International Journal of Counselling, Psychology and Human Developmment (IJCPHD)
Issue 1, Number 3, 2025 ISSN: 2955-0866
Website: https://ijcphd.org

COUNSELLING IMPLICATIONS OF SOCIO-CULTURAL VALUES ON ACADEMIC PERFORMANCE OF SENIOR SECONDARY SCHOOLS' STUDENTS IN MATHEMATICS IN SARDAUNA EDUCATION ZONE, TARABA STATE, NIGERIA

Jutin Zachariah[1], Naomi Nuhu Adamu[2]

Department of Counselling, Educational Psychology and Human Development
Faculty of Education
Taraba State University, Jalingo

Corresponding Author Email: jutinzachariah@gmail.com,

ABSTRACT

This study investigated the counselling implications of socio-cultural values on Academic performance of senior secondary schools' students in mathematics in Sardauna Education Zone, Taraba State, Nigeria. The study was guided by two objectives, two research questions, and two null hypotheses. The study adopted a descriptive survey design. The total population of this study was 4917 students from twenty eight (28) public senior secondary schools in Sardauna education zone Taraba state, Nigeria. A sample size for this study was 400 students who were selected from fifteen public senior secondary schools. The instrument used for data collection was "Students' Socio-Cultural Values Questionnaire (SSVQ)." A reliability coefficient of 0.76 was obtained using Cronbach Alpha method. Data collected was analyzed using mean and standard deviation to answer the research questions while inferential statistics of Linear Regression was used to test the hypotheses at 0.05 level of significance. Findings of this study revealed that all the socio-cultural values considered in this study which include Cultural, Educational, Moral and Social value impact on students' academic performance in mathematics. Also, the study revealed that there was significant impact of socio-cultural values on students' academic performance in mathematics. The study concluded that socio-cultural values impact on students' academic performance in mathematics. Based on the findings, the researcher recommended that Mathematics teachers, parents and all who come in contact with the students should encourage them to develop more positive attitude towards Mathematics.

Keywords: Counselling, culture, socio-cultural values, students' attitude, academic performance

INRODUCTION

There has been an increased demand for the improvement of the students' academic performance in Mathematics. According to Akintoye, and Saliu, (2020) academic performance refers to the outcome of education; the extent to which the student, teacher or institution have achieved their

educational goals. Academic performance in mathematics is the ability to study and remember facts and being logically communicate verbally or written on the science language. Academic performance of students is a key feature in education. It is considered to be the centre around which the whole education system revolves. This is because knowledge of Mathematics is an essential tool in our society.

Mathematics is one of the most important branches of science and a core subject in science which plays important role in the day-to-day activities of man. It occupies a very sensitive position in all science-oriented courses such as engineering, accounting, banking, mining, medicine and many others. Students who will pick up careers in sciences and engineering must have undergone training in Mathematics in their secondary school level and must not only be good in Mathematics but must have passed the subject at least at credit level in the Senior Secondary School Examination (SSCE). Mathematics is core subject in the school curriculum, which acts as a bridge for all knowledge. Abosalem (2016) said that mathematics is the bedrock and a tool for the scientific, technological, and economic advancement of any country. Afzal and Islam (2017) opined that a common belief of educationists that no one can make progress in any field without having the basic knowledge of mathematics. Mathematics is the foundation of science and technology without which a nation will not prosper and achieve economic independence. The major two objectives of Mathematics are to prepare students for useful living within society and to prepare students for higher education.

The impact of students' academic performance in Mathematics had been observed in four ways. These includes: cultural, educational, moral and social value.

Every culture in society has set of values, beliefs, traditions and habits known as their socio cultural values. Patricia (2020) defined Socio-cultural as a wide array of societal and cultural influences that impact thoughts, feelings, behaviors, and ultimately outcomes of the students' academic assessment. Kowot, (2017) said that "Socio-cultural values are the forces within societies that deal with social and cultural values that influence the thoughts, behaviors and feelings of the students in secondary schools. These include language, law, aesthetics, religion, values, attitudes, social organizations, family and community. Li and Ruan, (2017) added that Socio-cultural values are shared norms and attitudes of a people that form a community while culture according to Agha, (2016) is a "totality of how people live and behave." It is about a people's way of life, their heritage and language; pride and uniqueness as a people. Akufor (2021) opined that students were faced several challenges that affected their schooling process and could affect academic endeavour. He opined that socio-cultural issues such as bewitched, demons, bad lacks, curse and fear. Base on the above definition, cultural value the basic principle, belief, norm, taboo and practice of a given tribe can either influence the students negatively or positively, example male education are more valued than female. This means that female education is negatively affected by culture.

Educational value according to Unachukwu (2021) deals with the transmission of value from one person to another with the aim of influencing the behaviour of an individual positively. It can take place either formally or informally. According to Joshi (2018), education value is an explicit attempt to teach about values and/or valuing. Emmanuel (2021) said that, educational value is a sort of education that shapes one's characteristics and features and directs one into gaining values that establish social and global foundations for character. This means that educational value seeks to shape the character of an individual with the aim of influencing students' social lives. who may be older, in authority or more experienced, to make explicit those values underlying their own behaviour, to assess the effectiveness of this value and associated behaviour for their own and others' long term wellbeing and to reflect on and acquire

other values and behaviour which they themselves realize are more effective for long term wellbeing of self and others. Educational value according to Creswell (2019) refers to any explicit and /or implicit school-based activity that promotes student understanding and knowledge of values and to inculcate the skills and dispositions of students so that they can enact particular moral value as individuals and members of the wider community.

Statement of the Problem

In Sardauna education zone, evidence of high enrolment and massive failure in tests, home works, internal examinations in mathematics are very high among the senior secondary schools' students and these have scared many students and discouraged them from intrinsic desire to study the subject. Similarly, Socio-cultural factors have affected students' performance in the zone. these includes: tribal affiliates, traditional beliefs, cultures and occupation, peer related factors, occupation of the parents, social and economic status have caused on students low performance in mathematics.

The students' related factors include anxiety towards Mathematics, students' self-efficacy and self-concept, motivation and attitude of students toward Mathematics has become a great concern and worrisome. Because of anxiety, many students considered mathematics as difficult subject that had being introduced to punish the students, this is so because they are poorly motivated and thereby they did not consider mathematics as fundamental core subject. The attitude students hold towards Mathematics determines how they approach the subject.

The schools have tried to curb these factors that had influenced the poor academic performance in mathematics but it didn't succeed. These factors play crucial roles in influencing students' attitude towards Mathematics. This kind of attitude prevents students from performing well in their class of mathematics. Attitudes and practices towards the learning of Mathematics are affected by beliefs, emotions, social context and content knowledge. That is to say that many students see Mathematics as a difficult task. They learn Mathematics with low enthusiasm and just for the sake of the grade for the next level in their studies.

Furthermore, this study aims to fill this gap in knowledge and provide insights that can inform the development of effective counselling and academic performance among the senior secondary schools' students in Sardauna Education Zone, Taraba State, Nigeria. The rationale for this study therefore is to explore the "Counselling implications of socio-cultural values on academic performance among senior secondary school students in Mathematics in Sardauna educational zone Taraba state."

Purpose of the Study

The primary purpose of this study is to investigate the counselling implications of socio-cultural values on academic performance of senior secondary school students in mathematics in Sardauna education zone. Specifically, the study determined:

i. The counselling implications of cultural value on academic performance of senior secondary schools students in mathematics in Sardauna Education Zone, Taraba State Nigeria
ii. The counselling implications of educational value on academic performance of senior secondary schools students in mathematics in Sardauna Education Zone, Taraba State Nigeria

Hypotheses

Ho_1: Cultural value has no counselling implications on academic performance of senior secondary schools students in mathematics in Sardauna Education Zone, Taraba State Nigeria

Ho_2: Educational value has no counselling implications on academic performance of senior secondary schools students in mathematics in Sardauna Education Zone, Taraba State Nigeria

LITERATURE REVIEW

Academic performance in mathematics is an assessment that measures a student's academic performance in mathematics. It typically involves tests, projects, quizzes, take homework, or other assessment tools that measure a student's knowledge, skills, abilities related to mathematics. The impacts of academic performance in mathematics could be investigated as follows: students' attitude and perception toward mathematics, teachers' attitude, and perception toward mathematics, teaching methodologies of mathematics teachers, quality and performance of mathematics teachers, and the effectiveness and relevance of mathematics curriculum were the five factors had been observed by the researcher to be influencing students' academic performance in mathematics at the senior secondary schools in Sardauna education zone.

Cultural value plays vital roles in academic pursue of a student in senior secondary schools. According to Ho (2024) culture is defined as a way of life of a group of people, the behaviours, beliefs, values, attitudes and symbols that they accept, and that are passed along by communication and imitation from one generation to the next. Culture is the entity that incorporates the totality and is synonymous with the people's way of life, transmitted from age to age, generation to generation. Culture is "The sum total of human creations, intellectual, technical, artistic, physical and moral. Culture is the complex part of living that directs human social life. The things each generation must learn and to which they eventually may add. Culture distinguishes human being from other animals, in that human are able to construct patterns of behaviours for themselves, and are able to transmit this from person to person and through generations. The study of culture is the key component of sociology along with the associated notion of socialization, and of social anthropology. In a nutshell, culture is a way of life of an individual or group of individuals. Culture can refer to the customs or artistic achievement of a particular community or people in social, moral, historical laws, and developmental stages. A group of people who share things such as language, values, tradition, and ways of doing things are said to possess a common culture. When most students share the culture, it is called the majority or dominant culture. The ability to give every child a chance to succeed in school depends upon a full understanding of culture and learning. This is because, according to Khan (2024) culture and education are closely related; while culture provides the content to learn, education preserves and transmits the cultural values.

Exploring the influence of culture on mathematics learning in Sardauna is crucial for educational development. Understanding this impact is a key to improving learning outcomes. The researcher has examined how cultural beliefs, norms, and practices influence the teaching and learning of mathematics in Sardauna education zone. Nigeria's diverse cultural landscape affects students' attitudes, motivations, and performances in mathematics. Recognizing and addressing these cultural factors can enhance mathematics education and student success.

Educational value and the aspirations enhance students' ability in mathematics and it plays a significant role in shaping student outcomes. Societies that promote social mobility through education provide opportunities for students from diverse socioeconomic backgrounds to excel

academically (Torche 2021). Also educational value related to aspirations and future goals inspire students to set ambitious academic targets, fostering perseverance and commitment to education (Khan 2024). These aspirations, often tied to the belief that education is a pathway to success, motivate students to strive for excellence, even in the face of challenges. Cabuquin (2023) said that, educators have developed teaching materials that aid value to teaching and learning to enhance learning performance of the students in mathematics.

Methodology

The design adopted for this study is descriptive survey. According to Ajai and Amuche (2015) a survey research endeavours to overview, look into, gather facts, determine and interpret the nature or status of things in wider magnitude. Survey research gathers information from a relatively large number of people or items considered to be representative sample of the population. In a survey research sampling is involved and this requires a vast knowledge of sampling theory. The sample population in survey research enables us to draw conclusions or make inferences on an entire target population.

The total population of this study is four thousand nine hundred and seventeen (4917) students and twenty eight (28) public senior secondary schools in Sardauna education zone Taraba state according to data census collected 2023/2024 academic session. (Taraba State Ministry of Basic and Secondary Education (TSMBSEJ) 2023 Annual School Census).

The total sample for this study is 400 students in Sardauna education zone, Taraba state, Nigeria. The Sample was determined using Sloven's formula. The Sloven's formula was given as follows: $n = \frac{N}{(1+N(e)^{2})}$. Where n is the sample size, N is the population size and e is the margin of error. And if the sample size required =? The population size = 4917, the error of sampling = 0.05

Thus, $n = \frac{4917}{(1+ 4917(0.05)^{2})}$

$n = \frac{4917}{(1+ 4917(0.0025)}$

$n = \frac{4917}{(13.2925)}$

Therefore, n is approximately 400.

The sample for this study is 400 students.

The instrument used for data collection was a structured questionnaire titled "Students' Socio-Cultural Values Questionnaire (SSVQ). The instrument SSVQ had forty items and was divided into four clusters, thus, A, B, C, D. Each cluster contains ten (10) items. Cluster "A" comprised ten items on cultural value on students' academic performance in mathematics, Section "B" comprises of ten items on educational value on students' academic performance in mathematics, Section "C" comprises of ten items on moral value on students' academic performance mathematics, Section "D" comprises of ten items on social value on students' academic performance in mathematics. The instrument had a 4-point response option of. Strongly Agree (SA) 4 points, Agree (A) 3 points, Disagree (D) 2 points and Strongly Disagree (SD) 1 point.

RESULTS

Null Hypothesis 1 ($H0_1$): Cultural value has no counselling implications on academic performance of senior secondary schools' students in mathematics in Sardauna Education Zone, Taraba State Nigeria

Table 1: linear regression analysis on Cultural value has no counselling implications on academic performance of senior secondary schools' students in mathematics in Sardauna Education Zone, Taraba State Nigeria

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence **Interval** for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	14.521	3.022	.026	4.805	.000	8.557	20.486
	CV	.042	.120		.352	.725	-.195	.279

A linear regression analysis was conducted to examine whether cultural value has counselling implications on the academic performance of senior secondary school students in mathematics in Sardauna Education Zone, Taraba State, Nigeria. The results, as summarized in Table 5, indicate that cultural value is a significant predictor of academic performance, (B= 0.042), t(352)=4.805, (p <.001). The standardized beta coefficient (beta =.120) further emphasizes the positive association between cultural value and academic performance. Consequently, H01 is rejected, indicating Cultural value has counselling implications for students' mathematics performance. Consequently, the null hypothesis ($H0_1$) stating that cultural value has no counselling implications on academic performance is rejected, indicating no meaningful relationship between Cultural Value and academic performance in this context.

Hypothesis 2 ($H0_2$): Educational value has no counselling implications on academic performance of senior secondary schools students in mathematics in Sardauna Education Zone, Taraba State Nigeria

Table 2: linear regression analysis on educational value has no counselling implications on academic performance of senior secondary schools' students in mathematics in Sardauna Education Zone, Taraba State Nigeria

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	18.880	4.170		4.528	.000	10.652	27.109
	EV	-.123	.155	-.059	-.795	.428	-.429	.182

a. Dependent Variable: AP

A linear regression analysis examined whether educational value has counselling implications on the academic performance of senior secondary school students in mathematics. The results in Table 6 indicate that educational value is not a significant predictor of academic performance (B=0.123), t(352)=0.795), (p=0.428). The standardized beta coefficient beta = -0.059) suggests a negligible and non-significant association. These results retain the null hypothesis (H02), implying that educational value has no counselling implications for academic performance in this context. These findings suggest that educational values may not significantly influence academic

performance, prompting the need to explore other factors such as teaching methods, student motivation, or socio-economic conditions.

Discussion of Findings

The finding is in agreement with Mulala (2019) which revealed that cultural diversity significantly influence student's academic performance in Sardauna Education Zone and cultural factors such as religious system practice by the students families, cultural festivals, cultural ways of dressing, home environment of the students, certain cultural belief within the community, relating with students from other tribes, parental cultural background, cultural values, behaviour and expectation from the students family could influence students' learning in mathematics. They further identified cultural factors that enhance academic performance of students to include; language, race, customs, interaction patterns, religion, mode of dressing and eating, ethnicity, attitudes. Findings is also in consonance with Moldes and et al (2019) who maintained that students come to school with a history of learning influenced by the cultures of their homes and neighborhoods and that some attitudes and values complement learning and others do not. This showed that there was significance influence of the belief of students in cultural concepts on their academic performance in Mathematics with many of the students performing below average. This is an indication that the misconceptions held by students have negative influence on their academic performance in Mathematics.

These findings suggest that educational value may not significantly influence academic performance, prompting the need to explore other factors such as teaching methods, student motivatin, or socio-economic conditions, school climate and study habits.

The findings of the study is also in line with Mbugua (2016) who found that excessive involvement in clubs and organizations by students does not have a significant effect on academic performance, membership in student cults (cultism) and romantic relationships does have a significant negative effect on students' academic performance. Others include the following factors and activities: societal culture, social learning, ceremonies, and use of local languages, witchcraft, beliefs, spiritualism, unprogressive discipline, inconsistent school labour, boy/girlfriend relationship, and peer group influence. It also includes unqualified teachers, laziness, social violence, girls' teenage unwanted pregnancy, poor Counselling, truancy, cultural barriers and instability of government policy on educational system. These scenarios have led to unbaked students' academic performance in mathematics in Sardauna educational zone.

Conclusion

The strategies discussed are practical measures, which would help to motivate students in the study of mathematics. It is the belief of this researcher that most of the problems that manifest in school environment in Sardauna Educaton Zone, Gembu, Taraba State and which constitute hindrances to the effective teaching and learning of mathematics could be solved or enhanced through simple counselling. Parents, Teachers, Guardians therefore, have significant roles to play in the lives of students through effective counselling to improve their performances in mathematics.

Recommendations

i. In order to arouse students' interest in mathematics, teachers should ensure that prep-time and other free periods in schools are mapped out for tackling mathematics questions and exercises

ii. Parents should discourage their wards from spending more time watching movies, television and other non-gainful ventures at home rather, they should be told to do their home works to enhance better performances in mathematics.

REFERENCES

Abosalem, Y. (2016). Khalifa University Students' Attitudes towards Mathematics in the Light of Variables Such as Gender, Nationality, Mathematics Scores and the Course they are Attending.Education Journal 2015; 4(3) 123-131.

Afzal, M. Saleem, K. & Islam, M. (2017). Students' Attitude Towards Mathematics: Does Classroom Learning Environment of Single-Gender Classes Make Any Difference?

Ajai, J. & Amuche, C. (2015). Educational Research Methods and Statistics. Academic House Publishers Nig. Ltd. Suit C64, Mangu Plaza Area 10 Abuja.

Cabuquin, J. C. & Abocejo, F. T. (2023). Mathematics learners' performance and academic achievement at a public high school institution in Leyte, Philippines. Formatif: Jurnal Ilmiah Pendidikan MIPA,13

Dzokoto, V., & Adams, G., (2019). "Cultural Competency in Counselling in Africa: Reflections on the Need for Counsellor Training", African Journal of Psychiatry19(1), 53-56.

Eby, J. W., & Dorman, W., (2017). "Pastoral counselling and confidentiality: An exploratory study", Journal of Religion and Health 55(2), 523-532.

Emmanuel, Saada S. (2021). "Exploring the Link Between School-Community Relationship in Enhancing Public Students' Academic Performance in Public Secondary Schools in Muheza District, Tanzania."Master's thesis. The Open University of Tanzania.

Ezigbo, E. N., (2017). "Counselling Training in Africa: Status, Challenges, and the Way Forward", International Journal of Psychology and Counselling9(2), 24-32.

Ho, Shelen. (2024). "Culture and Learning: Confucian Heritage Learners, Social-Oriented Achievement, and Innovative Pedagogies. "In Diversity and Inclusion in Global Higher Education, 117-159.Palgrave Macmillan.

Khan, Gohar (2024). Empowering Young Leaders: How Your Culture and Ethos Can Enhance

Student Leadership Within Your School. Taylor & Francis

Mbugua, Z. K. (2016). Factors contributing to students' poor performance in mathematics at Kenya Certificate of secondary education in Kenya: Acase of Baringo county, Kenya. American International Journal of Contemporary Research, 2(6),87-91.

Moldes, V. M., Biton, C. L., Gonzaga, D. J., & Moneva, J. C. (2019). Students, peer pressure and their academic performance in school. International Journal of Scientific and Research Publications,9(1), 300-312

Mulala, S. K. (2019). Factors Influencing Students' Attitudes towards Mathematics and Its Effects on Performance of Mathematics among Secondary School Level Students in Kenya. A Case Study in Mukaa Sub-County in Makueni County-Kenya.

Mutodi, P. (2024). The Impact of Parental Involvement on Student Performance: A Case Study of a South African Secondary School. Mediterranean Journal of Social Sciences, 5(8), 279 –289

Mwalongo, L. J. (2021). "The Role of Traditional Cultural Beliefs Ceremonies on Girl's Access to Secondary School Education Provision in Tanzania: A Case of Bena Tribal in Njombe, Tanzania."European Journal of Education Studies 5(4): 207-217. Doi: 10.5281/zenodo.1476711