Journal of Educational Research in Developing Areas (JEREDA)
Vol. 5. Issue 2, Pp. 171 – 180, 2024
http://www.jeredajournal.com
E-mail: info@jeredajournal.com

Research Article **DOI**:https://doi.org/10.47434/JEREDA.5.2.2024.171 **eISSN**:2735-9107

DIFFERENCE IN GENDER LOCUS OF CONTROL AND ACADEMIC PERFORMANCE OF SENIOR SECONDARY STUDENTS IN MINNA EDUCATIONAL ZONE, NIGERIA

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Received: 14th February, 2024; **Revised**: 20th April, 2024; **Accepted:** 4th June, 2024

ABSTRACT

Introduction: Locus of control influences students' academic performance, which makes them believe that they have little control over their academic outcomes, low expectations for success, and display low motivation to succeed. The differences that exist between locus of control and gender (male and female) constitute a direction that requires examination through research work.
Purpose: This study investigated gender difference in locus of control and academic performance of senior secondary students in Minna Educational Zone, Niger State.
Methodology: The study employed survey research design on 4,160 students' population with a sample of three hundred and fifty-four (354) students. The Locus of Control Scale (LCS) and students' promotion examination scores were used as instruments for data collection. The data collected were analyzed using mean, standard deviation, and *t*-test independent sample.
Results: The result of the study revealed that there were significant differences in academic performances of male and female students based on their internal and external locus of control.
Conclusion: The study concluded that the academic performance of male and female senior secondary students in Minna Educational Zone differed based on their locus of control.
Recommendations: School psychologists and counsellors should encourage teachers, parents, and other stakeholders in education to focus on modifying students' locus of control through workshops, seminars, and setting of realistic goals to build their locus of control in order to improve their academic performance.

Keywords: Locus of Control, Academic Performance, Senior Secondary Students, Minna Educational Zone

Cite paper as:
Baji, M. I., & Barkuta, A. A. (2024). Difference in gender locus of control and academic performance of senior secondary students in Minna educational zone, Nigeria. *Journal of Educational Research in Developing Areas, 5* (2), 171 - 180. https://doi.org/10.47434/JEREDA.5.2.2024.171.

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PUBLIC INTEREST STATEMENT

The findings of this study will help students to be more motivated to work hard, set realistic academic goals, and take responsibility for their learning. Teachers will be able to design instructional strategies that can promote a sense of internal and external locus of control of the students through engagement. It will further help psychologists and counsellors to develop strategies in order to guidance and build students' mind set and locus of control for better academic performance. The finding will assist parents, education managers, and non-governmental organizations to build school infrastructure, learning resources, mentorship, and scholarships to help students develop a sense of control over their academic outcomes.

INTRODUCTION

Research study on the determinants of academic performance across all educational levels has drawn the attention of educators, psychologists, researchers, and school administrators (Suleiman, 2023). This concern has motivated researchers to conduct a series of studies in various disciplines and locations; aiming at uncovering the factors that can either facilitate or hinder the pace of students' academic performance. These factors encompass a wide range; including student attitudes, availability of school resources, effective school leadership, teachers' skills and abilities, classroom environment, parental involvement, students' social circles, psychological factors such as locus of control and health-related factors (Radhika, 2018).

Psychologists have emphasized the internal and external factors that can influence academic performance to include academic and non-academic variables (Margolin, 2021). The non-academic factors consist of constructs such as locus of control and their relationship with academic performance. Locus of control in psychology is considered as an important aspect of the personality. It refers to an individual perception of the underlying causes of events in his or her life. In other words, locus of control is the location of controls (the location of what controls the activities of a person). The concept of locus of control was introduced by Rotter in 1966 to explain how students assign causes to their successes or failures in the school. Thus, Rotter defined locus of control as a personality trait that is concerned with whether or not people attribute responsibility for their failure or success to internal factors or external factors (Cakir & Mustafa, 2017). Fakaye (2021) defined locus of control as a cognitive style of personality trait characterized by expectancy about the relationship between behaviour and the subsequent occurrence of reinforcement. Reinforcement, in this context, is the consequences of one's behaviour which can occur in the form of reward or punishment. The important thing about attribution in this context is that, it reflects personal beliefs about the sources or causes of life events and outcomes. Locus of control, therefore, is the excuse students make concerning their academic performance.

Schunk (2020) posited that the kind of belief a student has about the cause of successes and failures in undertaking school tasks can increase or decrease his/her motivation for studying hard and undertaking rigorous academic tasks. In this context, locus of control and causal attribution are key determinants of academic performance at all levels of education (Ogunyemi & Olaoye, 2019). This means that success or failure in academic performance could be linked to factors within or outside the individual. Hence, understanding students in terms of their personality contributes significantly to the level of attainment in educational strivings.

The locus of control can be categorized based on two dimensions which include internal and external locus of control (Dincer, 2018). According to Schultz (2020), internal locus of control refers to the psychological orientation involving acceptance of personal actions and the beliefs that many circumstances in life and how the outcomes develop are within the realm of one's control. Thus, students who attribute outcomes of performance to their determination are

described as those with an internal locus of control (Adepoju, 2021). This implies that students who have internal locus of control require conducive learning environment to experience success (Chinedu & Nwizuzu, 2021). Hence, students with an internal locus of control believe that they control their destiny. They also believe that their own experiences are controlled by their skills or efforts (Garcia, et al., 2023). Students with an internal locus of control believe that their efforts and abilities directly influence their academic performance. They tend to take responsibility for their learning, set goals, and persist in the face of challenges; leading to better academic performance (Nowack, 2021).

According to Li, et al. (2021), internal locus of control is associated with setting goals and planning for academic success. Individuals with this belief take responsibility for their academic progress and are proactive in setting specific goals and strategies to achieve them. These goals and strategies can enhance academic performance by providing a clear focus and direction. However, internal locus of control is linked to greater resilience and persistence in the face of challenges and setbacks. Individuals with this belief system are more likely to view obstacles as temporary and within their control to overcome. They are less likely to give up easily and more likely to persist in their academic pursuits, which can positively impact their performance in school (Spector, et al., 2022).

External locus of control, on the other hand, refers to a tendency in which an individual attributes one's life circumstances to outside force (such as another person's agenda luck, or fate) (Margolin, 2021). A student's ability to succeed academically is largely built upon what they believe about him or herself. Issues of external locus of control arise especially when students have little or no confidence regarding their potentials (Johnson, & Brown, 2023). When students have an external control point, they usually consider their life experiences to be controlled by external factors and are more likely to experience anxiety, depression, or other negative emotions such as anger, or fear of failure. Students, who attribute the successes or failures to having a bad day, or unfair grading procedures on their teacher's assessment, can be said to have external locus of control. Students often say, "It does not matter how hard I study, ''the teacher does not just like me'', and so ''I know I would not get good". Students generally do not learn from previous experiences since they attribute both their successes and failures to luck or chance, they tend to lack persistence and have low high levels of expectation (Spector, et al., 2022).

Hussein (2018) stated that students with an external locus of control often attribute their successes or failures to external factors beyond their control, such as teachers, luck, or unfair circumstances. This attribution style can undermine their sense of personal responsibility and accountability for their academic performance. Students with an external locus of control do not take proactive steps to improve their skills or seek assistance when needed, as they believe external factors have a stronger influence on their outcomes.

In another development, Schultz and Schultz (2021) pointed out that gender roles and societal expectations play a significant role in shaping students' beliefs and perceptions of control in school settings. Traditionally, gender norms may emphasize self-reliance and personal control for boys, while girls may be socialized to consider interpersonal relationships and collaborative learning in schools; which may result to an external locus of control. These societal influences can shape the development of locus of control and academic performance of both males and females (Adepoju, 2021). According to Garcia and Martinez (2023), research findings indicated that males tend to exhibit higher confidence levels in certain subjects or tasks, which can positively affect their performance.

On the other hand, females may experience lower self-efficacy due to internalized stereotypes or limited role models, potentially affecting their academic achievement. Gender differences can influence academic and

career choices, which subsequently have an impact on academic performance. Societal expectations, perceived gender roles, and stereotypes could discourage students from participating in specific fields of study which may affect their motivation and efforts in academic pursuits (Gonzalez & Smith, 2023). The classroom environment can influence academic performance differently for boys and girls. Factors such as teacher-student interactions, classroom discipline, and the presence of gender biases can affect learning outcomes. For example, girls may face biases in the classroom, resulting in reduced participation, fewer opportunities for leadership roles, or less recognition for their achievements, which can affect their academic performance. Also, gender differences in academic performance can be influenced by the subjects that students feel more interested in or comfortable with. For instance, boys might show higher performance in mathematics and science subjects, while girls might excel in language and social sciences. These preferences can affect course choices and overall academic outcomes (Stoet & Geary, 2018).

Similarly, gender roles and expectations may contribute to differences in subject choices, motivation, and self-perception, influencing academic performance. Females have been found to have an advantage in verbal skills, including reading and writing (Fonagy & Smith, 2018). They tend to exhibit stronger language abilities and perform better on tasks related to verbal comprehension, reading comprehension, and written expression in school. Gender differences can also influence students' confidence and self-efficacy beliefs in academic settings. Corbin (2019) observed that males often display higher levels of confidence in their abilities when faced with challenges. In contrast, females may experience lower self-confidence, particularly in difficult examination questions, which may affect their academic performance.

Usually, girls start to develop skills such as the ability to sit still or stay focused earlier in school life than boys (Johnson & Brown, 2023). Corbin (2019) reports that male and female students learn differently and that males are more individualistic (internal locus of control). They may prefer to work and learn on their own whereas females are more collaborative (external locus of control).

On the contrary, Mahmud and Nur (2018) found that gender differences in academic performance can be influenced by subject preferences and interests. Boys and girls may gravitate towards different subjects due to a variety of factors, including societal expectations, cultural influences, and personal interests. For example, boys may show a higher interest in STEM fields (science, technology, engineering, and mathematics), while girls may be more inclined towards humanities or social sciences. Thomas (2015) found the predicted gender differences in ability attributions as well as evidence that females more often cite "luck" for success, whereas males more often cite "task" for failure. This reasoning which found that males are more internal than females in attributions for success but more external for failure attributions in school life provide research gap among senior secondary students in Minna educational zone, Niger state that has been filled in this study.

STATEMENT OF THE PROBLEM

Many students attribute their successes or failures in schools to a bad day or unfair grading process on the part of teachers or even God's will. Students often make these statements: 'The teacher fails me," "It does not matter what you read, the teacher does not like me," "By God's willing I will pass," '"I do not have a problem with Mathematics'', '"I will pass my examination," Statements of these nature are indicators of locus of control which influence students' academic performance in several ways. It should be noted that some students generally believe that their success or failures are a result of their efforts, hard work and determination, and might blame their poor grades on failure to study hard.

Students who take responsibility for events around their lives stand a

chance of excelling in academic performance than those who attribute blame to either the environment or other factors within the context of the environment. On the other hand, those with failure outcomes are always on the run for their classmate to see them but end up attributing their failure to "the teacher hates me", 'the questions are too difficult", 'my parents do not get me the required learning materials", and a lot of others. It is against this background, this study was carried out to assess if differences exist in academic performance based on locus of control between genders in the educational zone.

PURPOSE OF THE STUDY

1. To determine if there is significant difference in the academic performance of male and female senior secondary students in Minna Educational Zone based on internal locus of control.
2. To find out the difference in the academic performance of male and female senior secondary students in Minna Educational Zone based on external locus of control.

HYPOTHESES

1. There is no significant difference in the academic performance of male and female senior secondary students in Minna Educational Zone based on internal locus of control.
2. There is no significant difference in the academic performance of male and female senior secondary students in Minna Educational Zone based on external locus of control.

METHODOLOGY

Design

The study adopted a survey research design. This design was considered appropriate because the study is survey based research. It is survey based because the study areas covered a large portion which would be difficult for the researchers to reach out to each school and every member of the population. It was because of this reason a sample was taken out of the population after which the findings were generalized on the entire population. According to Baji et al. (2015), survey research design is an effective design which enables a large population to be captured with ease while generalizations of findings are made on the entire population.

Population and Sample

The population of the study is 4,160 senior secondary students in Minna Educational Zone of Niger State (Niger State Ministry of Education, 2022). The population characteristic is male and female which comprised of 2,560 for males (representing 62%) and 1,600 for females (representing 38%). Since the schools and students' population varied, simple random sampling and stratified proportionate sampling techniques were used for the selection of schools and students. A simple random sampling through hat and draw method was employed to select the individual school and students while stratified proportionate sampling techniques was used to select male and female students based on their population strength. A sample size of three hundred and fifty-four (354) students comprising 219 males and 135 females was used. The sample size was determined using Krejcie and Morgan's (1970) population table for determining a sample size.

Instrument for Data Collection

Locus of Control Scale (LCS) was used as the instrument for data collection. The LCS was adapted from the studies of Rotter (1966) and Wang (2020). It has sections A and B. Section 'A' covered the demographic data of the students which includes school name and gender (male & female). Section 'B' of the LCS has 35 items which measured the internal and external locus of control of the students structured on a four (4) points modified Liker's scale of Strongly Agree (SA), Agree (A), Disagree (DA), and Strongly Disagree (SDA) which were scored 4, 3, 2, and 1 respectively. Student's academic performance was assessed using promotion examinations for the 2022/2023 academic session across three subjects namely;

Mathematics, English, and Civic Education. The mean of the scores from the three (3) subjects was used for the analysis.

Two (2) experts in Educational Psychology and Measurement and Evaluation in Ahmadu Bello University, Zaria validated the instrument through face validity. The items on the LCS were vetted and modified to ensure that the contents suit the objectives of the study. The reliability of the LCS was determined through the split-half method. The scores of the items were split into odd and even numbers which gave rise to two (2) set of scores. Pearson Product Moment Correlation was used to analyze the two scores obtained from the split-half to determine the internal consistency of the instrument and it yielded 0.80 coefficients.

Procedures for Data Collection

The data collection in this study was carried out by the researchers with the aid of two (2) research assistants. A letter for seeking permission was given to the principals of the schools selected and students were provided with consent form to fill to indicate their interest to participate in the study. The administration of the instrument was done through the group method. The students were assembled in a class with the permission of the school authority, and the Locus of Control Scale was administered to them. The students filled and returned the instrument to the researchers on the spot. On the other hand, students' promotion examination scores were obtained directly from the examination officer of each selected school.

Methods of Data Analysis

The data obtained in the study were analyzed using mean, standard deviation, and t-test independent sample. The mean and standard deviation were used in the descriptive aspects of the analysis while the t-test independent sample was used to test the null hypotheses which measured differences in academic performance of male and female senior secondary students based on their internal and external locus of control. The level of significance for decision was 0.05, and SPSS version 21 was used in the data analysis.

RESULTS

Hypothesis 1: There is no significant difference in the academic performance of male and female senior secondary students in Minna Educational Zone based on internal locus of control

Table 1: *t*-test Analysis of Difference in the Academic Performance of Male and Female Senior Secondary Students in Minna Educational Zone based on Internal Locus of Control

Gender	*N*	Mean	Std	*t*	*df*	*P*-value
Male	219	50.46	8.21	0.698	353	0.027
Female	135	49.82	8.18			

Significant at 0.05 levels

Table 1 presented the results of the t-test on the difference in academic performance of male and female students based on internal locus of control indicating (t= 0.698, df 353, p=0.027), with mean scores of 50.46 for males and 49.82 for females. Since the p-value is less than the significance levels of 0.05, the null hypothesis is rejected. This implies that there is significant difference in the academic performance of male and female senior secondary students in Minna Educational Zone based on internal locus of control.

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Hypothesis 2: There is no significant difference in the academic performance of male and female senior secondary students in Minna Educational Zone based on external locus of control.

Table 2: *t*-test Analysis of Difference in the Academic Performance of Male and Female Senior Secondary Students in Minna Educational Zone based on External Locus of Control

Gender	*N*	Mean	Std	*t*	*df*	*P*-value
Male	219	57.39	4.94	0.96	353	0.012
Female	135	56.89	4.11			

Significant at 0.05 levels

Table 2 showed the t-test analysis of the difference in academic performance of male and female students showing t=0.96, df 353, p=0.012, and a mean score of 57.39 for males and 56.89 for females. Since the p-value is less than the significance levels of 0.05, the null hypothesis is hereby rejected. This reveals that there is significant difference in the academic performance of male and female senior secondary students in Minna Educational Zone based on external locus of control.

DISCUSSIONS

The finding of the study revealed that there is significant difference in the academic performance of male and female students based on internal locus of control. This means that gender is a factor in determining the student's academic performance based on internal locus of control. This finding is in line with study of Ramesh (2020) who examined the effect of gender and location on locus of control among college students and found significant gender differences, with females expressing a higher internal locus of control. Gonzalez and Smith (2023) also found a significant difference in locus of control and academic performance. The study of Corbin (2019) further revealed gender difference in academic performance and locus of control among tertiary level students in Caribbean. Similarly, the study of Fonagy and Smith (2018) indicated that gender roles and expectations may contribute to differences in subject choices, motivation, and self-perception, influencing academic performance. Thus, females have been found to have an advantage in verbal skills, including reading and writing. On the contrary, a study by Oyewole and Oyewole (2018) found no significant difference in the academic performance of male and female undergraduate students in Nigeria based on internal locus of control. This signifies that locus of control does not affect academic performance of students differently based on their gender.

The finding of the study indicated that there is significant difference in the academic performance of male and female students based on external locus of control. This finding agrees with the study of Coleman and DeLeire (2021) and Corbin (2019) which observed that males often display higher levels of confidence in their abilities when faced with challenges while females may experience lower self-confidence, particularly in difficult examination questions. Schultz and Schultz (2021) pointed out that gender roles and societal expectations play a significant role in shaping students' beliefs and perceptions of control in school settings. In their opinions, gender norms may emphasize self-reliance and personal control for boys, while girls may be socialized to consider interpersonal relationships and collaborative learning in schools; which may result to an external locus of control.

The study of Johnson and Brown (2023) further discovered that female students have little or no confidence regarding their potentials. However, Oyinloye and Oyinloye (2020) who found that there is no significant difference in the academic performance of male and female undergraduate students in Nigeria based on external locus of control. The study finding of Adepoju (2021) indicated that male students attribute the outcomes of their performance to determination and hard work other than favoritism and influence of peers if compared with their female counterpart. Abubakar et al (2018) found that locus of control does not predict academic performance of senior secondary school students in Sokoto Metropolis.

CONCLUSION

The study examined gender difference in locus of control and academic performance of senior secondary students in Minna Educational Zone of Niger State. Locus of control influences students' performance in various ways. It influences students' beliefs, abilities, confidence, and even choice of subject areas or professions. However, the influence varies based on gender. Male students tend to demonstrate higher characteristics of internal locus of control; causing them to believe that their efforts and abilities are responsible for their performance while female students often exhibit features of external locus of control; maintaining the believe that their performance is subject to teachers' preferences, authority and discrimination. Drawing a conclusion from the analysis and results of the study therefore, it is concluded that internal and external belief systems of the senior secondary students influence their academic performance in Minna Educational Zone.

RECOMMENDATIONS

On the basis of the findings of this study, the following recommendations have been made:

1. Educational institutions should integrate programmes that will raise awareness about locus of control among parents, teachers, and students. This can include workshops and seminars to help students understand the impact of their beliefs and abilities on their academic activities and performance.
2. School psychologists and counsellors should work in collaboration with parents and teachers through school engagement and communications to set realistic goals and learning targets for students. This will enable them to cultivate and maintain the belief that their levels of efforts can determine their level of performance in the school.

Conflict of Interest: The authors declared no conflict of interest.

Acknowledgements: The authors acknowledge the literature and resource materials consulted in the course of this study. Specifically, the input from the supervisor, Dr. Mohammed Ibrahim Baji, Department of Counselling Psychology, Faculty of Education and Arts, Ibrahim Badamasi Babangida University, Lapai, Niger State-Nigeria is profoundly appreciated.

Disclaimer Statements: This work is an unpublished original M.Ed Dissertation in Educational Psychology submitted to the School of Postgraduate Studies, Ibrahim Badamasi Babangida University, Lapai, Niger State-Nigeria.

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Authors Level of Contribution:
Abdullahi Ahmed Barkuta drafted the proposal and collected data under the supervision of his supervisor.
Mohammed Ibrahim Baji proof read the proposal, reviewed and refined the work for publication.

REFERENCES

Abubakar, A., Abdulkadir, M., & Abdulkarim, A. (2018). Predictive value of locus of control on academic performance of senior secondary school students in Sokoto metropolis, Sokoto, Nigeria. *IOSR Journal of Research & Method in Education (IOSR-JRME), 8*(4), 27-36.

Adepoju, T. (2021). Gender age and locus of control as correlates of remedial learner's attitude towards english language. *African researchers Review, An International Multi-Disciplinary Journal, Ethopia*, *4* (1), 109-117.

Baji, M. I., Sani, D. I., Mamman, A. R., & Ugochukwu, A. (2015). *A handbook on fundamentals of educational research*. Havilah Kingdom Press.

Cakir, E., & Mustafa, S. (2017). Investigating prospective teachers' perceived problem-solving abilities in relation to gender, major, place lived, and locus of control. *Universal Journal of Educational Research, 5*(6), 1030-1038.

Chinedu, O., & Nwizuzu, C. (2021). Relationship between locus of control and academic achievement of secondary school students in Abia state. *Journal of Analytical Sciences, Methods and Instrumentation, 11*, 15-22.

Coleman, M., & DeLeire, T. (2021).An economic model of locus of control and the human capital investment decision. *The Journal of Human Resources, 38*(3), 701-721.

Corbin, A. (2019). Assessing differences in learning styles: Age, gender and academic performance at the tertiary level in the Caribbean. *Caribbean Teaching Scholar*, *7*, 67-91.

Dincer, F. (2018). Investigation of the relationship between locus of control, self-esteem and academic success of high school students. *Journal of Education and Practice, 9*(12), 1-11.

Fakeye, D. O. (2011). Locus of control as a correlate of achievement in English as a second language in Ibadan. *The Journal of International Social Research*, *4*, 546-552.

Fonagy, P., & Smith, J. (2018). Locus and mental health problems in adolescents. *Journal of Adolescence*, *66*, 37-45.

Garcia, M., Hernandez, R., & Smith, J. (2023). Examining locus of control among high school students. *Educational Studies*, *78*(3), 321-334.

Gonzalez, M., & Smith, K. (2023). Exploring gender differences in locus of control and academic performance: A meta-analysis. *Journal of Applied Developmental Psychology, 45*, 1-15.

Hussein, R. (2018). The relationship between locus of control and academic achievement among university students. *International Journal of Academic Research in Business and Social Sciences*, *8*(3), 31-45.

Johnson, A., & Brown, K. (2023). External attribution and academic achievement in secondary schools. *Journal of Applied Psychology, 58*(4), 489-502.

Li, J. Lepp, A., Barkley, J. E. (2021). Locus of control and cell phone use: Implications for sleep quality, academic performance, and

subjective well-being. *Computer in Human Behaviour, 52*, 450-457.

Mahmud, M., & Nur, S. (2018). Exploring students' learning strategies and gender differences in English language teaching. *International Journal of Language Education*, *2*, 51-64.

Margolin, J. (2021). Locus of *Control's Mediating Influence on Academic Performance. Journal of Educational Psychology, 113*(4), 589-605.

Niger State Ministry of Education, (2022). Niger state ministry of education school census, Minna.

Nowack, K. M. (2021). Locus of control and academic achievement. *Encyclopedia of Personality and Individual Differences* (pp. 1-4).

Ogunyemi, A. O., & Olaoye, A. A. (2019). Locus of control and academic performance of secondary school students in Ekiti State, Nigeria. *International Journal of Education and Research, 7*(1), 1-10.

Oyewole, B. K., & Oyewole, O. O. (2018). Locus of control and academic performance among undergraduate students in selected universities in Oyo State, Nigeria. *International Journal of Education and Research, 6*(1), 1-10.

Oyinloye, G. O., & Oyinloye, O. O. (2020). Locus of control and academic achievement of secondary school students in Kwara State, Nigeria. *International Journal of Education and Research, 5*(1), 1-10.

Ramesh, W. (2020). Effect of gender and location on locus of control among college students. *Indian Journal of Health and Wellbeing*, *7*(4), 458-460.

Radhika, K. (2018). *Factors influencing the students' academic performance in secondary schools in Nigeria*. Research Gate.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement psychological monographs. *General and Applied, 80,* 52.

Schultz, D. P., & Schultz, S. E. (2021). The role of locus of control in daily life. *Personality and Social Psychology Bulletin, 40*(1), 121-131.

Schunk, D. H. (2020). *Learning theories: An educational perspective.* 6th edition, Pearson Education Inc.

Spector, P. E., Chen, P. Y., & O'Connell, B. J. (2022). Relationships between locus of control and job performance: A meta-analytic review. *Journal of Applied Psychology, 107*(1), 1-20.

Stoet, G., & Geary, D. C. (2018). The gender-equality paradox in science, technology, engineering, and Mathematics education. *Psychological Science*, *29*(4), 581-593.

Suleiman, A. (2023). Factors that affect student's academic achievement in the faculty of social science at the University of Bosaso, Growe, Somalia. *Open journal of social science*, *11*, 446-461.

Thomas, G. (2015). Gender differences in the academic locus of control beliefs of young children, *Journal of Personality and Social Psychology*, *3*, 562-572.

Wang, L. (2020). Locus of control and academic performance: A meta-analysis. *Personality and Individual Differences, 5*(5), 10-69.