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DEWEY'S PEDAGOGY OF INTEREST AND THE PERFORMANCE OF STUDENTS IN MATHEMATICS: A SURVEY OF SCHOOLS IN BABESSI SUB-DIVISION, CAMEROON

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Abstract:
John Dewey contends that interest plays a primordial role and determines a student's performance in the teaching-learning transaction. This paper sets out to investigate this theory within the experience of students' interests and performance in Mathematics. In order to attain this objective, we adopted a descriptive survey design. The target population of this study comprised all forms five students in government secondary (grammar) schools Babessi sub-division. Purposive sampling was used to select the type of school and random samplings were used in selecting the schools and students. The questionnaires were administered to students as a means of collecting data. The accessible population was 138 students from the four selected schools. Both descriptive and inferential statistics were used to analyze the data. The hypothesis was tested with the use of the Pearson product moment correlation at a 0.01 level of significance. The study found that students' interests have significant effects on their performance in Mathematics. The students generally have interest in Mathematics, though this alone may not significantly provide good performance as seen in their Mock results for the 2017/2018 academic year where they had 14% pass in Babessi Sub-division. There are other mediating factors including student effort and commitment that may connect interest and performance. Also, from the findings, the students' interests in Mathematics did not reflect their performance. This could be attributed to other intervening variables which are not considered by this study. Based on these findings, we recommended that curriculum designers and teachers should articulate subject-integration where Mathematics is taught as an essential curricular value for all other career subjects. This is the basis to reinforce students' interests and performance in the subject.

Keywords: interest; academic performance; mathematics

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1. Background of the Study

The invaluable role of Mathematical skills in all spheres of life cannot be overemphasized. Mathematics play a key role in shaping how individuals deal with the various spheres of private, social and civil life (Renniger, 1998). It can be defined as the science of numbers and space which serves as the language of science and technology. From the exigencies of reasoning and problem solving, Ngalim (2018) contends that Mathematics is the queen and servant of all school subjects. This educational value is an integral part of human existence but it does not receive the necessary interest, attention and effort it deserves. For these precise reasons, I am particularly interested in the relationship between having interest in the subject and performing well in it.

In the General Certificate of Education, Mathematics is a compulsory subject (Ngalim, 2014b). It is regrettable therefore, that at the initial stage of secondary education many students start showing disdain for Mathematics. This attitude often impacts on their performance in the certificate examinations. It is also noticeable that many students have had negative experiences in the study of Mathematics. Some of these experiences might have been poor teaching practices in classrooms, societal prejudices about the subject and in- adequate provision of proper interesting learning practices (Zahorik, 1996; Zan& Martino, 2008). However, the success of learning Mathematics as a subject is contingent on a myriad of factors. These may be the classroom practices in school, the student's aptitude and attitude and the teacher's ability to bridge the gap between his/her mastery of the subject matter and methods used to teach (Dewey, 1990; Ngalim, 2017).

Historically, Mathematics was very prominent in the *Akademia* of Plato following his influence from the Pythagoreans. At this time, particular emphasis was laid on Geometry (Copleston, 1993; Stumpf et al., 2003). Mathematical knowledge was considered as a pre-requisite for the philosophical enterprise. With the advent of Aristotle, Plato's pupil, and with his school *Lyceum*, interest in Mathematics degenerated and emphasis was laid on Traditional Logic (Copleston, 1993). However, today, Logic constitutes part of Mathematic studies. It is claimed that the myth surrounding Mathematical experiences of students is widespread especially in the developing countries. Ngalim (2018) opined that, many students portray a *phobia* for Mathematics thereby feeling powerless in the presence of Mathematical problems/obstacles. The prejudices of students in this subject lead them to regard Mathematics as complicated, abstract and sensitive to the masculine gender. Some educators propagate this myth by maintaining that learning Mathematics is limited to ability rather than effort. In other words, they subscribe to the thesis that there is an inherent natural ability for Mathematics (Ponte et al., 1991). This approach to the subject compromises the interest of some ambitious pupils or students who start experiencing failure or poor performance in Mathematics at the early stages of education. In this context, they exclude themselves from the privileged elites of Geometry and numerical reasoning (Zan& Martino, 2008; Hidi, 1990). This leaves the impression that only those

who have been born with Mathematical aptitude should be concerned with studies in this domain.

Considering the context of the study, Mathematics is studied in both the Anglophone and Francophone sub-systems of education in Cameroon. However, in the Anglophone sub-system, the subject is only compulsory at the first cycle of the Secondary School (Ngalim, 2014b). Some students only sit in for the subject in the General Certificate of Education, probably because it is mandatory to do so in order to get one's results or to fill the answer booklet with whatever information given that they paid for it. Considering the performances of students in this subject in secondary schools and the frustration they get in higher education because of lack of basic Mathematical competences, one wonders whether there are no alternative ways of enhancing students' interest in this invaluable scientific study (Ngalim, 2017).

1.1 Statement of Problem

Considering the *phobia* for Mathematics, probably being prompted by prejudices, inappropriate teaching methods and lack of interest of proper orientation, some students tend to stay away from classes in Mathematics. They nurture the impression that they can never get along with this subject. Advocates of innate ideas like Rene Descartes, Baruch Spinoza and Wilhelm Leibniz hold that we are born with knowledge and experience have no relevance in our process of knowledge. On the other hand, empiricists like John Locke's *tabula rasa* thesis and George Berkeley's "*esse est percipii*" contend that no knowledge is innate, because experiences lie at the basis of the acquisition of knowledge. Owing to these controversial theses on the acquisition of knowledge, some persons maintain that competence in Mathematics is inborn/innate whereas others think that providing the best teaching experiences can enhance the acquisition of Mathematical skills. Some teachers propagate the impression that Mathematical knowledge is God-given. For those who do not have they do not need to bother. Consequently, some students lack interest in this subject and this has a telling influence on their performance in the subject. The high rate of absences in Mathematics classes and exams (GCE result booklet for the 2016/2017 academic year), stereotype beliefs about Mathematics and Mathematics *phobia* amongst students reveal the diminishing interest students have towards Mathematics. However, despite the usefulness of Mathematics in everyday life and in other subjects, careers and professions, Mathematics may not have been enjoying the popularity it ought to have had throughout the world, including Cameroon. Cognizance of the fact that Mathematics and precisely, competences in Mathematics are indispensable for every profession in life, this study sought to inquire whether the interests of students influence their performance in Mathematics.

1.2 Purpose of the Study

This study seeks to inquire whether the interests of students in Mathematics influence their performance in the subject.

1.3 Research Question

To what extent does interest affect the academic performance of students in Mathematics?

1.4 Research Hypothesis

Ha: Perhaps, there is a significant relationship between students' interest in Mathematics and their academic performance in the subject.

1.5 Significance of the Study

The importance of this study lies in the fact that it explains the degree at which interest influences the performance of students in Mathematics. It does not suffice to say I am interested in Mathematics and subsequently obtain a good performance in the subject. It is not also appropriate for the teacher to complain that students are not interested in Mathematics. Hard work and interesting teaching techniques serve as the foundations of the students' interest in the subject. This study provides exploitable findings to students, teachers and the school administrators. First, it enlightens students to be conscious on the debate surrounding Mathematical competences. This is to inspire their adjustment and demystify the subject. Second, this paper leads teachers to understand the need to demystify Mathematics with interesting pedagogic strategies. It guides the teachers to a proper understanding of interest, thereby deconstructing misguided pedagogic prejudices. Finally, this study enables school administrators and other educational stakeholders to plan and carryout seminars, workshops and conferences on interesting teaching strategies and techniques in Mathematics.

1.6 Justification of the Study

The importance of mathematical skills as initially indicated cannot be overemphasized**.** This study therefore deconstructs misconceptions and myths surrounding mathematical knowledge. This approach is of capital importance because Mathematics is not reserved for the elites of Geometry. Mathematical knowledge is a human right that requires a democratic approach in the dissemination of the knowledge. In this perspective, Dewey's conception of interest and discipline provides a pedagogic platform to realize this objective (1966).

1.7 Scope and Delimitation of the Study

Geographically, this study has been carried out in Babessi Sub-division. This is one of the three Sub-divisions that make up Ngoketunjia Division of the North -West Region of Cameroon. It is located along the Bamenda- Kumbo stretch of the ring road, about 73km from Bamenda town. It is made up of four villages namely; Babessi, Bangolan, Baba 1 and Babungo; with Babessi being the sub-divisional Headquarter. Content-wise, this study is limited to the influence of interest on the performance of students in Mathematics in Form Five of Secondary Grammar Schools in the four villages that make up Babessi sub-division. Form five is chosen because it is an examination class where

students are evaluated on the entire Secondary School Mathematics curriculum. The assumption here is that students in all Secondary Schools in Babessi Sub-division have equal chances, privileges, opportunities and facilities in the study of Mathematics.

1.8 Definition of Key Terms

The key terms to be explained in this study include; interest, performance and Mathematics. First, interest refers to the needs, experiences, capacities, aims, ends and desires of learners (Dewey 1966; Dewey, 1900). It is a feeling one has when one wants to know more or learn about somebody or something. "*It is the quality that something has when it attracts a person's attention or makes him wants to know more about a thing*" (Ngalim, 2018 pp.201-215). To be interested in something or in doing something means to give attention to an activity because you enjoy finding about it, or doing it: showing interest in something and finding it exciting. For instance, a student can be interested in Mathematics. Mathematics is the science of numbers and space and at the same time serves as the medium for science and technology (Wilkins, 2004). It is a core subject, that is, it is a compulsory subject to pupils and students in both primary and secondary levels of education.

Performance in this context designates the knowledge attained or skills developed in school subjects obtained by test and examination scores or marks assigned by the subject teacher.Thus, performance measures the aspect of behaviour that can be observed at a specific period. To determine performance, a performance test is conducted. A performance test is a type of mental test in which the student is asked to do something rather than to say something. Academic performance of a student however can be regarded as the observable and measurable behaviour of a student in a particular situation (Ngworgu, 2015). For example, in scientific studies, a students' academic performance consists of his/her scores at any time obtained from a teacher made test, first term examination, mid-semester test and so on. Therefore, we can equate academic performance with the observed behaviour or expectation of achieving a specific statement of educational intention or outcome.

1.9 Theoretical Framework

The main idea is this study is Dewey's pedagogy of interest. He explains the meaning of interest by underlining the various aspects of its ordinary usage. In the first place, he contends that the term interest means "*the whole state of active development, the objective results that are foreseen and wanted, and the personal emotional inclination*" (Dewey, 1966 p.126). Interest refers to a point in which something touches or engages a man; making an influence on him. In the context of the study, a person who has interest in Mathematics gets influenced by the subject thus improving in performance (Renniger, 1985). Dewey also contends that "interest" can also mean someone's personal attitude towards something. To be interested is "*… to be absorbed in, wrapped up in, carried away by some object*" (Dewey, 1966 p.102). To take interest therefore means to be on the alert, to care about or to be attentive. Here, interest reinforces one's will towards the desired

object. Dewey contends that a man of strong will deploys untiring efforts to carry out his aims. Also, he presents interest as desire. It is a conscious, intellectual and stimulating feeling. Dewey distinguishes it from blind feelings or animal appetite, which is not conscious of its own goal. One who desires knows or is conscious of the object of his desire. First, Dewey contends that desire must be purely intellectual (Dewey, 1907; Dewey, 1966).This is the case where one is sufficiently interested in a particular ideal and uses the available and necessary steps to achieve this ideal.

Dewey later conceives interest as aptitude. Every child is unique and must be educated according to his/her specific needs. He therefore argues that the importance of interest lies in the enhancement of our understanding of human differences. Not all minds function uniformly just because the same teacher taught them or because they used the same textbook. Natural aptitude, past experiences and plans of life make people's response to the same material to vary. In this case, interest serves as a guide to the activities of the teacher. The teacher has to present the subject matter in a way that is agreeable to the students or pupils' capacities. Learning is more interesting in action rather than inspection and listening. Their cognitive skills of students/pupils differ according to their different heritage and experiences (Dewey, 1966; Renniger, 1985).

Interest and discipline are good and inseparable bed fellows. Discipline is the power to endure an intelligently chosen course in the face of distraction, confusion, and difficulty. It is the power at command and the mastery of the resources available for carrying an undertaken action through. To know what one is to do and to do it promptly by the use of the required means is to be a disciplined person (Dewey, 1966). This is applicable to any lesson particularly Mathematics. Discipline in this sense is positive and helps an individual towards an end. The connection between discipline and interest comes from the fact that any deliberation without an interest is superficial. This point is explicit with the example of the dissatisfaction of parents and teachers towards children's insensitivity to Mathematics. Dewey explains that this complain comes because parents and teachers fail to see that the subject matter in question does not enter into the concerns and needs of the children. It is not part of their interest or preference. Dewey uses the intuition of the American humorist, "*it makes no difference what you teach a boy so long as he doesn't like it*" (Dewey, 1966 p.134.). The use of adequate means to render the lesson interesting is relevant to what Dewey requires from teachers. However, he cautions that this interest should not degenerate into a soup kitchen theory of education. Offering a bribe of pain or pleasure like asking students to pick a pin, smacking and sugar-coating the subject matter to win the attention of the students and force them concentrate in a Mathematics lesson is unacceptable.

There is little or no interest in exploiting Dewey's theory of interest to explain the influence of interest on the performance of students in Mathematics (Ngalim, 2014b). Mostly, negative attitudes towards the subject and unwillingness to provide textbooks to students/pupils explain decreasing interest and poor performance. Some thinkers reveal that the interests of students in the subject decrease as they progress from one class to the other (Ngalim, 2014b). The society also influences students' interests in

Mathematics although lack or shortage of facilities to study the subject continues to be prominent (Ngalim, 2014b). From a philosophical perspective, this study intends to animate the debate on interest in order to demystify the *phobia* of Mathematics. Most theories on interest have pointed to the fact that interest plays a crucial role in learning Mathematics hence it determines the student's success in the subject. Dewey has also supported the fact that interest towards a subject is an important educational outcome that should be constantly nurtured regardless of the performance level of the learners who should be guided to bring out their best abilities and potentials.

However, the weakness of Dewey's theory of interest in this study is that it may not be applicable in all circumstances in the school system since he stresses on student's individual interest in learning Mathematics. To this end, the review of the related literature concentrated on Dewey's theory of interest. Dewey's theory is however relevant to the present study but its limitation is that it may not be applicable in all situations in the classroom and school settings for the attainment of the teaching and learning goals. The test of experience in this research stands a better chance of verifying this.

2. Research Methodology

This study adopted a descriptive survey design. The views and opinions of students relevant to the study were examined. A descriptive survey method is often used to study people's feelings and attitudes about specific aspects (Ngworgu, 1999). Therefore, it was relevant to this study as interests, could not be directly measured or observed but could be inferred from certain cues which depicted the implicit nature of students' characteristics. Also, the research was aimed at capturing some of the students' beliefs, which signified attitudes and interests towards Mathematics. The study was completed using the ex-post facto research design. This means the variables under investigation were already in existence before the commencement of the entire study. None of them was created as the case with experimental research. The combination of these already existing variables permitted the researcher to obtain useful information through some well-conceived and constructed research instrument. The data were obtained using student questionnaires representing the various themes. The students' responses were organized and analyzed both descriptively and inferentially according to the research themes.

The population of this study consisted of forms five students in Secondary Grammar Schools in Babessi Sub-division. The students in form Five were particularly targeted since at that level, they had been exposed to the greater extent of the Mathematics syllabus which could have developed and stabilized their interests towards the subject. Also, they could predict where they range as far as performance in the subject is concerned. Also, the students at this level are expected to write an end of course certificate examination in which they are evaluated on the entire Mathematics

syllabus which they have been exposed to for their five years of secondary education. The target population for this study was distributed as shown on the table below.

Table 1: Target population of the study

	Number of Students		
Name of schools	**Boys**	**Girls**	**Total**
GBHS Babessi	34	41	75
GBHS Bangolan	10	06	16
GHS Baba I	13	25	38
GHS Babungo	27	39	66
GHS Vemngang	24	31	55
GBSS Mambim	04	04	08
GSS Komue	01	08	09
GSS Vengo	07	11	18
GSS Papiakum	03	03	06
GSS Kefeung	01	03	04
GSS Kaketuloh-Wushi	02	02	04
Total	**126**	**173**	**299**

Source: Divisional Delegation of Secondary Education for Ngoketunjia. Enrolment Statistics for the 2017/2018 Academic Year

The sample of this study comprised 138 students drawn from a total population of 299 students. The 138-sample size was the representative sample of the study because according to Tabachnick and Fidell (2013), the formula for calculating the sample size for social science study in which generalization will be made is the Rule of Thumb. This was calculated as follows.

Sample size $N \geq 50 + 8m$, where m is the number of indicator variable.
$N \geq 50 + 8(4)$
$N \geq 82$

Thus, the sample size of 138 is greater than 82 which is an appropriate representative of the population of the study. The sample size of the population was distributed as seen on the table below.

Table 2: Sample population

	Number of Students		
Name of schools	**Boys**	**Girls**	**Total**
GBHS Babessi	34	29	63
GHS Babungo	17	18	35
GHS Baba I	10	25	35
GBSS Mambim	02	03	05
Total	**63**	**75**	**138**

2.1 Sampling Technique

The simple random sampling was used to select four Government schools from amongst the eleven Government schools which were in operation within Babessi Sub-division at the time of this study. The simple random sampling is a method of selecting a sample from a population with all the members having equal chances to be selected. The names of the eleven Government schools were written on pieces of papers and folded. They were then dropped in a bowl and shuffled. Later on, the researcher used a five-year-old child to pick four pieces of papers and the names of the required schools were now recorded by the researcher. From the four selected Government schools the total sample size for the study was also obtained through simple random sampling. YES and NO was written on separate pieces of papers, folded and put in a bag. It was then shuffled, and the students were asked to pick out the papers from the bag. Those who picked YES were given the questionnaire to fill and those who picked NO were left out. This process was repeated until a sample size of 138 was gotten from the four randomly selected schools.

We collected data using a questionnaire. Questionnaires were the most preferred compared to other methods since it was the most appropriate method of dealing with a large sample size. The questionnaire was constructed by the researcher made up of 17 closed-ended items excluding demographic information to which respondents were expected to choose answers from the options by giving a tick to the answer they found most appropriate to them. The items on sections B to D were constructed on a 4-point Likert scale with SA, A, SD and D as response options. The validation of the instrument ensured accuracy, relevance and appropriateness in the items. Validity was also determined through piloting or pre – testing. The instrument was administered in a school with the same status as the sampled schools, but which was excluded in the final study.

A pilot test was done to establish the reliability of the instrument. Piloting was done in different schools apart from the sampled ones. The schools were of the same level or status in terms of facilities and performance. When the responses for the various schools were compared, it showed some degree of consistency. Alternatively, a test – retest was also used to estimate the degree to which the same result could be obtained in a repeated trial. One school was used to obtain responses from one instrument but at different times. The difference in time was two weeks. The responses to the two set of trial test were analyzed and the reliability was calculated using Spearman Rank Coefficient(r). The calculated value stood at 0.9 implying that there was a strong correlation between the test and re-test process. This showed that the instrument was highly reliable.

Table 3: Return Rate of Questionnaire

Name of school	Administered	Returned	Returned Rate
GBHS Babessi	63	63	100%
GHS Baba I	35	35	100%
GHS Babungo	35	35	100%
GBSS Mambim	05	05	100%
Total	**138**	**138**	**100%**

The collected data were checked, read, revised and marked. Grouping and coding was done according to the themes or variables considered for the research which reflected the objectives. The data were first captured in statistical package for social sciences (SPSS) from where analysis was done for all schools. This was meant to ease the process of comparing the factors. The method of analysis involved both descriptive and inferential statistics. In descriptive statistics, tables with frequencies, percentages and pie charts were used. In inferential statistics, the Pearson Product Moment Correlation test at 0.01 level of significance was used to test the hypotheses.

3. Presentation of findings

The findings of this study are presented following the principal objective of investigating the correlation between the students' interests in Mathematics and their academic performance in the subject. The presentation is seen in tables and then followed by the test of the hypothesis. The last aspect simply indicates the rejection of the null hypothesis in favour of the alternative hypothesis.

3.1 Students' Interests in Mathematics

Table 4: Items on students' interest in Mathematics

S/N	Items	Response options			
		SA	A	D	SD
1.	Do all students have the capacity for Mathematics?	15 (10.9%)	21 (15.2%)	44 (31.9%)	58 (42.0%)
2.	Mathematics is preferable to other subjects.	28 (20.3%)	39 (28.3%)	29 (21.0%)	42 (30.4%)
3.	Should students frequently engage in solving Mathematics problems?	70 (50.7%)	58 (42.0%)	7 (5.1%)	3 (2.2%)
4.	Students attend Mathematics classes regularly.	67 (48.6%)	56 (40.6%)	9 (6.5%)	6 (4.4%)
5.	Students should continue studying Mathematics at higher levels of education.	25 (18.1%)	53 (38.4%)	30 (21.7%)	30 (21.7%)
6.	There are no career prospects for Mathematics-related studies.	13 (9.2%)	22 (15.9%)	26 (18.8%)	77 (55.8%)

From the findings as expressed above, a lesser number of 15(10.9%) and 21(15.2%) of the students strongly agreed and agreed that all students have the capacity for

Mathematics. A greater number of 44(31.9%) and 58(42.0%) of the students disagreed and strongly disagreed respectively. Also, 28(20.3%) and 39(28.3%) of the students strongly agreed and agreed respectively that Mathematics is preferable to other subjects whereas 29(21.0%) and 42(30.4%) disagreed and strongly disagreed respectively. With regard to question of frequently solving Mathematical problems, a greater number of 70(50.7%) and 58(42.0%) strongly agreed and agreed respectively while a lesser number of 7(5.1%) and 3(2.2%) disagreed and strongly disagreed respectively.

In addition, a greater number of 67(48.6%) and 56 (40.6%) strongly agreed and agreed respectively that students should attend Mathematics classes regularly while a lesser number of 9(6.5%) and 6(4.4%) disagreed and strongly disagreed. Considering the point of studying Mathematics at higher levels of education, 25(18.1%) and 53(38.4%) strongly agreed and agreed respectively meanwhile 30(21.7%) and 30(21.7%) disagreed and strongly disagreed respectively. For students who do not find Mathematics in their future career profiles, a lesser number of 13(9.2%) and 22(15.9%) of the students strongly agreed and agreed respectively whereas a greater number of 26(18.8%) and 77(55.8%) disagreed and strongly disagreed respectively.

Table 5: Frequency of students' responses on the influence of interest on performance

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Frequency	828	104.00	145.00	249.00	214.0169	34.76857
Valid N (list wise)	828					

3.2 Testing Hypothesis

H_o: There is no significant relationship between students' interest in Mathematics and their academic performance in the subject.

H_a: There is a significant relationship between students' interest in Mathematics and their academic performance in the subject.

Table 6: Correlation between items on interest and scores

		Items	Scores
Items	Pearson Correlation	1	.258**
	Sig. (2-tailed)		.000
	N	2677	2677
Scores	Pearson Correlation	.258**	1
	Sig. (2-tailed)	.000	
	N	2677	2677

****. Correlation is significant at the 0.01 level (2-tailed).**

The degree of linear relationship is much stronger in this case. r = 0.258. A positive linear relationship is more visible. We therefore reject the null hypothesis H_o, in favour of H_a. The null hypothesis states that there is no significant relationship between students' interests in Mathematics and their academic performance in the subject whereas the alternative hypothesis which has been confirmed by the findings holds that

there is a significant relationship between students' interest in Mathematics and their academic performance in the subject.

4. Discussion of findings

Considering the correlation between the students' interests in Mathematics and their performance in the subject, the findings, which relate the interests of the students in Mathematics and their academic performance in the subject confirm Dewey's (1966) comparison of interest-oriented learning where the students' interest is linked to effort-based learning. Dewey distinguished between direct and indirect interests, where direct interest is an emotional state within an individual. That is, interest in this case is an individual's personal impulse originating within a subject towards some object or activity. Therefore, a subject like Mathematics cannot be made interesting by an external agent because the interest is not in the object, Mathematics, but it is in the student, the subject who expresses the desire towards the object Mathematics (Hansen, 2006; Ngalim, 2014). This is the perspective of interest Dewey recommends to educators (teachers) to exploit in order to develop the culture of Mathematics in students. It is a motivational factor, since it is a central component for the students to be motivated in learning (Dewey, 1966, Renninger 1992). Ngalim (2018) observed that interest is an important force for determining the quality of learning as well as educational and occupational choices. There is therefore, the need to appeal to the students' preferences, needs, desires and capacities in the teaching- learning transaction of Mathematics. In this case, the teachers exploit the full potentials of students by encouraging them to pursue Mathematics-related careers.

The findings from this study revealed that students' interests in Mathematics influences their performance in the subject. The findings had the following implications on the teaching and learning of Mathematics as an educational subject. These implications are for all the educational stakeholders. The school administrators, teachers and parents should exploit the learners' intrinsic interests to create a strong inclination and culture of Mathematics as a subject in secondary schools. Most often, the strategies employed are built on extrinsic interests, which are short-lived as far as the study of Mathematics is concerned (Turner & Meyer, 2009). Most teachers tend to offer a bribe of pleasure or pain to ensure the attention and interest of the students. Dewey frowns on this and describes this approach as the soup kitchen theory of education. *A contrario*, when the student's intrinsic interest is appealed to, it permits him/her to be attentive in Mathematics lessons thus following it confidently and autonomously (Ma, & Kishor, 1997). This ensures better scores and subsequently better performance in Mathematics like the case in other subjects.

5. Conclusion

This study set out to inquire whether there is a correlation between the interests of students in Mathematics and their academic performance in the subject. To attain this objective, the scope of this paper was limited to students in Babessi sub-division. However, the correlation between interest and performance of students in Mathematics could be different in other sub-divisions, divisions and regions of the country. This suggests that an extensive similar study be done in all secondary schools in the country, so as to have a comprehensive report on the influence of students' interests on their performance in Mathematics. Also, the study was only limited to students. However, the views of the teachers who play a very crucial role in the dissemination of the knowledge in Mathematics were left out. There is need to carry out a similar study involving the teachers in order to incorporate their views for a comprehensive report. Based on the findings obtained, I recommend that pedagogic practices in Mathematics should give equal chances, opportunities and privileges to all learners irrespective of aptitude, sex, age and language. The God-given thesis of Mathematical knowledge should be rejected in favour of a No- child- left- behind pedagogy in the subject. Also, students have to understand that it is not enough to say I am interested in Mathematics in order to have a good performance in the subject. Considering interest as the needs, experiences, aptitude, attitude, desires, capacities and aims of the students, multiple factors have to come to play to enhance good performances in Mathematics. For this precise reason, counselling units in secondary schools should re-direct students' prejudices in Mathematics. The students should be made to understand the inevitability of Mathematical skills in daily life. Whether one wants to be a journalist, a politician, a teacher or a clergy, Mathematical competence is imposing. Thus, curriculum designers and teachers should articulate the subject-integration where Mathematics is essential for all other careers.

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