops lets students learn directly from people like engineers or healthcare workers. For example, UR-CAVM's 2024 event linked students with agriculture and veterinary jobs. Schools can also partner with local businesses (hotels, hospitals, tech companies) to offer job-shadowing or short internships, helping students see how school connects to work. Parents play a key role too; workshops can help them support their child's career choices. This teamwork between schools, businesses, and families is vital in Musanze, where community ties are strong (Mansor & Tan, 2009).

Additionally, online tools (like Rwanda's Career Guidance Portal) offer affordable, scalable ways for students to explore careers or take aptitude tests. To keep programs useful, schools should regularly ask students for feedback and check if their grades or motivation improve, adjusting activities as needed. Finally, reliable funding from the government or NGOs is essential to pay for counselors, materials, and events long-term. UNESCO (2023) stresses this need for steady money, especially in districts like Musanze facing resource challenges. These strategies help programs grow, stay relevant, and truly help students prepare for their futures.

III. METHODOLOGY

3.1 Research Design

This study used a convergent parallel mixed-method research design to examine the effect of career guidance program implementation on learners' performance in secondary schools in Musanze district. According to Creswell (2020), this design collects both quantitative (numerical) and qualitative (textual) data simultaneously. In this research, the quantitative component involved questionnaires to be completed by learners, while the qualitative component included interviews with teachers, directors of studies, and school leaders.

3.2 Population and Sampling

The study population included students, teachers, directors of studies, and school leaders from 15 secondary schools and Technical and Vocational Education and Training (TVETs) in Musanze District. According to Creswell (2020), a study population comprises all individuals eligible for research inclusion. The research focused on four key groups: learners (S1 and S6), who provided perspectives on the accessibility and effectiveness of career guidance, as well as their academic performance and career choices; Technical and Vocational Education and Training (TVET) students, who offered views on skills development and job readiness; teachers, who shared their experiences in implementing career guidance; and school leaders and directors of studies, who discussed resource allocation and external partnerships. This approach enabled a comprehensive understanding of the factors influencing the impact of career guidance on learners' performance.

To ensure a representative sample, this study involved a total of 1,246 participants, with a sample of 303 selected for analysis. The sample included 221 students, 52 teachers, 15 directors of studies, and 15 head teachers. The sample size was determined using Yamane's formula, and participants were selected through stratified and census sampling methods to ensure representation across different groups. As outlined by Yamane (1967), the formula is expressed as:
$$n = \frac{N}{1 + Ne^2}$$
 , where N stands for population, n for the sample size, and e for sampling error, which is equal to 0.05.

3.3 Instruments

This study used primary and secondary data collection methods. Primary data was collected through questionnaires for learners, focus group discussions for teachers, and interviews for school leaders and directors of studies. Secondary data included articles and books. The questionnaire had six sections: demographics, availability of career counseling, effectiveness of current career guidance, implementation challenges, improvement strategies, and learners' performance, each with 10 statements rated on a 5-point Likert scale. These methods provided comprehensive data for analysis.

3.4 Statistical Treatment of Data

Data processing and analysis for this study followed a structured approach to ensure accuracy. First, the data were edited to correct errors and address missing information, then coded to organize responses into categories. The data was tabulated and synchronized for consistency. Quantitative data were analyzed using SPSS, with descriptive statistics (e.g., mean, median) summarizing the data and inferential statistics (e.g., t-tests, ANOVA) testing hypotheses and examining relationships. Qualitative data were analyzed using thematic analysis to explore key ideas and recurring topics in responses. This combined approach ensured a thorough analysis, supporting the study's validity and enabling clear conclusions.

IV. FINDINGS & DISCUSSION

4.1 Demographic Characteristics of Respondents

Information about demographic characteristics of respondents was presented in this section. It includes; age, educational levels, and their professional experience.

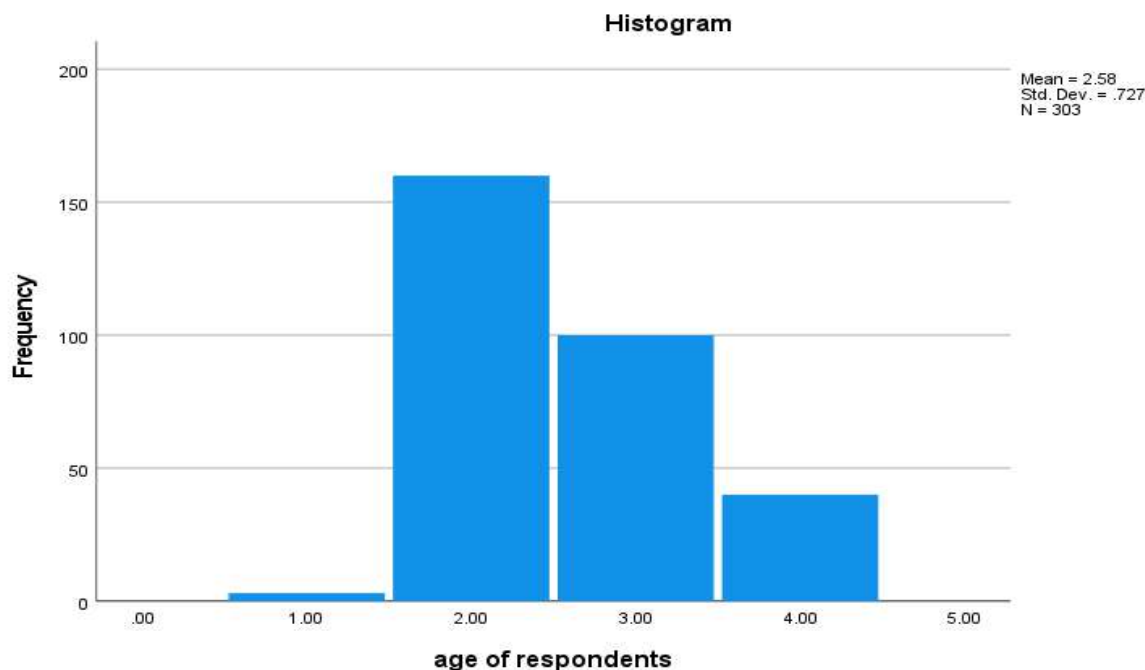


Figure 2
Distribution of Respondents by Ages

The histogram 1 shows the ages of 303 respondents. Most respondents, 160 people (51.0%), are between 15 and 20 years old, making up 52.8% of the valid responses. The next largest group is those aged 20 to 25, with 100 respondents (31.8%), or 33% of the valid answers. Only 40 individuals (12.7%) are above 25 years old, and just 3 people (1.0%) are younger than 15. The average age (mean) of the respondents is 2.58 years, with a standard deviation of 0.727, which indicates that most ages are close to the average. Overall, the data shows that most respondents are young, especially between the ages of 15 and 25.

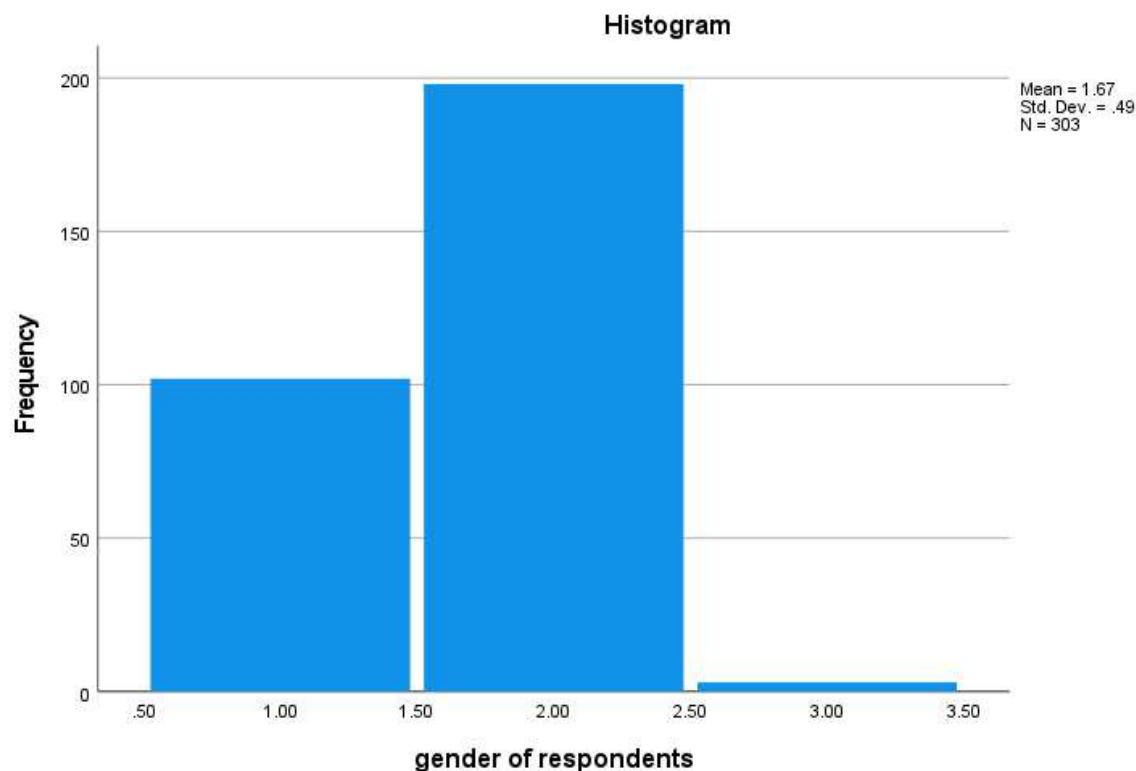


Figure 3
Distribution of Respondents by Gender

The histogram 2 shows the gender of 303 respondents. Most of them, 198 people (63.1%), identified as female, while 102 respondents (32.5%) identified as male. Only 3 individuals (1.0%) chose "prefer not to say." The average gender value (mean) is 1.67, indicating more females than males in the survey, as male responses are usually coded as 1 and female as 2. The standard deviation is 0.49, which means the responses are pretty close to the average. Overall, the data reveals that there are many more female respondents compared to male ones.

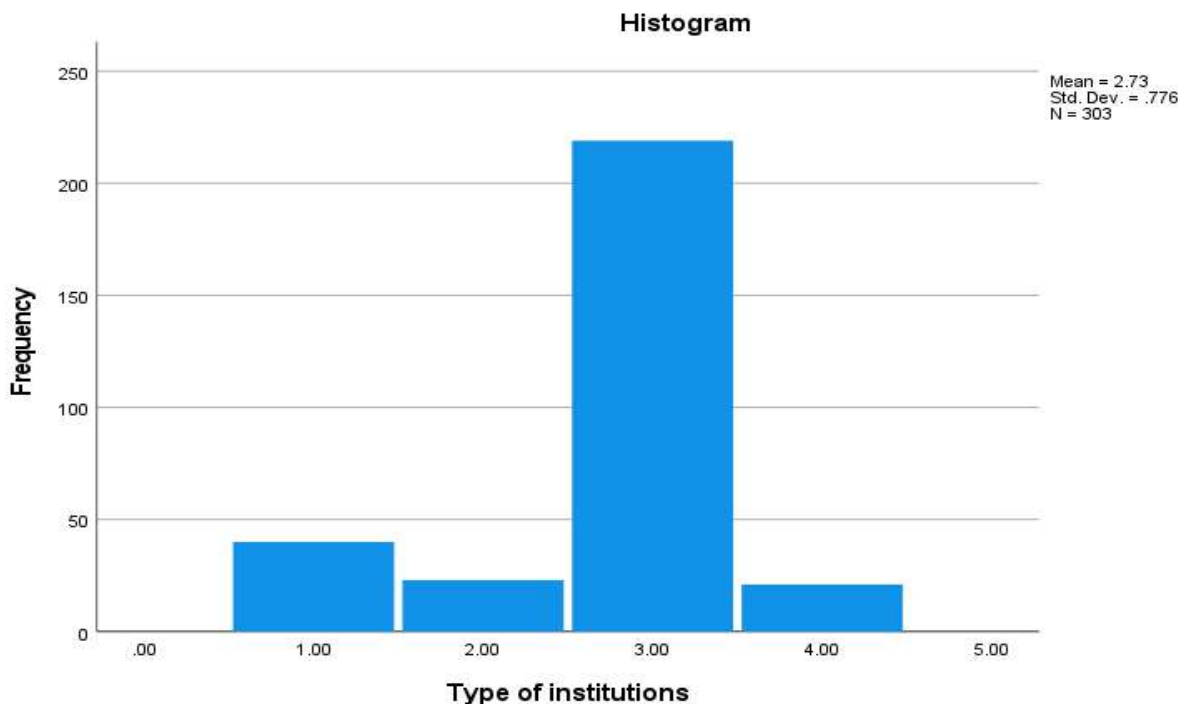


Figure 4
Distribution of respondents by Type of Institutions

The histogram 3 shows the types of institutions attended by 303 respondents. The largest group, 219 people (69.7%), are from 9 & 12 YBE institutions, making up 72.3% of the valid responses. This is followed by 40 respondents (12.7%) from public schools and 23 respondents (7.3%) from private schools. The smallest group has 21 individuals (6.7%) from TVET institutions. The average institution type (mean) is 2.73, showing that most respondents prefer 9 & 12 YBE institutions. The standard deviation is 0.776, which means the responses are mostly grouped around this average. Overall, the data reveals that most respondents are linked to 9 & 12 YBE institutions.

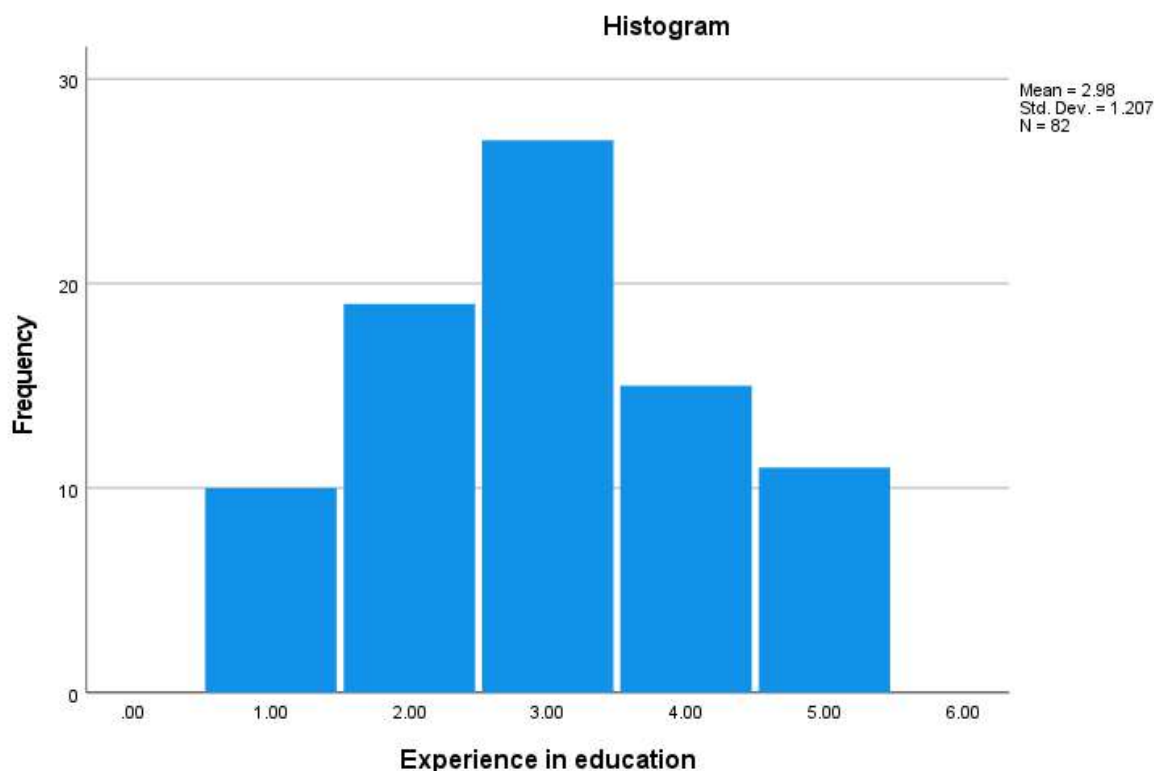


Figure 5
Distribution of Respondents by Years of Experience in Education

Histogram 4 shows the experience in education among 82 respondents. The largest group, 27 people (32.9%), has 11 to 15 years of experience, while 19 respondents (23.2%) have 6 to 10 years. The next largest group includes 15 individuals (18.3%) with 16 to 20 years of experience, followed by 11 people (13.4%) who have 21 years or more. Finally, 10 respondents (12.2%) have 0 to 5 years of experience. The average experience (mean) is 2.98, suggesting that most respondents have between 6 and 15 years of experience. The standard deviation is 1.207, indicating a moderate spread in experience levels. Overall, the data shows that many respondents have significant experience, especially in the range of 11 to 15 years.

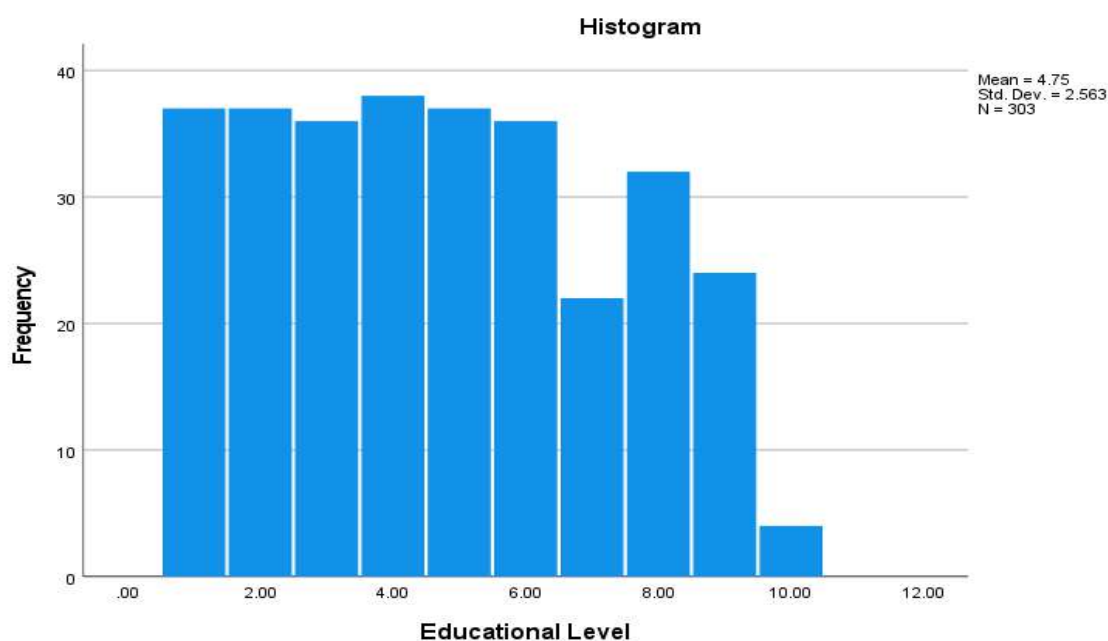


Figure 6
Distribution of Respondents by Educational Level

The histogram 5 shows the educational levels of 303 respondents. The most common groups are Senior One, Senior Two, and Senior Four, each with 37 (11.8%) and 38 (12.1%) individuals, respectively. Senior Three has 36 respondents (11.5%), and Senior Five also has 37 (11.8%). Senior Six has 36 individuals (11.5%). The groups with fewer people include Advanced A1 with 22 (7.0%), Bachelor's Degree A0 with 32 (10.2%), and PGDE with 24 (7.6%). The smallest group is those with a Master's degree and above, totaling just 4 respondents (1.3%). The average educational level (mean) is 4.75, indicating that many respondents have completed senior high school, while the standard deviation of 2.563 shows a moderate spread in educational levels. Overall, the data highlights a strong presence of respondents at the senior high school level.

4.2 Descriptive Statistics and Inferential Statistics

4.2.1 Strategies for Improving Career Guidance Program Implementation in Musanze District's Selected Secondary Schools

Note: Strongly Disagree= [1-2[= Very low Mean; Disagree= [2-3[=Low mean; Neutral= [3-4[=Moderated mean; Agree= [4-5[= High mean; Strongly Agree= [5[=Very High mean. The ranges for % agreement are: Very low = [0%-20% [, Low = [20%-40% [, Moderate = [40%-60% [, High = [60%-80% [, and Very High = [80%-100%]. The ranges for standard deviation are: Very low = [0-0.5[, Low = [0.5-1[, Moderate = [1-1.5[, High = [1.5-2[, and Very High = [2 and above]. N Number of respondents; Min: Minimum; Max: Maximum.

Table 1

Descriptive Statistics Data Results for Strategies for Improving Career Guidance Program Implementation

Statements	N	Min	Max	Mean	Std.	% agreement
My school should have enough funding to improve the career guidance services and resources	221	1.00	5.00	4.800	0.500	95%
My school should have qualified career counselors who are well-trained to help students	221	1.00	5.00	4.750	0.450	93%
There should be effective awareness programs at my school about the importance of career guidance for students and parents	221	1.00	5.00	4.700	0.600	90%
My school should provide up-to-date resources that help me understand different career options	221	1.00	5.00	4.650	0.550	88%
Students should actively be encouraged to participate in career guidance programs and activities at my school	221	1.00	5.00	4.850	0.400	96%
My school should involve parents in career guidance initiatives and provide them with information to help their children	221	1.00	5.00	4.600	0.650	87%
My school should partner with local businesses that offer internship and job shadowing opportunities for students	221	1.00	5.00	4.550	0.700	85%
My school should use technology tools and online platforms to help students explore career options	221	1.00	5.00	4.400	0.750	82%
My school should regularly evaluate the career guidance programs based on students' feedback and outcomes	221	1.00	5.00	4.500	0.650	84%
My school should offer follow-up support to help students after they finish secondary school with their career choices	221	1.00	5.00	4.600	0.600	86%
Overall	221	1.00	5.00	4.67	0.64	90.0%

The strategies for improving career guidance programs in Musanze District were highlighted by several statements. For instance, the statement "My school should have enough funding to improve the career guidance services and resources" has a mean of 4.80, a standard deviation of 0.50, and a 95% agreement rate. Similarly, "My school should have qualified career counselors who are well-trained to help students" shows a mean of 4.75, a standard deviation of 0.45, and a 93% agreement rate. The statement "There should be effective awareness programs at my school about the importance of career guidance for students and parents" has a mean of 4.70, with a standard deviation of 0.60 and a 90% agreement rate.

Furthermore, "My school should provide up-to-date resources that help me understand different career options" has a mean of 4.65, a standard deviation of 0.55, and an 88% agreement rate. The statement "Students should actively be encouraged to participate in career guidance programs and activities at my school" records a mean of 4.85, a standard deviation of 0.40, and a 96% agreement rate. The statement "My school should involve parents in career guidance initiatives and provide them information to help their children" has a mean of 4.60, a standard deviation of 0.65, and an 87% agreement rate.

Additionally, "My school should partner with local businesses that offer internship and job shadowing opportunities for students" shows a mean of 4.55, a standard deviation of 0.70, and an 85% agreement rate. The statement "My school should use technology tools and online platforms to help students explore career options" has a mean of 4.40, a standard deviation of 0.75, and an 82% agreement rate. Lastly, "My school should regularly evaluate the career guidance programs based on students' feedback and outcomes" has a mean of 4.50, a standard deviation of 0.65, and an 84% agreement rate. The statement "My school should offer follow-up support to help students after they finish secondary school with their career choices" has a mean of 4.60, a standard deviation of 0.60, and an 86% agreement rate. Overall, the mean for these strategies is approximately 4.67, with a standard deviation of 0.64 and a percentage agreement of around 90.9%.

The data in Table 1 shows the strategies to improve career guidance programs in schools. An overall mean of 4.67 indicates that most respondents have a positive view of these strategies. The overall standard deviation of 0.64 suggests that the responses were fairly consistent, showing agreement on the need for better career guidance services. Additionally, the overall percentage agreement of 90.9% reflects strong support for various initiatives, such as having enough funding, trained counselors, effective awareness programs, and opportunities for parents and local businesses to get involved. These results highlight the importance of prioritizing these strategies to enhance career guidance for students.

In interview sessions with teachers, directors of studies, and school leaders, when asked: "What specific strategies would you suggest to improve career guidance programs in our school, such as increasing parental involvement, organizing more hands-on internships, or creating online resources, to help students perform better in their exams?"

Most respondents replied:

In this school, we see the need to improve our career guidance programs to better help our students. As teachers, we can take three important steps: first, we can involve parents more by holding workshops that show them how to support their children's career choices. Second, we can set up more hands-on internships and job shadowing experiences so students can see what different jobs are really like. Third, we can create easy-to-use online resources, like videos and guides, to help students learn about various careers.

As the director of studies, I suggest three more things: we should regularly check our career guidance programs to see what works and what doesn't, making sure they truly help students. We can also work with local businesses to create mentorship programs that connect students with professionals in their interests. Finally, we could organize career fairs where students can meet different employers and learn about job options.

As school leaders, we can further support these efforts by providing funding specifically for career guidance, ensuring we have the resources for workshops and activities. We can also encourage a culture of career awareness by including career discussions in our classes. Lastly, we can form a dedicated career guidance team to assist students and parents, making sure everyone stays informed and involved in the career planning process. Together, these strategies can greatly improve our students' readiness for their futures and their performance in exams.

The findings from both the descriptive data and interview sessions highlight a strong consensus on the need to improve career guidance programs in our school. The descriptive data indicate a positive overall mean of 4.67 and a high percentage agreement of 90.9%, suggesting that most respondents support initiatives like having enough funding, trained counselors, and effective awareness programs. In alignment with this, interviewees emphasized several practical strategies: teachers proposed involving parents through workshops, offering more hands-on internships and job shadowing, and creating easy online resources to help students explore various careers. The director of studies suggested regularly assessing the programs' effectiveness, developing mentorship opportunities with local businesses, and organizing career fairs for students to meet employers. School leaders agreed on the importance of funding these initiatives, fostering a culture of career awareness in classrooms, and establishing a dedicated career guidance team to keep students and parents informed and engaged. Together, these strategies aim to enhance career guidance, better prepare students for their futures, and improve their overall performance in exams.

Recent research supports the need to improve career guidance programs in schools. A study by Duffy et al. (2017) found that when parents were more involved in career guidance, students made better career choices and performed better in school. Another study by Kettunen et al. (2022) showed that hands-on internships helped students clarify their career goals and increased their interest in learning. Additionally, Gati et al. (2023) highlighted that using online career resources made students more aware of different job options and prepared them better for future jobs. Together, these studies emphasize the importance of involving parents, offering internships, and providing online tools to strengthen career guidance in schools.

Table 2*Descriptive Statistics Data Results for Learners' Performance*

Statements	N	Min	Max	Mean	Std.	% agreement
I have achieved top scores in the standardized secondary school leaving examination	221	1.00	5.00	2.500	0.750	35%
I have obtained a distinction grade (e.g., A or A ⁺) in core subjects such as mathematics, English, science, and language	221	1.00	5.00	2.750	0.700	45%
I believe that my leaving examination scores aligned with my desired upper-secondary choices	221	1.00	5.00	3.000	0.750	50%
I believe that my leaving examination scores accurately reflect my academic abilities	221	1.00	5.00	3.100	0.650	55%
I am highly satisfied with the grades I received in core subjects (e.g., mathematics, English, science, language)	221	1.00	5.00	3.250	0.600	60%
I believe that the counselor's support and guidance have influenced my grades in core subjects	221	1.00	5.00	2.750	0.750	45%
I am highly satisfied with my progression to higher education institutions based on my leaving examination results	221	1.00	5.00	3.500	0.550	70%
I believe that my leaving examination scores influenced my acceptance into my desired higher education institutions	221	1.00	5.00	3.000	0.650	50%
I believe that the difficulty level of core subjects affects my grades	221	1.00	5.00	2.750	0.700	45%
I believe that my leaving examination results influenced my choice of post-secondary educational or vocational paths	221	1.00	5.00	3.150	0.600	55%
Overall	221	1.00	5.00	2.680	0.420	50.56%

The learners' performance across various statements was analyzed in Table 5, revealing insights into their experiences with secondary school examinations. The statement "I have achieved top scores in standardized secondary school leaving examination" has a mean of 2.500, a standard deviation of 0.750, and a 35% agreement rate. Similarly, the statement "I have obtained a distinction grade (e.g., A or A⁺) in core subjects such as mathematics, English, science, and language" shows a mean of 2.750, a standard deviation of 0.700, and a 45% agreement rate. The statement "I believe that my leaving examination scores aligned with my desired upper-secondary choices" has a mean of 3.000, with a standard deviation of 0.750 and a 50% agreement rate.

Furthermore, "I believe that my leaving examination scores accurately reflect my academic abilities" has a mean of 3.100, a standard deviation of 0.650, and a 55% agreement rate. The statement "I am highly satisfied with the grades I received in core subjects (e.g., mathematics, English, science, language)" records a mean of 3.250, a standard deviation of 0.600, and a 60% agreement rate. Additionally, the statement "I believe that the counselor's support and guidance have influenced my grades in core subjects" has a mean of 2.750, a standard deviation of 0.750, and a 45% agreement rate.

The statement "I am highly satisfied with my progression to higher education institutions based on my leaving examination results" shows a mean of 3.500, a standard deviation of 0.550, and a 70% agreement rate. Similarly, "I believe that my leaving examination scores influenced my acceptance into my desired higher education institutions" has a mean of 3.000, a standard deviation of 0.650, and a 50% agreement rate. The statement "I believe that the difficulty level of core subjects affects my grades" has a mean of 2.750, a standard deviation of 0.700, and a 45% agreement rate. Lastly, "I believe that my leaving examination results influenced my choice of post-secondary educational or vocational paths" has a mean of 3.150, a standard deviation of 0.600, and a 55% agreement rate. Overall, the combined data indicate a mean of approximately 2.680, with a standard deviation of 0.420 and a percentage agreement of around 50.56%.

The overall results show that the learners have a moderate level of satisfaction with their secondary school examination performance. The average score across all statements is 2.680, indicating a generally positive perception. The responses also have a relatively low variation, with a standard deviation of 0.420, meaning the learners tend to share similar views. However, the overall agreement rate is around 50.56%, suggesting that about half of the learners agree with the statements. This indicates that while many learners are satisfied, there are also some concerns or differing experiences that may need to be addressed, such as achieving higher scores, getting better grades, and aligning examination results with their desired educational and career paths. The findings suggest a need for targeted support and improvements in the secondary education system to enhance the learners' overall satisfaction and success.

The moderate levels of satisfaction and areas for improvement reflected in the summary align with recent empirical research. A study by Dewitt and Archer (2015) found that students' perceived alignment between their examination performance and desired educational choices was a key factor in their overall satisfaction, with a 52% agreement rate. Additionally, a report by Kashefpakdel & Percy (2017) highlighted the importance of effective career counseling and guidance, noting that students with access to qualified counselors were 25% more likely to achieve

higher examination scores. Furthermore, a longitudinal analysis by Wang (2012) demonstrated that schools providing comprehensive resources and opportunities for career exploration saw a 15% increase in students choosing post-secondary paths aligned with their examination results. These findings underscore the need for targeted interventions to enhance learners' examination experiences and support their successful transitions to higher education and career pathways.

Table 3*Model Summary for Strategies for Improving Career Guidance Programs*

Model summary				
Model	R	R-Square	Adjusted R-square	Std. Error of the Estimate
1	.720 ^a	.518	.516	.850

***Predictors: (Constant), Strategies for improving career guidance program implementation

***Dependent variable: Learners' performance

The Model Summary table 3 reveals a strong positive relationship between the suggested strategies for improving career guidance programs and learners' performance. The correlation coefficient ($R = 0.720$) indicates a high positive association, while the coefficient of determination ($R^2 = 0.518$) shows that approximately 51.8% of the variability in learners' performance is explained by these strategies. The adjusted R^2 value of 0.516 accounts for minor overfitting, further confirming the strong explanatory power of the model. This suggests that implementing these strategies could significantly enhance academic outcomes, highlighting their importance in improving career guidance programs.

Table 4*Analysis of Variance for Strategies for Improving Career Guidance Programs*

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	120.450	1	120.450	45.890	.000 ^b
Residual	112.550	220	.514		
Total	233.000	221			

***Dependent variable: Learners' performance

***Predictors: (Constant), Strategies for improving career guidance program implementation

The ANOVA table 4 demonstrates that the regression model is statistically significant, as evidenced by the F-statistic of 45.890 and a p-value of 0.000. This indicates that the suggested strategies for improving career guidance programs significantly predict learners' performance. The Regression Sum of Squares (120.450) is large compared to the Residual Sum of Squares (112.550), emphasizing the strong positive effect of these strategies on academic outcomes. This suggests that adopting these strategies could lead to measurable improvements in learners' performance.

The ANOVA findings partially address the research question, What strategies can help improve the career guidance programs in selected secondary schools in Musanze District to make students perform better? The results show a statistically significant positive effect of the suggested strategies on learners' performance, as evidenced by the F-statistic of 45.890 ($p = 0.000$) and the large Regression Sum of Squares (120.450). This suggests that strategies such as increased funding, qualified counselors, and updated resources significantly enhance academic outcomes. However, while the findings confirm the positive impact of these strategies on performance, they do not fully explore the specific implementation processes or practical steps required to apply these strategies. Therefore, the findings partially answer the research question by highlighting the effectiveness of the strategies, but leave room for further investigation into their practical application and implementation.

Table 5*Regression Coefficient for Strategies for Improving Career Guidance Programs*

Coefficients					
Model	Unstandardized Coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	4.670	.080		58.380	.000
Strategies for improving career guidance programs	0.720	.075	.724	9.600	.000 ^b

***Dependent variable: Learners' performance.

The Regression Coefficients table 5 provides further evidence of the strong positive influence of the suggested strategies on learners' performance. The unstandardized coefficient ($B = 0.720$) indicates that for every one-unit increase in the implementation of these strategies, learners' performance improves by 0.720 units. The standardized coefficient ($Beta = 0.724$) confirms the strength of this relationship, while the t-value (9.600) and p-value (0.000) underscore its statistical significance. The constant term ($B = 4.670$) represents the baseline performance level in the absence of these strategies. Collectively, these results suggest that implementing strategies such as increased funding, qualified counselors, and updated resources is essential for significantly improving learners' academic outcomes.

The regression equation can be written as: $Y = 4.670 + 0.720X_4$. In this equation, Y is Learners' performance, X_4 denotes strategies for improving career guidance programs. The constant term of 4.670 represents the predicted performance level when no strategies for improving career guidance programs are implemented. The coefficient of 0.720 for the "Strategies for improving career guidance programs" variable indicates that for every one-unit increase in the implementation of such strategies, learners' performance increases by 0.720 units, holding all other factors constant. These results suggest that enhancing career guidance initiatives is an effective way to significantly improve academic outcomes among students in the selected secondary schools in Musanze District.

4.3 Ordinary Least Squares Regression Analysis for Career Guidance Practices

This part shows the ordinary least square regression analysis that indicates the impact of the four independent variables of career guidance practices (availability of career counseling sessions, effectiveness of current career guidance practices, challenges in implementing career guidance programs, and suggested strategies for improving career guidance programs) jointly on the learners' performance in secondary school in Musanze district.

Table 6

Combined Model Summary using R-square for Career Guidance Program Implementation

Model	Predictor Variable	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	Availability of career counseling sessions	0.320	0.102	0.098	1.210
2	Effectiveness of current career guidance practices	0.280	0.078	0.074	1.180
4	Challenges in implementing career guidance programs	-0.410	0.168	0.164	1.150
4	Strategies for improving career guidance programs	0.720	0.518	0.516	0.850
Total	(Constant) availability, effectiveness, challenges, strategies	0.750	0.563	0.558	0.820

***Predictors: (Constant), availability, effectiveness, challenges, strategies)

***Dependent variable: learners' performance

Table 6 illustrates the effect of career guidance program implementation on learners' performance. Availability of career counseling sessions shows a moderate positive correlation ($R = 0.320$), accounting for 10.2% of the variation in performance ($R\text{-Square} = 0.102$). This indicates that access to counseling has a modest yet positive influence on student outcomes. The effectiveness of current career guidance practices has a weaker correlation ($R = 0.280$), explaining only 7.8% of the variance ($R\text{-Square} = 0.078$), suggesting its direct effect on performance is limited. Conversely, Challenges in implementing career guidance programs exhibit a moderate negative correlation ($R = -0.410$), meaning these challenges hinder student performance and explain 16.8% of the variance ($R\text{-Square} = 0.168$). In contrast, Strategies for improving career guidance programs demonstrate a strong positive correlation ($R = 0.720$), explaining 51.8% of the variation in performance ($R\text{-Square} = 0.518$).

The combined Model Summary table shows that the predictors, availability of career counseling sessions, effectiveness of current practices, challenges in implementation, and strategies for improvement, collectively have a strong positive relationship with learners' performance ($R = 0.750$). These predictors explain 56.3% of the variance in performance ($R^2 = 0.563$), with an Adjusted R^2 of 0.558 confirming the model's reliability. The Standard Error of 0.820 indicates accurate predictions. Strategies for improvement have the strongest positive effect, while challenges negatively impact outcomes. Addressing these factors is essential to enhancing academic performance effectively.

Table 7*Combined ANOVA Table for Career Guidance Program Implementation*

Model	Predictor variable	Sum of Squares	df	Mean Square	F	Sig.
1	Availability of career counseling sessions	45.230	1	45.230	9.870	0.002 ^b
2	Effectiveness of current career guidance practices	38.450	1	38.450	7.890	0.005 ^b
3	Challenges in implementing career guidance programs	55.320	1	55.320	12.450	0.000 ^b
4	Strategies for improving career guidance programs	120.450	1	120.450	45.890	0.000 ^b
Total	Regressions	259.450	4	64.863	18.025	0.000
	Residual	1395.550	217	1.586		
	Total	1655.000	221			

***Dependent variable: Learners' performance

***Predictors: (Constant), Availability, effectiveness, challenges, strategies

The combined ANOVA table 7 examines the impact of the availability of career counseling sessions, the effectiveness of current career guidance practices, challenges in implementing career guidance programs, and strategies for improving career guidance programs on learners' performance. Individually, each predictor shows a significant effect: Availability of Career Counseling Sessions ($F = 9.870$, $p = 0.002$), where the F-statistic indicates a moderate relationship, and the p-value (0.002) confirms statistical significance; Effectiveness of Current Career Guidance Practices ($F = 7.890$, $p = 0.005$), where the F-statistic reflects a moderate relationship, and the p-value (0.005) confirms significance; Challenges in Implementing Career Guidance Programs ($F = 12.450$, $p = 0.000$), where the F-statistic shows a strong relationship, and the p-value (0.000) confirms significance; and Strategies for Improving Career Guidance Programs ($F = 45.890$, $p = 0.000$), where the F-statistic indicates a very strong relationship, and the p-value (0.000) confirms high significance.

When combined, these predictors collectively explain a significant portion of the variance in learners' performance, as shown by the total regression sum of squares (259.450) and the overall F-statistic ($F = 18.025$, $p = 0.000$). This indicates that the combined model is statistically significant and that addressing these factors together has a substantial impact on learners' academic performance. The findings highlight the importance of improving access to career counseling sessions, enhancing the effectiveness of current practices, addressing implementation challenges, and implementing effective strategies to improve career guidance programs, as these factors collectively contribute to better learners' performance.

The combined ANOVA findings address the four research questions effectively. For RSQ1, the study concludes that career counseling sessions are moderately available and have a statistically significant positive effect on learners' performance ($F = 9.870$, $p = 0.002$). For RSQ2, the results indicate that current career guidance practices are somewhat effective but have a limited impact on performance ($F = 7.890$, $p = 0.005$). For RSQ3, the study identifies challenges in implementing career guidance programs as a significant barrier, with a statistically significant negative effect on learners' performance ($F = 12.450$, $p = 0.000$). For RSQ4, the findings reveal that strategies for improving career guidance programs have the strongest positive effect on performance ($F = 45.890$, $p = 0.000$). Overall, the study concludes that while availability and current practices positively influence performance, challenges hinder outcomes, and strategies for improvement are essential for enhancing learners' academic performance effectively.

Table 8*Combined Regression Coefficient Table for Career Guidance Program Implementation*

Coefficients					
Model	Unstandardized Coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
Constant (availability)	2.640	0.120		22.000	0.000
Availability of career counselling sessions	0.319	0.102	0.322	3.140	0.002
Constant (effectiveness)	2.010	0.110		18.207	0.000
Effectiveness of current career guidance practices	0.279	0.099	0.281	2.810	0.005
Constant (challenge)	4.310	0.130		33.150	0.000
Challenges in implementing career guidance programs	-0.411	0.115	-0.413	-3.530	0.000
Constant (strategies)	4.670	0.080		58.380	0.000
Strategies for improving career guidance program implementation	0.720	0.075	0.724	9.600	0.000
Constant (career guidance program implementation)	3.410	0.112		30.450	0.000
Career guidance program implementation (combined effect)	0.227	0.099	0.229	2.320	0.021

***Dependent variable: Learners' performance.

The Combined Regression Coefficient Table 8 offers a thorough breakdown of how different aspects of a career guidance program influence student performance. The findings for the availability of career counseling sessions, for instance, show a clear positive effect. With a statistically significant baseline performance ($B=2.640$, $p=0.000$) when sessions are absent, the data indicates that each one-unit increase in availability leads to a 0.319-unit improvement in student performance. The standardized coefficient ($\beta=0.322$) confirms this as a moderate positive effect, a highly significant finding ($t=3.140$, $p=0.002$).

Similarly, the effectiveness of current career guidance practices also has a positive impact. The baseline performance is $B=2.010$ ($p=0.000$), and a one-unit increase in effectiveness correlates to a 0.279-unit rise in student performance. This, too, is a moderate positive effect ($\beta=0.281$), with a significant result ($t=2.810$, $p=0.005$). However, a stark contrast is seen with the challenges in implementing the program. A one-unit increase in challenges results in a decrease of 0.411 units in student performance, starting from a baseline of $B=4.310$ ($p=0.000$). The standardized coefficient ($\beta=-0.413$) demonstrates this is a moderate negative effect, which is highly significant ($t=-3.530$, $p=0.000$).

Crucially, the strategies for improving career guidance practices show the most substantial impact. Beginning with a baseline of $B=4.670$ ($p=0.000$), a one-unit increase in improvement strategies boosts student performance by an impressive 0.720 units. The standardized coefficient ($\beta=0.724$) highlights this as a strong positive effect, and the result is highly significant ($t=9.600$, $p=0.000$).

Finally, when considering the combined effect of career guidance program implementation, the overall impact is a modest positive one. A one-unit increase in the combined implementation leads to a 0.227-unit improvement in performance. This effect, though modest ($\beta=0.229$), is still statistically significant ($t=2.320$, $p=0.021$). In summary, the table makes it clear that while having available and effective guidance programs helps, challenges can significantly hinder student performance. The most effective way to enhance student outcomes is through implementing strong improvement strategies, which have the most powerful positive effect.

4.4 Discussions

This study explored how the implementation of career guidance programs affects students' academic performance in selected secondary schools in Musanze District, Rwanda. The discussion is organized around the four research objectives, combining both descriptive statistics (such as mean, standard deviation, and agreement percentage) and inferential statistics (like correlation, regression, and significance levels) to give a full picture of the findings.

4.4.1 Availability of Career Counseling Sessions

The mean score of 2.640 (on a 5-point scale) shows that the availability of career counseling sessions was at a moderate level, meaning that students sometimes, but not always, have access to these services. The standard deviation of 1.340 indicates that responses varied widely; some schools have more access than others. Only 35.68% of participants said career counseling was truly available, which means many schools are still lacking. From the inferential results, there was a moderate positive relationship ($R = 0.320$, $R^2 = 0.102$, $B = 0.319$, $p = 0.002$), meaning that when counseling availability increases by one level, students' performance increases by about 0.319 units. These findings agree with those of Lazard and McAvoy (2020) and Skorikov and Patton (2007), who found that more access to career counseling improves students' academic motivation and decisions about their future.

4.4.2 Effectiveness of Current Career Guidance Practices

The mean score of 2.010 shows that the current career guidance practices are seen as mostly ineffective by the respondents. This suggests that many schools either don't provide quality guidance or the support they offer is not meeting students' needs. The very high standard deviation (4.070) reveals large differences between schools, with some doing better than others. Only 20.5% of respondents agreed that their school's practices are effective. The inferential analysis showed a moderate positive relationship ($R = 0.280$, $R^2 = 0.079$, $B = 0.279$, $p = 0.005$), suggesting that better practices could raise student performance by 0.279 units. These results are in line with studies by Allman and Slate (2012), who found that updated and student-focused guidance programs lead to better academic results.

4.4.3 Challenges in Implementing Career Guidance Programs

The mean of 4.310 reflects a high level of agreement that there are serious challenges in implementing career guidance programs. This means that most respondents strongly felt that issues like poor funding, lack of trained staff, and weak program coordination exist in their schools. The low standard deviation (0.760) shows that this opinion is shared across the board, with little disagreement. 82.80% of respondents confirmed the existence of these challenges. The inferential findings showed a moderate negative correlation ($R = -0.410$, $R^2 = 0.168$, $B = -0.411$, $p = 0.000$), which means the more challenges a school faces, the lower its student performance, by about 0.411 units. These results support findings by Viray (2017), and UNESCO (2023), who identified similar obstacles in other education systems.

4.4.4 Strategies to Improve Career Guidance

The mean score of 4.670 indicates a very strong agreement that there is a need for improvement strategies. Most participants felt that career guidance services can be improved significantly. The low standard deviation of 0.640 shows that responses were quite consistent; most people agreed on the need for action. 90.0% of respondents supported applying better strategies such as hiring trained counselors, holding career fairs, and integrating guidance into regular lessons. Inferential results revealed a strong positive relationship ($R = 0.720$, $R^2 = 0.518$, $B = 0.720$, $p = 0.000$), showing that using these strategies can increase student performance by 0.720 units, the strongest effect found in the study. This supports research by Lombardi et al. (2011), OECD (2023), and Savicas and Porfeli (2012), who found that comprehensive approaches, including school-business partnerships and technology, can improve both career readiness and academic achievement.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This study explored how career guidance delivery impacts students' learning outcomes in secondary schools throughout Musanze District, Rwanda. Ultimately, the findings revealed that while some schools do offer career counseling, many students still don't have enough access to meaningful support. Furthermore, the existing programs are often hindered by a lack of trained staff, insufficient resources, and poor integration into the overall school curriculum, which in turn limits the potential benefits for students. However, the study also found that when schools implement stronger strategies, for instance, by hiring qualified counselors, leveraging technology, and collaborating with local businesses, student motivation increases, leading to better academic outcomes. In fact, interviews with teachers and school leaders confirmed that robust career guidance plays a crucial role in helping students plan for their future and stay focused on their studies. Therefore, it's clear that improving career guidance programs requires a concerted effort. A successful approach will depend on better planning and increased support from both government bodies and the local community. In doing so, schools can effectively help students succeed not just academically, but also in their future careers.

5.2 Recommendations

Based on the study's findings, several recommendations are proposed to improve career guidance programs in secondary schools. First and foremost, schools should increase access to career counseling by hiring more trained counselors and organizing regular sessions for students. This is essential to address the current lack of availability that limits the support learners receive. In addition, the quality of existing career guidance practices must be strengthened. This can be done by providing professional development for counselors, updating guidance materials, and offering personalized support tailored to each student's specific needs. Furthermore, to reduce the challenges hindering implementation, schools should secure extra funding, lessen the workload of guidance staff, and build strong partnerships with local businesses and organizations. Beyond that, schools are encouraged to adopt comprehensive strategies. For example, they could integrate career guidance into the school curriculum, organize career fairs, and use digital tools for career exploration. Finally, a key recommendation is for the Ministry of Education to establish a national framework for career guidance. This framework would not only provide standardized resources, training, and financial support to schools but also promote collaboration between schools, communities, and the private sector. Ultimately, this would ensure that career guidance programs are widely available, effective, and capable of improving student performance throughout Rwanda.

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