

**Factors affecting students' academic performance in Social Studies subject - the case of selected Senior High Schools in Sangnarigu District and Tamale Metropolis of northern Ghana**

**Abstract**

Efforts to identify and address the factors that affect the academic performance of students is key to achieving the aim of education. The study therefore sought to identify factors that influence the academic performance of social studies students in selected Senior High Schools (SHSs) within the Tamale Metropolis and Sangnarigu Districts of Northern Region of Ghana. The study adopted the multiple case study approach involving selected schools and participants with varied backgrounds and experiences in Social Studies. Teacher-related factors that affect the academic performance of students include the teachers' teaching styles and methods as well as teachers' academic qualification. Parent-related factors include inadequate parental support such as parents' inability to provide textbooks and supplementary reading materials. Student-related factors include students' inactivity during lessons while school-related factors include inadequate teaching and learning materials in the schools. The study therefore recommends, among others, the need for parents and teachers to collaborate in ensuring that students have the right attitude towards teaching and learning of social studies.

**Keywords:** student-related factors, academic performance, teaching style, learning attitude.

**Introduction**

“The aim of Education is to equip individuals with the relevant knowledge, skills and attitudes for productive citizenship necessary for nation building” Arul & Thiyagarajan (2021). “Consequently, many countries, including Ghana, seek to improve their educational systems by introducing reforms and making projections based on the educational needs of the

country. Thus, education is considered as one of the most important social institutions that influence other social institutions” (Wardat et al., 2022). “It plays a vital role in the development of human capital and is linked with an individual’s well-being and opportunities for better living” (Arul & Thiyagarajan (2021) “According to them education ensures the acquisition of knowledge and skills that enable individuals to increase their productivity and improve their quality of life. As a result of the significant role of education in nation building, the quality of students’ performance remains a top priority for educators. Educators, researchers and other stakeholders of education have long been interested in discovering the factors that influence the academic performance of students”. According to Wardat et al. (2022), “the academic achievement in schools is the result of the interplay of several factors including teacher-related, student-related, parent-related and school-related factors. In their opinion, there are several school-related factors that influence academic performance include availability of instructional materials, quality of the physical facilities, class size, pupil-teacher ratios and teacher qualification. Poor academic performance of students can be attributed to lack of effective supervision and monitoring at school, lack of motivation for teachers and inadequate number of qualified teachers to fill empty classrooms”.

With reference to parent-related factors, Garbacz et al. (2017), stated that “the academic performance of students can also be affected by household factors including parents’ socio-economic status (education, occupation and income), household size, type of discipline at home, family structure, and the level of parental involvement and interest in children’s academic performance. Poverty, parents’ lack of formal education, parents’ negative attitude to formal education adversely influence the academic performance of students. On the other hand, children with high levels of parental education are likely to have access to economic and social resources (family structure, home environment, parent-child interaction) that can be drawn upon to help them succeed in school” (Lara & Saracosti (2019), “Factors related to the student’s own characteristics which affect their academic performance include time with books and homework, school attendance, students’ attitude towards schooling, students’ self-concept and motivation and the health and nutritional status of students” (Garbacz et al., 2017). “Understanding the factors affecting students’ math achievement is extremely important. The related literature indicates that previous studies primarily focused on the influences of many individual factors” (Semeraro et al., 2020). “The latest research has expanded the focus beyond the individual level such as student, family, school context and the complexity of the interaction between them. The studies report that there is general agreement about the impact of the student, family and school-related factors on achievement” (Ataç, 2019; Takashiro, 2017). “It is also claimed that the variables predicting achievement and strength of the relationship can differ according to both the countries at the macro level” (Holzberger et al., 2020) and the characteristics of the locations of the school within the country at the micro-level. Research in Africa has examined the effects of student characteristics on academic achievement and identified an association between academic self-efficacy and level of commitment to school.

“In Ghana, agencies responsible for education have consistently sought to identify the factors affecting the academic performance of students with the view to improving their academic performance. One area in which education can promote nation building in a country is the impact of the Social Studies curriculum on the individuals. Social Studies in the Ghanaian educational system is a subject that has its goal as citizenship education” (Ayaaba,

Eshun, & Bordoh, 2014). Citizenship education is the gradual preparation of the youth to fit into the society. Among the subjects that are taught in our schools, Social Studies is one subject whose aim is to inculcate good citizenship skills into the youth. It involves the transformation of youths so that they develop positive attitudes, values and skills that enable them to become reflective, competent and participatory citizens.

“Despite the introduction of students to citizenship education through social studies education, the upsurge of moral decadence among the youth of Ghana these days seem to attest to the fact that citizenship education is hindered by some limiting factors in the senior high schools. Although, a number of subjects such as Religious and Moral Education (RME), History and Sociology were introduced for the purpose of teaching students to become active citizens” (Ghana Education Service [GES] 2010), “it is the Social Studies education, with its integrative and incorporated nature (integrating History, Sociology and other social sciences disciplines), that has been acknowledged as a major vehicle in promoting effective citizenship among Ghanaian students” (GES, 2010). “There have been reports that Social Studies education in Africa including Ghana may be facing numerous challenges that affect the performance of students and the society as a whole” (Yalley, 2017). It is therefore imperative to identify factors that affect the academic performance of social studies students in schools. By identifying these factors, recommendations could be made to improve the academic performance of social studies students.

“In the Tamale Metropolis and Sangnarigu District of the Northern Region of Ghana, maximum attention has always been given to academic performance of students. In spite of this, there has not been much research done on the academic performance of Social Studies students at the SHSs. Thus, it appears very little attention is paid to students’ academic performance in Social Studies compared to other core subjects like Integrated Science and Mathematics” (Yalley, 2017). “Studies in other parts of the world reports that a sense of belonging gives students’ feeling of security, identity and community which, in turn, supports academic, psychological and social development” (OECD, 2018). It is underlined that lack of connectedness can adversely influence students’ perceptions of themselves, their satisfaction with life and their willingness to learn and put effort into their studies. Additionally, bullying at school also affects student success at schools. The present study therefore sought to identify the factors that influence the performance of students in Social Studies at SHSs in the Tamale Metropolis and Sangnarigu District of Northern Region of Ghana. Specifically, the study sought to address the following research questions:

1. What are teacher-related factors that affect the academic performance of Social Studies students at the SHSs in the Districts?
2. What are parent-related factors that affect the performance of Social Studies students at the SHSs in the Districts?
3. What are student-related factors that affect the academic performance of Social Studies at the SHSs in the Districts?
4. What are school-related factors that affect the academic performance of social studies students at the SHSs in the Districts?

## **Methods**

“This study adopted a case study approach. A case study research is a qualitative research approach to conducting research on a unit of study or bounded system (e.g., an individual teacher, a classroom, or a school can be a case). Case study research is an all-encompassing method covering design, data collection techniques, and specific approaches to data analysis. A case study is also the name for the product of case study research, which is different from other field-oriented research approaches such as narrative research and ethnographic research” (Gay, Mills and Airasian 2012) “The approach was chosen to fit the phenomenon being studied and to gain the information-rich and thick descriptions of data portrayed” by Patton (2002) and Rubin & Rubin (2005). “This approach helped to select schools and participants and is seen more compelling and extra vigorous with the ability for allowing direct replication” (Yin, 2003). Additionally, a case study was seen suitable for this study as it facilitates the understanding of complex social phenomenon such as factors affecting social studies students’ academic performance. It has the capability to investigate a situation inside its context and in addition, as this study is interpretive in nature, the case study would allow the researcher to see the situation through the eyes of his or her participants.

The study focused on two selected SHSs, one in each of the two Districts. The two SHSs were chosen because they had unique and interesting stories to gather from pertaining to the phenomenon under investigation. The population of the study comprises all Social Studies teachers from both schools. These were teachers who have a minimum of a Bachelor’s degree as is a basic requirement to teach at SHS in Ghana and are engaged in teaching Social Studies to students in SHSs. Social Studies final year (year 3) students also formed part of the population. The year 3 students were considered because, unlike the year 1 and 2 students, they had gained enough educational experience and were more likely to offer useful ideas and responses on the phenomenon under investigation.

“Sampling is the process of selecting a group of individuals, items, or events that represents the characteristics of the larger group from which the sample is drawn”(Gay, Mills and Airasian 2012). “A sufficient sample provides a representative section of the target population and hence permits a legitimate generalization of the data obtained. This study used purposive sampling to make certain that teachers and students hand-picked are familiar with the aim of citizenship education in order to achieve the purpose of the study”. Patton (1990) concurs that purposive sampling is a non-random method of sampling where the researcher selects “information-rich” cases for in-depth study. The teachers in the selected - SHS have varied educational levels and for this study, two teachers were handpicked from each of the two selected schools (SHS ‘A’ and SHS ‘B’) with the hope that they are conversant with the citizenship education and can hence advise on the phenomenon under investigation.

To select information-rich teachers from many, the researcher made a special visit prior to data collection and requested for personal data (from the school Heads) of all teachers in the selected schools. The data covered their educational background with areas of specialty, employment records, positions held and number of years in the service. After obtaining these data, teachers with qualifications and previous employment closer to social studies and education were specifically selected. The study used final year student volunteers as participants for the study for the individual interview through open invitation to all students since they all study Social Studies. SHS ‘A’ had 120 social studies students from which 6 were selected while SHS ‘B’ had 148 social studies students from which 7 were selected. That is, student volunteers were recruited openly. Thus, a total sample frame of 17 comprising 13 students and 4 Social studies teachers were selected for the study. Focus group discussions were conducted with the students, while one-on-one interviews were carried out for both the students and teacher participants.

## RESULTS AND DISCUSSION

Individual participants are represented by codes, and descriptions of data from their interviews have been internalized using the simple coding shown in Table 1 (This is done in order to protect the anonymity and confidentiality of participants).

Table 1: Codes representing participants

| Interviewee       | Code     |
|-------------------|----------|
| Teacher (SHS 'A') | SAT1&2   |
| Teacher (SHS 'B') | SBT1 & 2 |
| Student (SHS 'A') | SAS1 - 6 |
| Student (SHS 'B') | SBS1 - 7 |

## Participants' views on factors affecting academic performance of social studies student

### 1. Teacher-related factors that affect the academic performance of social studies students

The participants viewed the factors differently. When asked what teacher-related factors affect the academic performance of social studies students, one teacher (SAT1) said:

*Due to large class size, it is difficult for teachers to give feedback regularly to students on their academic assignments. It is also not easy to give individual attention in class due to large class size.*

One student (SAS3) stated that, *teachers do not motivate students to learn when they are not in class and apart from that teachers do not use teaching and learning materials in lessons.*

Another student also stated that, *I think the qualification of our social studies teachers also affects our academic work leading to poor academic achievement in social studies. Because, if the teachers are not having the requisite academic qualification, it means that it will be difficult for them to deliver the right content with confidence. This goes a long way to affect the academic performance of students (SAS5). In his opinion, the qualification of teachers can influence how effectively teachers teach. This will ultimately influence the academic performance of students. It is for this reason that the Ghana Education Service always seeks to ensure that teachers who are entrusted with teaching of students are of the utmost quality and of high competence.*

In the opinion of one teacher (SBT2), *the teacher-student ratio in SHSs influences the academic performance of social studies students. Generally, low teacher-student ratio makes it difficult to deliver satisfactorily and that affects the academic performance of our students.*

*There is therefore the need to engage more social studies teachers in the schools to address this issue. According to another student (SBS4), the teaching styles and methods of teachers influence academic performance of students. In addition to that teachers' ability to complete syllabus influences students' academic performance. In his view, the style and method of teaching can determine whether students understand what is being taught and ultimately influence the academic performance of students.*

*In the view of one student, the number of contact hours between teachers and students influences students' academic performance as the contact hours between teachers and students is connected to the ability of teachers to complete syllabus (SAS6).*

*According to a student (SAS3), lateness to school by teachers is a serious factor affecting the academic performance of students and must be checked. In the opinion of another student (SBS5), another important factor is teachers' absenteeism from classes. Some teachers don't honour their lessons and will not do anything to make up for the loss of these lessons. This is why we are not able to complete our syllabus leading to poor academic performance.*

*Another student (SBS7) pointed out inadequate homework assigned to students as a serious factor affecting the academic performance of students. In his opinion, if students are not assigned homework to do, there is no way they will study effectively at home or during preps hours. That is why our academic performance is seriously affected.*

*“Thus, from the responses of the study participants, the number of contact hours between teachers and students, teaching styles and methods, teachers' punctuality and regularity to work, teachers' ability to complete the syllabus and qualification of teachers are the teacher-related factors that influence academic performance of students. These findings imply that in the classroom, teaching styles and methods are important factors affecting the academic performance of social studies teachers. These factors can determine how much benefits students gain from teaching and learning interactions”. The findings of the current study support reports by (Garbacz et al., 2017) that “the teacher factors that were found to contribute to the low academic performance were incidences of lateness to school and absenteeism, inability to complete the syllabus, inadequate homework assigned to pupils and misuse of contact hours with students”.*

## **2. Parent-related factors that affect the academic performance of social studies students**

In the opinions of study participants, parents' educational level influences the academic performance of Social Studies students. According to one student, *parents with good educational background are more likely to play a supervisory role in ensuring that students do their homework and take their academic work serious than those without any educational background* (SAS1).

In the opinion of one teacher (SBT2), *parents' financial status also influences students' academic performance in social studies*. According to him, *parents with good financial standing can afford to buy study materials for their wards or even engage social studies teachers to take their wards through extra tuition to enable them cover the social studies syllables timely*. One student (SBS6) was also of a similar view when he stated that, *parental support (provision of learning materials) for students influences academic performance*. Similarly, one teacher (SAT2) mentioned that, *parents' interest in their children's academic work influences students' academic performance*.

According to another student (SAS5), *the family structure (single-parent or intact family) also plays a major role in the students' academic performance*

The findings of this study are consistent with those of OECD (2019) that “parents of the students with low academic success are more likely to have low educational levels, work in less prestigious jobs with low wages, migrate, speak a different language at home rather than educational language and have a rural origin. Thus, there is a positive relationship between parental involvement and academic achievement of students”. According to Kyriakides et al. (2019), “the low family income, on the one hand, prevents students from living in a more developed settlement area, possessing a good peer group and accessing a school that provides a good education. It limits the level of family meeting the cost of education. In addition to these, family characteristics such as family size, number of siblings, and birth order, the environment in which the family lives and parents' highest occupation level also appear to affect student achievement”.

### **3. Student-related factors that affect the academic performance of social studies students**

The study investigated student-related factors that affect students' academic performance in social studies by seeking the views of the study participants. Stating his views on this issue, one teacher (SAT1) mentioned that, *students' inability to submit their homework in good time affects their academic performance*. Another teacher (SBT2) stated that, *students' inability to actively participate in social studies lessons is a factor that adversely affects their academic performance. Active participation is necessary for students to follow the lesson and understand properly*. In the view of one student (SAS3), *if students are not active during lessons, they are not likely to understand the topic and this could affect their academic performance in the subject*. Another student (SBS3) was of the view that, *chatting among the students during lessons also affects the academic performance of the students. Instead of paying attention to the lesson, if students have the habit of chatting among themselves, they are not likely to follow through the lesson and grab the concepts necessary for good academic performance. This is a major factor that leads to poor academic performance among social studies students in my school*.

One teacher (SAT2) was of the view that, *students' ability to speak good English is a major factor that affects social studies students' ability to perform well academically*. In his view, *it is important for social studies students to learn and speak English very well in order to perform well in the social studies examination. Students' inability to express themselves well in the English language is a serious contributory factor to low academic performance of students in my school*. One student (SAS6) mentioned that, *students' attitude towards learning is another factor that affects students' academic performance. In most situations, the attitude of students towards teaching can determine academic performance even when all the school, teacher and parental factors are in place. If a student has a positive attitude toward learning the subject, they are likely to perform better than those with negative attitude towards the subject*.

According to one student (SBS6), *students' inner motivation also affects their academic performance. If there is inner motivation, the student is likely to perform well while students without any inner motivation are not likely to perform well academically*. Another student mentioned punctuality and regularity as some other factors that affect their performance. According to him, *punctuality and regularity in class attendance are positive*

*attitudes that must be possessed by students if they have to perform well academically*(SBS4).

Other factors mentioned by one student (SAS3) include intellectual ability and study habit. According to him, *students with good intellectual ability coupled with good study habit are likely to perform well academically. If students lack vocational goals and low self-confidence in social studies, they are also not likely to put up good academic performance in the subject.* Thus, from their responses, the attitude of students towards teaching affects academic performance even when all the school, teacher and parental factors are in place. These findings give support to those of Ker (2016) indicated that “self-confidence is the most influential aspect of students’ performance in Maths. In line with self-confidence, motivation is another crucial factor explaining students’ achievement” (Nartgün & Çakır, 2014)

The present finding on students’ inability to express themselves in English during lessons also confirms the finding of Harju-Luukkainen et al. (2020) that student’s poor communication during lessons was problematic as they could not express themselves in English Language in order to ask or answer questions during lessons. Pupils’ ability to express themselves in English language is a precursor for teaching and learning; so students should be encouraged to learn and speak English very well. According to (Tomul et al., 2021) “student characteristics that can influence academic performance included lateness to school and absenteeism. Lateness and absenteeism can make a student not get adequate contact hours with the teacher. As a result, the student is likely to have issues understanding some of the concepts taught by the teacher”.

The current study revealed that teachers and students have similar opinions about student-related factors that contribute to low academic performance, an observation which is in line with that of Owoeye & Olatunde (2011). When students are not performing academically well, teachers are aware of that. In the same way, when students are not doing well academically, they themselves are aware of that. Students under normal circumstances want assistance from teachers.

#### 4. School-related factors that affect the academic performance of social studies students

The responses from the study participants showed that, among others, the school-related factors include the classroom atmosphere, presence and adequacy of teaching and learning materials, supervision and monitoring and class size. According to one student (SAS6), *if the classroom atmosphere is not convenient, this affect teaching and learning process. In my school, there are no convenient facilities like fans, comfortable chairs and tables and so no meaningful teaching and learning materials for effective teaching and learning. This affect students' academic performance of students.*

According to another student (SBS6), *Supervision and monitoring of school work by teachers influence academic performance of students. Also, the availability of school facilities affects academic performance of students.* One teacher (SAT1) mentioned that, *Poor classroom environments characterized by poor ventilation, inadequate classroom furniture, poorly equipped science laboratories and lack of relevant books in the library are all factors that adversely affect students' academic performance.* Their opinions are consistent with reports by Lucy et al. (2022) who reported that inadequate teaching learning materials adversely affect the social studies students' academic performance in the Sangnari District in Northern Ghana. Inadequate classroom furniture coupled with overcrowded classroom results in poor academic performance. The findings of this study are consistent with those of Lucy et al. (2022) who revealed that poorly equipped science laboratory made it very difficult for students to learn and pass science related subjects in examinations.

The observations made by the study participants are in line with Owusuah & Awumbe (2014) whose study revealed that both students and teacher participants shared similar opinions on classroom conditions and how they contribute to low academic performance of students. Inadequate facilities characterized by poor ventilation in the classroom can be too stressful for any meaningful teaching and learning process Lucy et al. (2022). Students and teachers are motivated to study well when their schools have stress-free classrooms, adequate classroom furniture, well-equipped laboratories and libraries. These facilities promote effective teaching and learning leading to good academic performance.

#### Conclusion

Based on the findings from this study, the number of contact hours between teachers and students, teachers' teaching styles and methods, teachers' qualification and ability to complete syllabus are some teacher-related factors that influence academic performance of social studies students. Parent-related factors that affect social studies students' academic performance include poor home conditions or inadequate parental support such as parents' inability to provide textbooks and supplementary readers. Student-related factors such as poor intellectual ability, poor study habit, lack of achievement motivation, lack of vocational goals and low self-concept contribute to poor academic performance of students. Other student-related factors include students' inactivity during lessons and students' poor communication skills during lessons. School-related factors which adversely affect academic performance include the poor classroom atmosphere, inadequate teaching and learning materials, lack of supervision and monitoring and large class size. The results point out that the self-confidence among the student-related characteristics made a great deal of contribution to the academic performance of the students. This finding is consistent with those of Ker, (2016) who reported that the student's self-efficacy and self-confidence are significant predictors of math achievement. The current findings on absenteeism were similarly to Kers' (2016) report in which absenteeism from school was another important factor for the math achievement. The implications of the study are that, the findings of the study will make significant contributions to the literature. The results suggest that it would be beneficial to ensure the classroom atmosphere is convenient to promote effective teaching and learning process. It is also necessary to ensure adequate and convenient facilities like fans, comfortable chairs and tables as well as teaching and learning materials for effective teaching and learning. In addition, some precautions can be taken to reduce absenteeism in the schools.

### **Recommendation**

Per the findings of the study school the following recommendations are made:

1. Counsellors can be engaged to organize counselling talks to address issues such as students' inactivity in class, late submission of academic assignment, absenteeism and inattentiveness in class.
2. Education policy makers should ensure effective supervision and monitoring in the SHSs to help improve the atmosphere in the school environment and also ensure that there is quality teacher-student contact time.
3. Educational authorities should ensure that there are enough classrooms to address the issues of large class sizes for improved academic work of students.

4. Teachers should also make the necessary efforts to ensure that syllabi are completed and students encouraged to have more contact hours with teachers.
5. Parents and teachers should collaborate in ensuring that students have the right attitude towards teaching and learning and are motivated enough to learn.

## References

- Arul L. A. S. & Thiyagarajan, P. (Ed.). (2021). *Nation building through skill development*. Tamil Nadu Open University
- Ataç, E. (2019). Modeling educational inequalities: Class, academic achievement, and regional differences in Turkey. *Education and Urban Society*, 51(5), 659–692.
- Ayaaba, D.A., Eshun, I. and Bordoh, A. (2014) Achieving the Citizenship Education Goal of the Social Studies Curriculum in Ghanaian Senior High Schools: Challenges and the Way forward. *Open Science Journal of Education*, 2, 61-65.
- Garbacz, S.A.; Herman, K.C.; Thompson, A.M.; Reinke, W.M. (2017). Family engagement in education and intervention: Implementation and evaluation to maximize family, school, and student outcomes. *J. Sch. Psychol.*, 62, 1–10
- Gay, L. R. Mills, Geoffrey E. Airasian, Peter W. (2012). *Educational research: Competencies for analysis and applications*, 10th ed. Education Research. 13: 978-0-13-261317-0.
- Ghana Education Service [GES] (2010). *The social studies syllabus for JSS*. Accra: Curriculum Research and Development Division.
- Harju-Luukkainen, H., Vettenranta, J., Wang, J., et al. (2020). Family related variables effect on later educational outcome: a further geospatial analysis on TIMSS 2015 Finland. *Large-Scale Assessments in Education*, 8, 3. [https:// doi. org/ 10. 1186/ s40536- 020- 00081-2](https://doi.org/10.1186/s40536-020-00081-2)
- Holzberger, D., Reinhold, S., Lüdtke, O., & Seidel, T. (2020). A meta-analysis on the relationship between school characteristics and student outcomes in science and maths-evidence from large-scale studies. *Studies in Science Education*, 56(1), 1–34.
- Ker, H. W. (2016). The effects of motivational constructs and engagements on mathematics achievements: A comparative study using TIMSS 2011 data of Chinese Taipei, Singapore, and the USA. *Asia Pacific Journal of Education*, 37(2), 135–149.
- Kyriakides, L., Stylianou, A., & Menon, M. E. (2019). The link between educational expenditures and student learning outcomes: Evidence from Cyprus. *International Journal of Educational Development*, 7, 102081.
- Lara, L.; Saracosti, M. (2019). Effect of parental involvement on children’s academic achievement in Chile. *Front. Psychol.*, 10, 1464. [CrossRef]

Lucy S, Emmideme G. N, Sylvester A. Social studies student-teachers' preparation for effective use of teaching and learning materials: The case of Northern Colleges of Education in Ghana. *Open J Soc Sci.* 2022;10(6):379-95

Nartgün, Ş, & Çakır, M. (2014). Causes of conflict in the classroom at technical and vocational high schools (Tuzla Case). *Journal of Research in Education and Teaching*,3(3), 379–391.

OECD. (2019). *PISA 2018 results (Volume II): Where all students can succeed*. PISA, OECD Publishing. <https://doi.org/10.1787/b5fd1b8f-en>

Owoeye JS, Olatunde YP. (2011). School facilities and academic achievement of secondary school agricultural science in Ekiti State, Nigeria. *Asian social science*.7(7):64-74.

Owusuaah E. & Awumbe T. T. (2014). Factors influencing low academic performance of junior high schools in the Asunafo North District in the Brong Ahafo Region. *Journal of Social Sciences*. 2:136–143.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Patton, M.Q. (1990). *Qualitative evaluation and research methods* (2nd ed). London: SAGE.

Rubin, H. J., and. Rubin, I. S. (2005): *Qualitative Interviewing – The Art of Hearing Data*. 2. Edition, Sage Publications, Thousand Oaks, London, New York.

Semeraro, C., Giofrè, D., Coppola, G., Lucangeli, D., & Cassibba, R. (2020). The role of cognitive and non-cognitive factors in mathematics achievement: The importance of the quality of the student-teacher relationship in middle school. *PLoS ONE*, *15*(4), e0231381.

Takashiro, N. (2017). A multilevel analysis of Japanese middle school student and school socioeconomic status influence on mathematics achievement. *Educational Assessment, Evaluation and Accountability*, *29*(3), 247–267.

Tomul E., Önder E. and Taslidere E. (2021). The relative effect of student, family and school-related factors on math achievement by location of the school Large-scale Assess Educ 9:22

Wardat, Y.; Belbase, S.; Tairab, H.; Takriti, R.A.; Efstratopoulou, M.; Dodeen, H. The Influence of School Factors on Students' Mathematics Achievements in Trends in International Mathematics and Science Study (TIMSS) in Abu Dhabi Emirate Schools. *Educ. Sci.* **2022**, *12*, 424. <https://doi.org/10.3390/educsci12070424>

Yalley, C. E. (2017). Renaissance of social studies instruction in the senior high schools in Ghana: Technological perspective. *Journal of Education and Practice*, *8*(13), 101-107.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.