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THE ROLE OF CONTEXTUAL FACTORS ON PARENTAL CAREER SUPPORT, STUDENTS SCIENCE SELF-EFFICACY, AND CAREER DECISION-MAKING IN SECONDARY SCHOOL STUDENTS

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ABSTRACT

This study explores the relationships among age, gender, school type, and teacher's career guidance with parental career support and science self-efficacy in students' career decision-making processes. Drawing on the Social Cognitive Career Theory (SCCT) framework, which underscores the importance of contextual factors in career development, the ensuing study questions were raised; what the role of age, gender, school type, and teachers' career guidance on parents' career support, students' science self-efficacy and career decision making. The study employed a survey research method to collect data from 482 respondents in public schools in Kenya. The sample size was derived from Cochran's sample size formula. Purposive sampling and proportionate stratified random sampling determined 11 schools from boys, girls, and mixed schools. Random sampling was used to select students across different age groups, genders, and school types. Data were collected and evaluated by SPSS. Data were described using measures of central tendency, standard deviations, and percentages. Analyses of variance (ANOVA) and t-tests were used to compare means across age, gender, and school type. The findings show that age differences, gender school type, and teacher guidance did not impact parents' career support, students' science self-efficacy, or their decisiveness in choosing a career. However, a notable difference in the perception of science self-efficacy between boys and girls was observed.

Key Words: Age, Gender, School type, Teacher's career guidance, Parental career support, Science self-efficacy, Career decision making.

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Introduction

In the dynamic landscape of education and career development, understanding the multifaceted influences on students' perceptions, self-efficacy, and decision-making is crucial. The transition from adolescence to adulthood is marked by critical decisions related to education and career choices (Nelson, 2021). Scholars and educators alike recognize that numerous factors contribute to the formation of students' career-related beliefs and decision-making. Age, serving as a fundamental demographic variable, encapsulates the developmental nuances that may impact students' perspectives on their future (Sethi & Scales, 2020). Similarly, gender dynamics, school environments, and the guidance provided by teachers contribute to the intricate tapestry of influences shaping career-related perceptions (Popescu & others, 2021).

Career decision-making is a lifelong process, but decisions made during adolescence matter a lot. Such decisions not only characterize adolescents' navigation of their developmental task of identity development but are also consistent predictors of their academic outcomes and future career achievements (Koçak et al., 2021; Mann et al., 2020). Of concern is that over the last two decades, the career thinking of teenagers has not changed with evidence revealing that they have just concentrated on fewer career options (Mann et al., 2020).

A widely endorsed school-level approach, advocated globally by policymakers and governments to bridge the disparities between the labor market and human capital, is to encourage a greater number of students to pursue academic courses and careers in Science, Technology, Engineering, and Mathematics (STEM) (Blustein et al., 2022). Research is clear that an increase in STEM graduates goes hand in hand with improved economies and more employment (Bacovic et al., 2022). In fact, in this era of digital economies, emphasis has been placed on innovation capacities and technological advancements meaning that students who pursue STEM courses remain advantaged by having diverse employment options, higher salaries, and career relevance (Akcan et al., 2023; Mwarari et al., 2020; Skjelbred & Nesje, 2023). However, being a STEM graduate does not necessarily translate into a better cushion from labour market stress and fluctuations (Skjelbred & Nesje, 2023).

Researchers in STEM career choices seem to agree that when students are empowered and supported to understand labour market signals, they tend to make more confident and informed career choices (Bolat &Odacı, 2017; López et al., 2023; Monda et al., 2021). In a recent systematic review, López and others (2023) grouped the factors that trended in students' choices of STEM careers as environmental, social, and personal. Parental support and science self-efficacy and its variants were mapped among the most studied environmental and personal psychological variables respectively.

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In alignment with the Social Cognitive Career Theory, adolescents are prone to making informed career decisions when parents offer encouragement, motivation, and resources to support their exploration of career options. Researchers from diverse contexts seem to broadly define parental support as the psychological and economic resources that children can get from their associations with parents (Youn et al., 2023). Notably, findings from different places like America (Reinhold et al., 2018) (Reinhold et al., 2018), Australia (Akosah-Twumasi et al., 2018);(Lloyd et al., 2018) China (Zeng et al., 2022); Indonesia (Chasanah& Salim, 2019; Suryadi et al., 2020); Kenya (Mwarari et al., 2020; Ogutu et al., 2017); Nigeria (Okwulehie et al., 2018); Romania (Maftei et al., 2023); South Korea (Youn et al., 2023) and Taiwan (Mao et al., 2017) seem to converge on the conclusion that parental support enhances students' career decisions and career-related self-efficacy. The role of parental support is paramount in this context, serving as a foundational pillar in the scaffolding of students' career aspirations.

Self-efficacy is yet another social variable that is often studied in cahoots with parental support and career decision making. Defined as students' self-beliefs about their capacity to complete career activities, self-efficacy has been a focus of research for several decades (Youn et al. 2023). This study focused on students' science self-efficacy, defined as their belief in their ability to complete science activities and to excel in science subjects. Consistent with conclusions from other studies among secondary school students (Liam et al., 2021; Matt et al., 2020; Youn et al., 2023), this study considered science self-efficacy as a critical predictor for teenagers' career choices in the STEM fields. Moreover, the students' self-efficacy in science, a domain often critical in career choices, adds another layer of complexity to this investigation.

Age, Parental Career Support, Science Self-Efficacy, and Career Decision Making

Navigation of the various life stages, adolescents' perspectives on career-related beliefs and goals may change, influencing the way they make decisions. (Akpochafo, 2021;Gati & Kulcsar, 2021; Nanji, 2017). As students transition into mid-adolescence, their understanding of parental support in career matters may transform into a more individualized perspective. (Deng et al., 2022). Adolescents may seek guidance on specific subjects, extracurricular activities, and potential career paths. Their perception is influenced by the degree of association between parental guidance and emerging individual interests (Ahmed et al., 2017).Students assess their ability to handle advanced science courses and view parental encouragement and support as crucial elements in shaping their confidence in science-related pursuits. (Aurah, 2017a;Lee et al., 2020;Nduta, 2020). Secondary school students may on the other hand view career decisions as linked to subject choices, potential college majors, and extracurricular activities(You, 2020). Parental discussions about career pathways and guidance in seeking mentorship contribute to students' evolving perceptions. (Jones, 2020;Lloyd et al., 2018;Skonieczny, 2021)

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Gender, Parental Career Support, Science Self-Efficacy, and Career Decision Making

Societal expectations and gender norms, acknowledged by SCCT, influence individuals' career choices and self-efficacy beliefs (Lloyd et al., 2018;Makarova et al., 2019;Nduta, 2020).Stereotypes shape how careers are perceived, impacting guidance provided by parents, who may be influenced by traditional gender roles. (Akosah-Twumasi et al., 2020; Makarova et al., 2019;Šimunović & Babarović, 2020).Parents' career choices serve as role models, impacting the support and expectations they offer to their children. O'Connell & McKinnon (2021) and Muenks et al., (2020) note that gender stereotypes affect students' perceptions of their capabilities in science, with girls potentially facing biases against STEM fields, impacting their confidence.The gender of teachers and interactions within peer groups further contribute to science self-efficacy. (Hajovsky et al., 2020;C. Chen et al., 2020).Same-gender science-related role models positively impact self-efficacy, while gender dynamics among peers may introduce biases affecting confidence in science-related tasks (Chen et al., 2020;Hajovsky et al., 2020; Mwang'ombe, 2021) Gender roles influence perceptions of suitable careers, shaping students' consideration of traditional or non-traditional paths. (Nduta, 2020). Additionally, parents' expectations and societal norms play a significant role in shaping career perceptions, impacting the types of careers students feel comfortable pursuing based on their gender (Michael et al., 2015;Muenks et al., 2020). Family expectations also influence decisions, with traditional roles within the family affecting career choices aligned with these expectations. (Ahearn, 2021;Dang, 2023;Njenga, 2019)

School Type, Parental Career Support, Science Self-Efficacy, and Career Decision Making

In single-gender schools, career guidance is often tailored to specific gender needs and aligns with societal expectations. (Garriott et al., 2017;Mills, 2020). Parental support may be influenced by traditional gender roles, impacting the diversity of career options considered while students who identify with the school's gender may feel a stronger sense of belonging. (Halim et al., 2018;Tamunosisi Furo, 2014) These schools aim to reduce gender stereotypes, fostering an environment where students freely express interest in science (Schmader, 2023).In coeducational schools, students encounter diverse perspectives, promoting inclusive parental career support beyond traditional gender norms (Fedorowicz, 2022;Kuchynka et al., 2022)Mentorship across genders provides diverse career perspectives, while parents offer personalized support, honoring individual interests. Exposure to diverse role models in science enhances science self-efficacy (Syed et al., 2019). (Soldner et al., 2012).Research indicates that students make more informed career decisions based on personal interests, not conforming to gender expectations. Networking opportunities further contribute to informed career choices (Gati & Kulcsar, 2021;Master, 2021)

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Teacher Career Guidance, Parental Career Support, Science Self-Efficacy, and Career Decision Making

Teachers' career guidance complements parental support by providing additional insights and information. (Amunga et al., 2020;Gati & Kulcsar, 2021).Teachers, as professionals, have access to up-to-date career information, contributing to more comprehensive guidance. They align career advice with educational goals, emphasizing the connection between academic achievements and future careers. (Çiftçi et al., 2022). Teachers act as a bridge between school and home, facilitating informed discussions about career choices by sharing students' strengths, interests, and areas for development. In fostering science self-efficacy, teachers provide STEM-specific encouragement, positive feedback, and hands-on learning experiences (Thibaut et al., 2018;Smith et al., 2020)Regular interactions with teachers help identify and reinforce students' strengths(Eastman et al., 2017). Teacher guidance aids informed decision-making by offering insights into required skills and suitable educational paths. Okeke et al., (2017) observe that exposure to diverse career paths, including those in science, broadens students' perspectives, impacting students' confidence in making career decisions.

This research endeavored to investigate the intricate relationships among age, gender, school type, and teacher career guidance in shaping parental career support, students' science self-efficacy, and their decision-making processes regarding future career paths.

Sample size

Table 1: Actual Sample

School Type	Gender				Total	
	Male		Female			
	f	%	*f*	%	*f*	%
Boys only	78	15.66	-	-	78	16.18
Girls only	-	-	92	18.47	92	19.09
Mixed gender	158	32.78	154	31.95	312	64.73
Total	236	48.96	246	51.04	482	100.00

Note. *N* = 482, all were public schools

Out of the 482 respondents, the majority (64.73%) were from mixed-gender secondary schools while those from boys-only and girls-only schools constituted 19.08 % and 16.18 % of the sample respectively. Notably, slightly over half of the sample (51.05 %) were females.

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However, the sample from mixed-gender secondary schools had more boys (32.78%) than girls (31.95%).

Research Methodology

The study chose Murang'a County purposefully as the research location. Among the county's eight Sub-counties, 303 public schools were identified. These schools were categorized based on school type with 33 girls' secondary schools, 26 boys' schools, and 249 mixed schools. Form three students were specifically chosen for the study. The sample size in each school type was determined using a proportional stratified formula. Random sampling was then used to select participants from each school.

Research Instruments

The questionnaire utilized combined three instruments; the Career-related parent support scale (CRPSS) (Turner et al., 2003)to determine parents' support of careers, the Science Self-efficacy Scale (e.g., Pajares et al., 2000; Britner & Pajares, 2001, 2006; Chen & Usher, 2013,) and The career decision scale (CDS)(Osipow, 1994).

Study Results

The respondent's characteristics, including age, gender, school type, and teachers' career guidance, were analyzed using descriptive statistics and presented in this section. The students' age distribution is shown in Table 2

Table 2: Students' Age and Gender

Age	Gender				Total	
	Male		Female			
	f	%	*f*	%	*f*	%
12-15	1	0.21	6	1.24	7	1.45
16-19	228	47.30	237	49.17	465	96.47
20-23	7	1.45	3	0.62	10	2.07
Total	236	48.96	246	51.04	482	100.00

Note. $N = 482$.

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As given in Table 2 the participants' age ranged from 15 to 20 years with the majority (96.47 %) aged between 16 and 19 years. The mode age was 17 years with a mean of 17.17 (*SD* = 1.00). Notably, a paltry 1.45 % of the sample was aged 15 while only 2.07 % was aged above 19.

Demographic Characteristics of the Participants

The participants' characteristics were further analyzed in terms of school type, age, and gender as shown in Table 3.

Table 3: Respondents' School Type, Age, and Gender

Type of School					
Gender	Age(Years)	Boys only	Girls only	Mixed Gender	Total
Male	12-15	-	-	1	1(0.44)
	16-19	75	-	153	228(96.61)
	20-23	3	-	4	7(2.07)
	Total	78(33.05)	-	158(66.95)	236(100)
Female	12-15	-	-	6	6(2.44)
	16-19	-	90	147	237(29.67)
	20-23	-	2	1	3(1.22)
	Total	-	92(37.40)	154(62.60)	246(100)
	Overall Total	78(16.18)	92(19.09)	312(64.73)	482(100)

Note. *N* = 482. () represent percentage of the respective total.

Results in Table 3 showed that most of the male respondents (66.95%) were from mixed schools while (33.05%) were from boy's schools. The same case applied to the female, where most of the female respondents (62.60%) came from mixed schools and 37.40% from girls' schools. Overall, the majority (65%) of the respondents were from mixed Schools.

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The study also sought to establish whether teachers' career guidance influenced decision-making for the students. The study performed cross-tabulation of respondent gender, teacher career guidance, and age. The results are shown in Table 4.

Table 4: Teacher Guidance on Career Decision by Gender, And Age

Gender	Age (years)	TG Influenced CD?		Total
		Yes	No	
Male	12-15	0	1	1 (0.44)
	16-19	101	127	228 (96.61)
	20-23	5	2	7 (1.45)
	Total	106 (44.92)	130 (55.08)	236 (100)
Female	12-15	6	0	6 (2.44)
	16-19	175	62	237 (96.34)
	20-23	1	2	3 (1.22)
	Total	182(73.98)	64 (26.02)	246 (100)
	Overall Total	288(59.75)	194(40.25)	482(100)

Note. *N* = 482. TG = Teacher career guidance, CD = Career Decision, () = percentage of the respective total.

Results in Table 4 showed that most of the students (59.75 %) reported that career guidance from their teachers influenced their career decisions. In terms of gender, whereas close to three-quarters of the girls considered teacher guidance as having influenced their career decisions, over half of the boys (55.08 %) reported that it did not. A cross-tabulation of teachers' career guidance and type of school was carried out, and the results were presented in Table 5

Table 5: Teacher Guidance on Career Decision by Gender, And Age

Type of School	TG influenced CD?		Total
	Yes	No	
Boys only school	8 (1.66)	70 (14.52)	78 (16.18)
Girls only school	62 (12.86)	30 (6.22)	92 (19.09)
Mixed-gender school	218 (45.23)	94 (19.50)	312 (64.73)
Total	288 (59.75)	194 (40.25)	482 (100)

Note. *N* = 482. () = percentage of the total.

The results presented in Table 4.6 showed that the teachers' career guidance influenced the majority (59.75%) of respondents' career decisions. This was more pronounced in mixed-gender (45.23 %) and girls-only secondary schools (12.86 %). Notably, teachers' guidance seemed to

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have had a lesser influence on career decisions in boys-only secondary schools. The implications of this finding may be that the boys' and girls' school students had greater certainty about their choice of career and, hence did not depend on teachers' recommendations. The high percentage of students who did not rely on teacher career guidance could also be explained by inadequate career guidance in secondary schools in Kenya, as Suryadi et al., (2020) revealed.

Students' Career Decision Making

The item scores of students' career decision-making were analyzed in terms of the range, mean, standard deviation, skewness, and kurtosis as presented in Table 6

Table 6: Descriptive Statistics for Participants' Career Decision-Making

Subscale	Min	Max	*M*	*SD*	*SK*	*Kur*
CCD	2	8	6.09	1.79	-0.61	-0.72
ICCD	16	55	35.78	8.91	-0.05	-0.58

Note. *N* = 482. CCD =Certainty on Career Decision; ICCD = Indecision; N = 482; Min = Minimum; Max = Maximum; SD = Standard Deviation; Kur = Kurtosis; SK = Skewness.

The participants' scores for certainty on career decision-making had a mean of 6.09 (*SD* =1.79). It had a negative skew of -.610 and a negative kurtosis of -.724.The participants' scores on the indecision subscale had a mean score of 35.78 (*SD* = 8.91). It also had a skewness of -.048 and a negative kurtosis of -.579.

The results on students' career choice certainly can be explained in that most students in form three have decided on their preferred ideal career choices. Their choices are determined by the awareness of their academic abilities, interests, weaknesses, and strengths. However, adolescence is a stage that is filled with idealism and emotional insecurity and may make unrealistic career choices.

The results indicate that students were certain of their preferred career choices; however, some demonstrated indecision on choices. According to Qudsyi et al. (2020), factors including gender differences, peer pressure, parenting styles, and culture influence students' inability to decide on specific career choices. Aurah (2017) observed that the required pass grade for admission into science courses, and the job market requirements are also essential factors that the student must consider before making a final career choice. Wachira (2018)observed that at form three level, students in Nyandarua County had challenges in career choice selection.

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The subscales were further grouped based on the gender of the respondents. The mean score and standard deviation results are presented in Table 7

Table 7: Scores on Students' Career Decision Making and Gender

	Male		Female	
Subscale	*M*	*SD*	*M*	*SD*
CCD	6.18	1.66	5.99	1.89
ICCD	35.80	8.99	35.76	8.84

Note. N= 482. CCD = Certainty on Career Decision; ICCD=Indecision.

As presented in Table 7male students showed greater certainty in their career choices (M = 6.18, SD =1.66); however, they still exhibited undecidedness in making that career choice (M =35.80, SD = 8.99). The female students had a slightly lower certainty of a career choice than the males (M = 5.99, SD =1.89) but had less undecidedness (M = 35.76, SD = 8.84) in their career choice than the boys. The minimal difference in the means of the scores for either gender indicates that boys and girls have almost similar challenges in deciding on a career choice.

The roles assigned to gender in our society, to some extent, explain the slight differences in male and female students' indecision. Further, parental influence, social and cultural expectations, family roles, and peer pressure are critical factors attributed to differences in the way men and women feel and behave. In comparison to the girls, boys exemplify higher career expectations influencing their decision-making self-efficacy, adversely impacting their career decisions. On the other hand, girls' career choices are often specified and reduce the rate of career indecision.

Lloyd et al., (2018) inform that girls' lower exposure, contributed to lower certainty in career choices than their male counterparts. Also, the study enlightens parents tobe accustomed to providing boys with activities and advice related to their future jobs, taking them to their workplaces, and introducing them to their workmates. However, globalization, the internet, and the increase in social media have contributed to lessening the gender role disparity in Kenya, informing students of equal gender opportunities. Conversely, Aurah, (2017) confirmed that female students had higher efficacious beliefs and academic performance in science than male students.

The researcher determined the students' career decisions through a subscale's mean scores and standard deviation. The results are presented in Table 8.

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Table 8: Students' Career Decision Making and School Type

	School Type					
	Boys only		Girls only		Mixed gender	
Subscale	*M*	*SD*	*M*	*SD*	*M*	*SD*
CCD	6.10	1.80	5.73	2.18	6.19	1.64
ICCD	35.10	8.36	35.87	9.49	35.93	8.88

Note. N = 482. CCD = Certainty on Career Decision; ICCD=Indecision.

As given in Table 8, students in the mixed-gender school had the highest level of certainty in their career choice (*M* = 6.17, *SD* =1.64), followed by the boys' only school (*M* = 6.10, *SD* =1.80), while the girls' only schools had the least certainty (*M* = 5.73, *SD* = 2.18) in their career. In terms of career indecision, the results show the students in the mixed-gender schools were the most undecided (*M* = 35.93, *SD* = 8.88), followed by those in girls' only schools (*M* = 35.87, *SD* = 9.49), with those in boys' only school showing the least indecision (*M* = 35.10, *SD* = 8.36).

The finding may imply that the students in mixed schools were exposed to various factors that promoted indecision in their career choices compared to those with a single gender. Ogutu et al. (2017) study of students in mixed schools enlightened that gender stereotyping by parents, teachers, and peers significantly influenced student career choices. Societal modeling influences male students' perception of females' inability to perform in male-dominated fields. Further, parent verbal communication on gender roles increases indecision among the students on appropriate career choices. Gathumbi et al. (2017) observed that inadequate financial and material support impacted girl child performance and career choice in some mixed schools. Teachers discouraging remarks on the girls' performances in comparison to the boys contributed to the girls' career indecision, particularly in mixed schools where girls and boys learn together in elective subjects such as physics. Subsequently, analysis of students' performance is computed separately, based on gender, and performance significantly shows girls performing poorly. According to Ogutu et al. (2017), there is lowered self-efficacy among female students preventing them from deciding on science-oriented careers. The gender stereotypes similarly discourage male students from choosing careers that are perceived to be feminine such as teaching, nursing, and secretarial.

A cross-tabulation analysis of students' career decision-making and teachers' career guidance was performed. The results are presented in Table 9

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Table 9: Career Decision Making and Teachers Career Guidance

	TG influenced SCD?			
	Yes		No	
Subscale	*M*	*SD*	*M*	*SD*
CCD	6.14	1.73	6.02	1.87
ICD	35.44	8.66	36.29	9.26

Note.N = 482. CCD = Certainty on Career Decision; ICCD = Indecision; TG = Teacher career guidance; SCD = Student Career Decision.

As per the results in Table 9, students who received career guidance from the teachers had higher certainty (*M*= 6.14, *SD* = 1.73) in their career choices than those who did not (*M* = 6.02, *SD* =1.87). The indecision scores show that students provided with career guidance showed less indecision (*M* = 35.44, *SD* = 8.66), while those with no career guidance showed higher indecision (*M* = 36.29, *SD* = 9.26). The results also show that teacher guidance on careers caused decreased indecision and increased students' certainty in choosing a career. The study findings concur with (Sagwa et al., 2018)observation of the positive effects of career guidance on university students in universities in Kenya.

Age, Parental Career Support, Science Self-Efficacy, and Career Decision Making

The ANOVA test was conducted to verify whether there existed a significant difference in respondents' perception of study variables due to their age. The findings are shown in Table 10

Table 10: Age Differences in the Study Variables

Variable	*F*	*p*
Parental Career Support	0.81	0.54
Science Self-Efficacy	1.38	0.23
Career Decision Making	0.42	0.84

Note. *N* = 482.

From the results in Table 10, none of the three study variables had significant age differences. The results indicate that the age differences did not cause changes in parents' assistance, students' self-confidence, and their decisiveness in choosing a career.

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Gender Differences in the Study Variables

An independent sample t-test was performed to test if there is any significant difference in the respondents' perception of support by parents on students' efficacy in science and in their ability to decide on a career, due to their gender. Results are shown in Table 11.

Table 11: Gender Differences in the Study Variables

Study Variables	*t*	*p*
Parental Career Support	-0.15	0.15
Science Self-Efficacy	-2.10	0.04*
Career Decision Making	0.30	0.76

Note. $N = 482$; * $p < .05$.

The findings show a p-value greater than the significance level ($\alpha = 0.05$) for parental career support and career decision-making. However, the p-value for science self-efficacy is less than the significance level. Therefore, the result meant no statistically significant difference between the respondents' perception of parental career support and career decision-making due to gender. These findings mean a shared perception between male and female students on parental support in choosing their careers and career decision-making. However, there is a significant difference between respondent science self-efficacy and gender. The finding could mean a significant difference in the perception of science self-efficacy between boys and girls.

Differences in the study Variables by School Type

An ANOVA was performed to check whether there was any significant difference in respondents' perception of the study variables due to the type of school. The results are presented in Table 12.

Table 12: Differences in the study Variables by School Type

Variable	*F*	*p*
Parental Career Support	0.40	.67
Science Self-Efficacy	16.12	.00**
Career Decision Making	0.44	.65

Note. $N = 482$. ** $p < .01$.

The results show that out of the three variables, a significant difference in the perception of science self-efficacy existed based on school type. This informed the need to check where the differences existed as presented in Table 13

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Table 13: Differences in Science Self-efficacy by School Type

(I) School Type	(J) School Type	Mean Difference (I-J)	SE	*p*
Boys only	Girls only	0.05	.10	.88
	Mixed gender	-0.32	.08	.00
Girls only	Boys only	-0.05	.10	.88
	Mixed gender	-0.37	.08	.00
Mixed gender	Boys only	0.32	.08	.00
	Girls only	0.37	.08	.00

Note. $N = 482$.

The results indicated that the mean for science self-efficacy in mixed-gender schools was significantly different from that reported in boys only and girls only schools. The difference in the means for science self-efficacy in boys only and girls only schools was significant.

Teacher Career Guidance Associations with Parental Career Support, Career Decision Making, and Science Self-Efficacy

The study also sought to establish whether teachers' guidance was a factor in the career decision making of the students. An independent sample t-test was performed to test if there is any significant difference in the respondents' perception of parental career guidance, science self-efficacy, and career decision making due to their opinion on teacher guidance on career decision making. Results are shown in 14.

Table 14: Differences in the Study Variables by Teacher Guidance

Variable	*t*	*p*
Parental Career Support	2.52	.01*
Science Self-Efficacy	3.17	.00**
Career Decision Making	-0.94	.35

Note. $N = 482$, $*p < .05$. $** p < .01$.

Results in Table 14 showed a statistically significant difference in parental career support and science self-efficacy based on teacher guidance on career decision making. This could be interpreted to mean that teacher guidance on career decision making changes the perception of students on parental career support and science self-efficacy. However, there was no statistically

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significant difference in career decision making due to teacher guidance on career decision making.

Conclusion

The findings suggest that variations in age did not lead to changes in students' perception of parental support, students' science self-efficacy, or their determination to select a career.

The study revealed that while students were generally certain about their preferred career choices, some showed indecision. Career guidance from teachers significantly influenced most students (59.75%), particularly in mixed-gender (45.23%) and girls-only schools (12.86%), with less impact in boys-only schools.

Those receiving teacher guidance exhibited higher certainty in career choices compared to those without guidance. The minimal difference in gender scores indicated similar challenges for boys and girls in deciding on a career. There was no statistically significant difference between respondents' perceptions of parental career support and career decision-making based on gender.

Regarding career indecision, students in mixed-gender schools showed the most indecision followed by girls-only schools and boys-only schools with the least indecision Additionally, a significant difference in the perception of science self-efficacy was observed based on school type, with boys-only and girls-only schools showing significant distinctions.

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