

Predictors of Learning Disabilities Among Visual Arts Students at The Senior High School in Ghana

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doi: <https://doi.org/10.37745/ijeld.2013/vol11n84160>

Published August 27 2023

Citation: Kankam T., Opoku-Asare N.A., and Ampofo M.G. (2023) Predictors of Learning Disabilities Among Visual Arts Students at The Senior High School in Ghana, *International Journal of Education, Learning and Development*, Vol. 11, No.8, pp.41-60

ABSTRACT: *Learning disabilities do not occur in isolation but as a result of certain environmental factors such as school, class, and home with various underlining conditions which immensely present barriers to students learning. The study, therefore, employed a triangulation mixed research approach with a questionnaire, observation, and focus group discussion aimed at identifying learning disabilities and their various causal factors at the SHS, typically among students who seems to be a repository of BECE under-performance at the visual arts department. Data was sourced from 119 visual arts students (85 males; 34 females), 59 “BECE under-performance” (33 males; 26 females), 5 visual arts practical lessons, and 8 focus group members (4 males; 4 females). The findings revealed that students with underperforming BECE grades were admitted to pursue visual arts programme at the SHS. This was due to varied environmental deprivations in school, classroom, and at home that presented an uncondusive learning environment for these students. It was therefore recommended that strategic educational interventions should be adopted to help avert the situation.*

KEYWORDS : Learning disabilities, school factors, classroom factors, home factors, visual arts

INTRODUCTION

Learning disability is a persistent educational issue and presents among students who struggle to cope with academic work. This may occur with the learning of some topics, skills, fluent reading, or memorizing multiplication tables (Centers for Disease Control and Prevention, CDC, 2021; Aro and Ahonen, 2011). The scenario where learning is laborious for students and makes them think they cannot learn persists in many classrooms (Aro and Ahonen, 2011). When a student makes every effort to accomplish a specific task for some time and is unable to do so despite their overall intelligence or motivation is a sign of a learning disorder (CDC, 2021). Learning disability is a relatively new concept in Africa despite the phenomenon of students presenting with learning

difficulties for which they are labeled as “slow learners” or “below average intelligence” students (Kranzler, Yaraghchi, Matthews and Otero-Valles, 2019; Aro and Ahonen, 2011).

The definition of learning disability is rooted firmly in the Individuals with Disability Act (IDEA) 2004 which explains statutory identification of learning disability as a “severe discrepancy between the disorder of psychological processes” (IQ) and academic achievement” (Wong and Butler, 2012, p. 12). This makes the use of examination as a determination criterion for learning disability based on academic discrepancy and inadequate rate of progress (IDEA 2004). On the contrary, Zwane and Malale (2018) opine that the determination of learning disability should have a direct connection to a student’s achievement domain rather than the exclusive use of examination. In this regard, Kranzler et al., 2019 suggest response-to-intervention (RTI) methods as an ideal guide for the identification of students with learning disabilities. Hence, a student’s eligibility for a learning disability becomes known after (a) his/her academic growth rate is measured against the slope of curriculum-based measures (CBM) score over time; (b) his/her academic achievement compared to student standardized achievement test or CMB; (c) a combination of a CBM slop score over time and the final CBM benchmark score (fluency) against a benchmark at the end of instruction.

As Asihene (2009) indicates, the “under-performance” of junior high school (JHS) students in the Basic Education Certificate Examination (BECE) is what ends many of them in the Visual Arts programme when they get admitted into senior high school (SHS) where they are also perceived and often labeled as “academically less intelligent” and “academically less able” on account of “poor” entry grades. The reality is the fact that Senior High Schools (SHSs) in Ghana are categorized into three “Grades A, B, C” or “First, second and third class”, which also places high stakes on the admission of JHS graduates with respect to their performance in the BECE (Asihene, 2009; Opoku-Asare and Siaw, 2016; Baidoo-Anu, Gyamerah and Chanimbe, 2022). The current process of using technology via the Computerized School Selection and Placement System (CSSPS, Azaglo, Oppong and Antwi-Agyei, 2021; Opoku-Asare and Siaw, 2015) to place BECE holders in the respective senior high school programmes gives preference to the students grade as well (GES, 2021 Second Cycle Schools Register; Opoku-Asare, Tachie-Menson and Essel, 2015). The premise that students with the least BECE grades, who fit into the category of “underperformed students” (Bin Ponijan et al, 2019) are the ones who end up in the Visual Arts programme of study is evident in some local studies such as Azaglo et al (2021), Opoku-Asare and Siaw (2015; 2016), Opoku-Asare et al (2015) and Adinyira (2012). The concern of this study is related to the issue of suggestions made by “agents from the home setting” and “actors from the school environment” that Visual Arts education is the ideal programme of study for “underperforming students” (Addadey, Quansah, Nugba and Ankoma-Sey, 2022) negligible of any environmental factors that might have contributed to the etiology.

Factors Contributing to Learning Disabilities

Learning disabilities do not occur in isolation but as a result of certain environmental factors such as school, class and home with various underlining conditions. These environmental deprivations in school, classroom and home are implicated as they immensely present barriers to individual learning and contribute to learning disabilities (Ministry of Education 2016;2014).

The School as Contributing Factor to Learning Disabilities

The school ensures decision-making processes and implementations (Aro and Ahonen, 2011; Sekyere, 2016) in line with the curriculum that is geared towards helping students lay a solid knowledge foundation, nurturing generic skills, and instilling in them positive values and attitudes (Education Bureau of Hong Kong, 2020). This makes it imperative for teachers to proficiently plan and implement programmes that target the holistic educational development of the student through sound decision-making, remedial strategies, and individual differences among students.

Undoubtedly, Aro and Ahonen (2011) indicated that many African countries subscribe to a rigid curriculum that tends to regulate the use of syllabi, teaching plans, scheme of work, teacher's guide, and student textbooks across all levels to achieve uniform delivery of school curriculum activities, and lack of equity and accessibility to quality education. The consequences have been poor academic performance and annual declines in students' learning outcomes. Studies by Nugba, Quansah, Amkomah, Tsey and Ankoma-Sey (2021) are consistent with the poor academic performance of BECE students between the period of 2014 and 2018 as a result of inequitable access to quality education among basic schools in Ghana. This makes the school an essential factor in the subject matter of learning disabilities.

The Classroom as Contributing Factor to Learning Disabilities

The classroom is supposed to be a place, emotional setting, or system for academic engagement, personality development, and emotional experiences (Martin, 2002; Trezise, 2020). It provides psychological comfort, academic knowledge and experience, professional and personal growth for students to optimally develop their personalities in a modeled way (Iurea, 2015; Nazli and Vesa, 2021). As such the integration of the social function of classrooms is a response to the needs of belonging, acknowledgment, affirmation, and status (Iurea, 2015) which have a behavioural impact on the learner's educational programme (Martin, 2002; Nazli and Vesa, 2021).

But lack of adequate teaching and learning resources most especially in rural schools, lack of teachers and large class sizes where an average of 50-60 students with Kenya being the worse scenario of 150 students in a class has been observed in some African countries (Aro and Ahonen, 2011). Pupil-teacher ratios in most African countries including Angola (50 pupil-teacher), Guine-Bissau (52 pupil-teacher), Ethiopia and Mozambique (55 pupil-teacher), Chad (57 pupil-teacher), Malawi (59 pupil-teacher), and 60 pupil-teacher in Rwanda has not been pretty encouraging (The World Bank, 2020) with Ghana pegged at 27 (Trading Economics, 2022).

Again, poor teaching practices, primary language interference (use of foreign language), and lack of parental support in learning to read and write have also been identified as factors that contribute to the learning disabilities of students in the classroom. Studies by Nugba, et al (2021) pointed out parental non-involvement as contributing factor affecting students' performance and their academic work.

Furthermore, inadequate infrastructure, insufficient instructional material, uncondusive teaching and learning environment and teacher-student variables, the use of foreign language (English language) as a medium for classroom instruction in schools, wholesale promotion, illiteracy rate of parents, poor teaching and teacher training programmes have negative implications on students' learning outcomes hence contributing to learning disabilities (Aro and Ahonen, 2011; Nugba, Quansah, Amkomah, Tsey and Ankoma-Sey, 2021).

The Home as Contributing Factor to Learning Disabilities

Students are cared for and nurtured at home. Their school events, homework, and expectations are therefore a requisite responsibility of their parents as well (Aro and Ahonen, 2011).

Nevertheless, educational background and socio-economic status in most African countries have adversely influenced parents' capacity to guide their wards toward attaining successful educational heights. Coincidentally, low socio-economic status and the illiteracy rate of parents have impeded students' educational progress. This has widened the gap between these underprivileged students as academically oriented, financially and materially resourced parents who are better positioned to motivate their wards to aspire to higher heights in education.

In Ghana, research by Saani and Amonoo (2021) revealed the enormous efforts of parents in attaining better secondary education for their wards. Likewise, Addadey, Quansah, Nugba and Ankoma-Sey (2022) revealed parents guiding role as agents from the home setting in supervising their wards' choices for secondary education. Ankoma-Sey, Quansah and Nsoh (2019) also buttressed the point of parental desire in enrolling students in the study of vocational education. To Ajayi, Friedman and Lucas (2020) making sound educational choices for students has been mild with disadvantaged educational backgrounds of parents.

Considering the aforementioned research done in Ghana, Aro and Ahonen (2011) concluded that the motivation, enthusiasm, encouragement, faith, and hope of parents influence the quest to seek a purposeful academic future for their wards. A reversal of this quest of parents derails academic progress and contributes to learning disabilities.

METHOD

The study employed a triangulation mixed research approach with a questionnaire, observation, and focus group discussion aimed at identifying learning disabilities and their various causal factors at the SHS, typically among students who seems to be a repository of BECE under-performance at the visual arts department. Data was sourced through simple random, convenience and purposive sampling (Singh and Masuku, 2014; Taherdoost, 2016; Robinson, 2014). The study took place at one public senior school which is a co-educational category B located in the Ashanti Region, Ghana. It is located about 28.5km from Kumasi. The school was established in November 1972. Programmes offered in the school are General Agriculture, General Science, General Arts, Business, Home Economics, and Visual Arts. There are 190 teaching staff, 97 non-teaching staff, and 3,952 students. The study population comprised 119 students, 34 (28.6%) females, and 85 (71.4%) males. Eighty-three (69.7%) of the 119 students were in SHS 2 and 36 (30.3%) were in SHS 3. The students were aged between 14 and 23 years. SHS 1 students were on vacation at the time of data collection and were excluded from the study. Consent forms for guardians and students were signed before the engagement of students in the study. There was the assurance of anonymity and confidentiality of the responses from the questionnaire, observation, and focus group discussion footage meant purposely for this study. Data from the focus group discussion was coded for participants 1, 2, 3, 4, 5, 6, 7, and 8 and transcribed into thematic areas of the study for easy analysis.

DISCUSSION

This section provides information on the BECE grades of the students who participated in the study. It also outlines the factors that influenced their BECE performance and admission to pursue visual arts in the school. The data emerged from the responses the students gave to the questionnaires that were administered to them and confirmed in the admission documents they provided.

The students' BECE Grades

The questionnaire responses revealed that 60 (representing 50.4%) of the 119 students obtained BECE grades ranging from aggregate 16 to 25 and 45 obtained aggregate 26 to 35. The remaining 14 students obtained aggregate 36 to 45. This shows that the study school did not admit any high-performing students with aggregate 6-15 and rather received more low-performing students. The details of the data are indicated in Table 1.

Table 1 Entry BECE Grades

| Class | Entry BECE Grades | | | | | |
|-------|-------------------|-------|---------|-------|---------|-------|
| | 16 - 25 | % | 26 - 35 | % | 36 - 45 | % |
| SHS 2 | 38 | 31.9% | 33 | 27.7% | 12 | 10.1% |
| SHS 3 | 22 | 18.5% | 12 | 10.1% | 2 | 1.7% |
| Total | 60 | 50.4% | 45 | 37.8% | 14 | 11.8% |

Source: Fieldwork, 2022

The figures in Table 1 on the 119 students' entry grades show that 60 (representing 50.4%) of them obtained average (16-25) BECE grades and met the grading criteria accepted by this Category B school. The remaining half of the students had underperformed in BECE with their aggregates 26-45 which are grades that are below the acceptable entry requirement for category B schools (Aidoo, 2018; Azaglo, Oppong & Antwi-Agyei, 2021). This confirms the findings of some local studies (Opoku-Asare & Siaw, 2016; 2015; Opoku-Asare et al., 2015; Adinyira, 2012; Asihene, 2009) that have pointed out the fact that underperformed students are mostly admitted to the visual arts programme in Ghana. This finding also corroborates Bin Ponijan et al's (2019) research in Malaysia that indicates the admission of students with low grades in visual arts education.

Selection to Pursue Visual Arts Programme

This item sought to ascertain the factors that influenced the participating students to enroll in the visual arts programme. The questionnaire responses revealed that 116 (representing 97.4%) of the 119 students were assigned by the Computerized School Selection and Placement System (CSSPS) to pursue visual arts programme. The remaining three (representing 2.6%) participants were the only ones who chose to study visual arts at SHS. These students' choice of programme was found to have been influenced by home factors such as motivation by parents, siblings and relatives; and school factors such as parents, siblings and family members. The detailed responses given by the students on how they got into the visual arts programme are shown in Table 2.

Table 2: Influential Factors for Students' Choice of Visual Arts Programme

| Q1 What influenced your choice of visual arts? | BECE Grade | Class | | | |
|--|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Home factors | 16 – 25 | 0 | 0% | 0 | 0% |
| | 26 – 35 | 0 | 0% | 1 | 0.9% |
| | 36 – 45 | 0 | 0% | 0 | 0% |
| School factors | 16 – 25 | 0 | 0% | 0 | 0% |
| | 26 – 35 | 0 | 0% | 1 | 0.9% |
| | 36 – 45 | 0 | 0% | 0 | 0% |
| Home and School factors | 16 – 25 | 0 | 0% | 1 | 0.9% |
| | 26 – 35 | 0 | 0% | 0 | 0% |
| | 36 – 45 | 0 | 0% | 0 | 0% |
| Assigned by CSSPS | 16 – 25 | 38 | 31.9% | 21 | 17.6% |
| | 26 – 35 | 33 | 27.7% | 10 | 8.4% |
| | 36 – 45 | 12 | 10.1% | 2 | 1.7% |
| Total | | 83 | 69.7% | 36 | 30.3% |

Source: Fieldwork, 2022

The chance to pursue visual arts education at the secondary level lies in a student's BECE performance, choice of programme, and CSSPS placement (Ofori, Opokua and Howard, 2018). As indicated in Table 2, the majority (83) of the 119 students were placed in Visual Arts by the CSSPS with some students having BECE grades of 40 and above. The factors that were reported as what influenced the students to go into the programme were "agents from the home setting" and "factors from the school environment". This finding aligns with the view that some local studies (Aidoo, 2018; Azaglo, Oppong and Antwi-Agyei, 2021) that, amidst the CSSPS making programme choices for students, even those who had BECE aggregate 40 and above usually find themselves in the visual arts programme partly because of the influence exerted by some heads of schools, teachers, and elite parents (Blantari, 2020). The findings also affirm the assertion of Addadey et al (2022) that factors that influence students' programme choices are "agents from the home setting" and "actors from the school environment". This situation has also been found in Malaysia where Bin Ponijan et al (2019) observed that the educational system forces the choice of visual arts programme for underperforming students in upper secondary school.

Factors that influenced the students' BECE Grades

This section of the thesis reflects the responses that were recorded on the factors that caused the sort of BECE grades that were obtained by the students. In relation to the literature reviewed for the study, varied factors within the environment were identified through the use of questionnaires, class observation, and focus group discussions. These factors were grouped under school factors, classroom factors, and home factors and explained as follows.

School Factors

It is the school that makes decisions on the implementation of the curriculum to help students lay a solid knowledge foundation while nurturing generic skills and instilling in them positive values and attitudes (Education Bureau of Hong Kong, 2020). Since the school is an essential factor in the subject matter of learning disabilities, questionnaires and focus group discussions were used to elicit responses on some school factors that affected students' BECE grades.

This questionnaire item on school factors such as school curriculum, teachers, monitoring of learning progress, and accessibility to quality education recorded 61 (representing 51.3%) 'Yes' and 58 (representing 48.7%) 'No' responses from the 119 students. The school factors mentioned during the focus group discussion were not different from the issues identified in the questionnaire items. The distribution of the responses is detailed in Table 3.

Table 3: School Factors

| Q1 Rigid school curriculum | BECE Grade | Class | | | |
|----------------------------|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 - 25 | 19 | 16.0% | 13 | 10.9% |
| | 26 - 35 | 20 | 16.8% | 8 | 6.7% |
| | 36 - 45 | 10 | 8.4% | 1 | 0.9% |
| No | 16 - 25 | 19 | 16.0% | 9 | 7.6% |
| | 26 - 35 | 13 | 10.9% | 4 | 3.4% |
| | 36 - 45 | 2 | 1.7% | 1 | 0.9% |

| Q2 Poor professional competence of teachers | BECE Grade | Class | | | |
|---|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 - 25 | 26 | 21.8% | 18 | 15.1% |
| | 26 - 35 | 24 | 20.2% | 5 | 4.2% |
| | 36 - 45 | 10 | 8.4% | 2 | 1.7% |
| No | 16 - 25 | 12 | 10.1% | 4 | 3.4% |

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|---------|---|------|---|------|
| 26 - 35 | 9 | 7.6% | 7 | 5.9% |
| 36 - 45 | 2 | 1.7% | 0 | 0% |

| Q3 No monitoring of students' learning progress | BECE Grade | Class | | | |
|---|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 - 25 | 15 | 12.6% | 18 | 15.1% |
| | 26 - 35 | 15 | 12.6% | 10 | 8.4% |
| | 36 - 45 | 5 | 4.2% | 2 | 1.7% |
| No | 16 - 25 | 23 | 19.3% | 4 | 3.4% |
| | 26 - 35 | 18 | 15.1% | 2 | 1.7% |
| | 36 - 45 | 7 | 5.9% | 0 | 0% |

| Q4 Inequity and accessibility to quality education | BECE Grade | Class | | | |
|--|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 - 25 | 19 | 16.0% | 13 | 10.9% |
| | 26 - 35 | 14 | 11.8% | 5 | 4.2% |
| | 36 - 45 | 8 | 6.7% | 2 | 1.7% |
| No | 16 - 25 | 19 | 16.0% | 9 | 7.6% |
| | 26 - 35 | 19 | 16.0% | 7 | 5.9% |
| | 36 - 45 | 4 | 3.4% | 0 | 0% |

| Q5 Inadequate infrastructure | BECE Grade | Class | | | |
|------------------------------|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 - 25 | 27 | 22.7% | 15 | 12.6% |
| | 26 - 35 | 25 | 21.0% | 4 | 3.4% |
| | 36 - 45 | 10 | 8.4% | 0 | 0% |
| No | 16 - 25 | 11 | 9.2% | 7 | 5.9% |
| | 26 - 35 | 8 | 6.7% | 8 | 6.7% |
| | 36 - 45 | 2 | 1.7% | 2 | 1.7% |

| Q6 Wholesale Promotion | BECE Grade | Class | | | |
|------------------------|------------|-------|-------|-------|-------|
| | | SHS 2 | | SHS 3 | |
| Yes | 16 - 25 | 11 | 9.2% | 13 | 10.9% |
| | 26 - 35 | 10 | 8.4% | 5 | 4.2% |
| | 36 - 45 | 3 | 2.6% | 1 | 0.9% |
| No | 16 - 25 | 27 | 22.7% | 9 | 7.6% |
| | 26 - 35 | 23 | 19.3% | 7 | 5.9% |
| | 36 - 45 | 9 | 7.6% | 1 | 0.9% |

| School Factors (Average Score) | BECE Grade | Class | | | |
|--------------------------------|------------|-------|-------|-------|-------|
| | | SHS 2 | | SHS 3 | |
| Yes | 16 - 25 | 15 | 12.6% | 14 | 11.8% |
| | 26 - 35 | 17 | 14.3% | 6 | 5.0% |
| | 36 - 45 | 8 | 6.7% | 1 | 0.9% |
| No | 16 - 25 | 23 | 19.3% | 8 | 6.7% |
| | 26 - 35 | 16 | 13.4% | 6 | 5.0% |
| | 36 - 45 | 4 | 3.4% | 1 | 0.9% |
| Total | | 83 | 69.7% | 36 | 30.3% |

Source: Fieldwork, 2022

As shown in Table 3, 40 of the SHS2 and 21 SHS3 students reported that all the listed school environment factors influenced their BECE grades. These factors were reechoed by the students during the focus group discussions. The identified school factors had a ripple effect on some of the student's ability to cope with academic work and also couldn't perform well in the BECE. This reflects the findings of the study conducted by Nugba et al. (2021) who attributed poor BECE performance of students between 2014 and 2018 to school factors. On the contrary, the average scores also show that the remaining 58 students were not affected by the identified factors. In this 'No' category of students, 43 were in SHS2 and 15 were in SHS3. In effect, the number of SHS 2 students who were not affected by school factors exceeded those who gave 'Yes' responses to the question.

Classroom Factors

The classroom is expected to respond to the needs of belonging, acknowledgment, affirmation, and status (Iurea, 2015), and provide behavioural impact on the learner's educational programme

(Martin, 2002; Nazli and Vesa, 2021). This questionnaire item required the students to point out classroom factors that affected their BECE grades. The students' responses indicated that classroom factors affected 101 (representing 84.9%) of them in the BECE. The focus group discussion further revealed the "lateness of teachers to class" as a classroom that affected students' BECE grades. The details of the responses are shown in Table 4.

Table 4: Classroom Factors

| Q1 Inadequate teaching and learning resources | BECE Grade | Class | | | |
|---|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 26 | 21.8% | 19 | 16.0% |
| | 26 – 35 | 25 | 21.0% | 9 | 7.6% |
| | 36 – 45 | 9 | 7.6% | 2 | 1.7% |
| No | 16 – 25 | 12 | 10.1% | 3 | 2.6% |
| | 26 – 35 | 8 | 6.7% | 3 | 2.6% |
| | 36 – 45 | 3 | 2.6% | 0 | 0% |

| Q2 Lack of Teachers | BECE Grade | Class | | | |
|---------------------|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 13 | 10.9% | 13 | 10.9% |
| | 26 – 35 | 13 | 10.9% | 6 | 5.0% |
| | 36 – 45 | 3 | 2.6% | 0 | 0% |
| No | 16 – 25 | 25 | 21.0% | 9 | 7.6% |
| | 26 – 35 | 20 | 16.8% | 6 | 5.0% |
| | 36 – 45 | 9 | 7.6% | 2 | 1.7% |

| Q3 Large class size | BECE Grade | Class | | | |
|---------------------|------------|-------|-------|-------|------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 23 | 19.3% | 11 | 9.2% |
| | 26 – 35 | 23 | 19.3% | 6 | 5.0% |
| | 36 – 45 | 8 | 6.7% | 1 | 0.9% |
| No | 16 – 25 | 15 | 12.6% | 11 | 9.2% |
| | 26 – 35 | 10 | 8.4% | 6 | 5.0% |
| | 36 – 45 | 4 | 3.4% | 1 | 0.9% |

| Q4 Poor teaching methods | BECE Grade | Class | | | |
|--------------------------|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 27 | 22.7% | 20 | 16.8% |
| | 26 – 35 | 23 | 19.3% | 9 | 7.6% |
| | 36 – 45 | 10 | 8.4% | 2 | 1.7% |
| No | 16 – 25 | 11 | 9.2% | 2 | 1.7% |
| | 26 – 35 | 10 | 8.4% | 3 | 2.6% |
| | 36 – 45 | 2 | 1.7% | 0 | 0% |

| Q5 Poor proficiency in the English language | BECE Grade | Class | | | |
|---|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 29 | 24.4% | 15 | 12.6% |
| | 26 – 35 | 27 | 22.7% | 12 | 10.1% |
| | 36 – 45 | 11 | 9.2% | 2 | 1.7% |
| No | 16 – 25 | 9 | 7.6% | 7 | 5.9% |
| | 26 – 35 | 6 | 5.0% | 0 | 0% |
| | 36 – 45 | 1 | 0.9% | 0 | 0% |

| Q6 Unconducive classroom environment for teaching and learning | BECE Grade | Class | | | |
|--|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 27 | 22.7% | 15 | 12.6% |
| | 26 – 35 | 26 | 21.8% | 8 | 6.7% |
| | 36 – 45 | 5 | 4.2% | 1 | 0.9% |
| No | 16 – 25 | 11 | 9.2% | 7 | 5.9% |
| | 26 – 35 | 7 | 5.9% | 4 | 3.4% |
| | 36 – 45 | 7 | 5.9% | 1 | 0.9% |

| Q7 Poor teacher-student relations and interactions | BECE Grade | Class | | | |
|--|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 33 | 27.7% | 20 | 16.8% |
| | 26 – 35 | 28 | 23.5% | 9 | 7.6% |
| | 36 – 45 | 12 | 10.1% | 2 | 1.7% |
| No | 16 – 25 | 5 | 4.2% | 2 | 1.7% |
| | 26 – 35 | 5 | 4.2% | 3 | 2.6% |
| | 36 – 45 | 0 | 0% | 0 | 0% |

| Classroom Factors (Average Score) | BECE Grade | Class | | | |
|-----------------------------------|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 31 | 26.1% | 19 | 16.0% |
| | 26 – 35 | 28 | 23.7% | 11 | 9.2% |
| | 36 – 45 | 10 | 8.4% | 2 | 1.7% |
| No | 16 – 25 | 7 | 5.9% | 3 | 2.6% |
| | 26 – 35 | 5 | 4.2% | 1 | 0.9% |
| | 36 – 45 | 2 | 1.7% | 0 | 0% |
| Total | 83 | 69.7% | 36 | 30.3% | |

Source: Fieldwork, 2022

Lack of adequate teaching and learning resources, lack of teachers, large class size, poor teaching methods, and poor proficiency in the English language among others were the classroom factors that impacted negatively on the majority (101 out of 119) of the students' BECE grades. Revelation from the focus group discussion also indicated that "lateness of teachers to class" played a major role in the sort of grades obtained by these students. The findings affirmed the study of the World Bank (2020) and Trading Economics (2022) which projected classroom factors as hindrances to academic performance in Ghana and some other African countries.

The Home Factors

School events, homework, and educational expectations of children are requisite responsibilities of their parents. However, educational background and socio-economic status in most African countries have adversely influenced parents' capacity to guide their wards toward attaining successful educational heights (Aro & Ahonen, 2011). From this perspective, the questionnaire item sought to know the literacy levels, socio-economic status, and parental involvement of the study participants' parents and whether these factors contributed to their BECE grades. The recorded responses revealed 78 (representing 65.5%) "Yes" and 41 (representing 34.5%) "No"

responses from the 119 study participants. Additionally, members of the focus group discussion shared “overloaded house whole chores” as part of the home factors that affected their BECE grades. The details of the student’s responses are presented in Table 5.

Table 5: Home Factors

| Q1 Non-literate parents | BECE Grade | Class | | | |
|-------------------------|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 – 25 | 25 | 21.0% | 14 | 11.8% |
| | 26 – 35 | 23 | 19.3% | 8 | 6.7% |
| | 36 – 45 | 7 | 5.9% | 1 | 0.9% |
| No | 16 – 25 | 13 | 10.9% | 8 | 6.7% |
| | 26 - 35 | 10 | 8.4% | 4 | 3.4% |
| | 36 - 45 | 5 | 4.2% | 1 | 0.9% |

| Q2 Low socio-economic status | BECE Grade | Class | | | |
|------------------------------|------------|-------|-------|-------|------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 - 25 | 25 | 21.0% | 11 | 9.2% |
| | 26 - 35 | 21 | 17.6% | 6 | 5.0% |
| | 36 - 45 | 7 | 5.9% | 2 | 1.7% |
| No | 16 - 25 | 13 | 10.9% | 11 | 9.2% |
| | 26 - 35 | 12 | 10.1% | 6 | 5.0% |
| | 36 - 45 | 5 | 4.2% | 0 | 0% |

| Q3 Lack of parental support for learning | BECE Grade | Class | | | |
|--|------------|-------|-------|-------|-------|
| | | SHS 2 | % | SHS 3 | % |
| Yes | 16 - 25 | 24 | 20.2% | 15 | 12.6% |
| | 26 - 35 | 20 | 16.8% | 8 | 6.7% |
| | 36 - 45 | 5 | 4.2% | 2 | 1.7% |
| No | 16 - 25 | 14 | 11.8% | 7 | 5.9% |
| | 26 - 35 | 13 | 10.9% | 4 | 3.4% |
| | 36 - 45 | 7 | 5.9% | 0 | 0% |

| | | Class | | | |
|--|--|-------|---|-------|---|
| | | SHS 2 | % | SHS 3 | % |
| | | | | | |

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| Home Factors (Average Scores) | BECE Grade | SHS 2 | | SHS 3 | |
|-------------------------------|------------|-------|-------|-------|-------|
| | | | % | | % |
| Yes | 16 - 25 | 26 | 21.8% | 13 | 10.9% |
| | 26 - 35 | 23 | 19.3% | 7 | 5.9% |
| | 36 - 45 | 7 | 5.9% | 2 | 1.7% |
| No | 16 - 25 | 12 | 10.1% | 9 | 7.6% |
| | 26 - 35 | 10 | 8.4% | 5 | 4.2% |
| | 36 - 45 | 5 | 4.2% | 0 | 0% |
| Total | | 83 | 69.7% | 36 | 30.3% |

Source: Fieldwork, 2022

The data shown in Table 5 indicates that the three home factors did not support the academic success of 78 of the students, mostly 39 who made BECE aggregates 16-25, 30 in the 26-35, and 9 in the 36-45 category of grades in SHS 2 and SHS 3. At home, parents are to see to it that the school events, homework, and expectations of their children are well catered for. But a member of the focus group gave a contrary view of hardly receiving parental support for learning and was mostly overloaded with house whole chores. This finding is consistent with those of Nugba et al (2021) who pointed out parental non-involvement as a factor that affects students' academic performance. On the other hand, these home factors did not affect the performance of 41 of the 119 students. It also confirms Ajayi, Friedman and Lucas's (2020) finding that illiteracy and low socio-economic status put parents in a disadvantageous position in making sound educational choices for their children. Putting all the identified school, classroom, and home factors together (see Table 6) indicates that the majority (88, representing 73.9%) of the 119 students who gave "Yes" responses had their BECE grades influenced to an extent by the three environmental factors while the minority (31, representing 26.1%) who gave "No" responses were not. Table 6 shows the summary of the distribution of responses according to the categories of BECE grades obtained by the study participants.

Table 6: Environmental Factors

| Environmental Factors (Average Score) | Class | BECE Grade | | | | | |
|---------------------------------------|-------|------------|-------|---------|-------|---------|-------|
| | | 16 - 25 | % | 26 - 35 | % | 36 - 45 | % |
| Yes | SHS 2 | 28 | 23.7% | 25 | 21.0% | 8 | 6.7% |
| | SHS 3 | 18 | 15.1% | 7 | 5.9% | 2 | 1.7% |
| No | SHS 2 | 10 | 8.4% | 8 | 6.7% | 4 | 3.4% |
| | SHS 3 | 4 | 3.4% | 5 | 4.2% | 0 | 0% |
| Total | | 60 | 50.4% | 45 | 37.8% | 14 | 11.8% |

Source: Fieldwork, 2022

Results from Table 6 and the focus group discussions reveal the fact that environmental factors that emanate from school, classroom, and home influence some SHS students' ability to cope with academic work. The sort of grades the sampled students obtained align with the view that environmental deprivations in school, classroom, and at home immensely present barriers to students' academic performance and deny them from excelling academically (Ministry of Education, 2014; 2016).

CONCLUSION AND RECOMMENDATIONS

The research was necessitated by the uncertainty about the category of students who are generally perceived as “BECE under-performers” with respect to the poor grades they make in the BECE, for which reason some junior high school graduates are admitted into the visual arts programme in senior high schools. The idea is the unexplained reasons that make heads of senior high schools place “BECE under-performance” students in the visual arts programme even though the literature indicates that such students may probably have underlining learning disabilities attributed to various factors in school, classroom, and at home.

The sampled students' reported that their academic performance in school and the BECE, in particular, was influenced by “agents from the home setting” and “actors from the school environment”. The school had not responded in any way to accommodate or address the learning struggles the “BECE under-performance” students were experiencing in the classroom and their academic progress in the school. The home, which is expected to support the learning activities of the affected students was unavailable to the students. These environmental factors are compounding the affected students' learning challenges and impacting negatively on their academic achievement. They may even quit school out of frustration (Gartland and Strosnider, 2018; Liss et al., 2022).

Ghana Education Service (GES) and the Ministry of Education (MoE) should make practical efforts to bridge the equity, accessibility, and quality of education disparities at the primary school, junior, and senior high school levels to give equal opportunities to all students in Ghana. The Ghana Education Service should enforce regular monitoring of students' academic progress by teachers, parents, and school authorities to detect and deal with students' progress in learning. Visual Arts should not be a repository programme for “BECE under-performance” students.

Declaration of Conflicting Interest

The author(s) declared no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

REFEENCES

- Addadey, J. A., Quansah, F., Nugba, R. M. and Ankoma-Sey, V. R. (2022). Trapped in the ‘Web’: Challenges of Grade 9 Pupils in Choosing a Course to Pursue in Senior High Schools in Ghana. *Open Education Studies*, 2022; 4: 106–119 <https://doi.org/10.1515/edu-2022-0006>
- Adinyira, S. (2012). Perceptions and attitudes about the Senior High School Visual Arts Programme and their influence on students in the Kumasi Metropolis (Master’s thesis). Department of General Art Studies, Kwame Nkrumah University of Science and Technology. Ghana.
- Aidoo, B. J. K. (2018). Challenges Facing Visual Arts Programme of Senior High Schools in Ghana. *International Journal of Humanities Social Sciences and Education (IJHSSE)* Volume 5, Issue 3, March 2018, PP 136-142 ISSN 2349-0373 (Print) & ISSN 2349-0381 (Online) <http://dx.doi.org/10.20431/2349-0381.0503014>, www.arcjournals.org
- Ajayi, K. F., Friedman, W. H. and Lucas, A. M. (2020). When Information is not Enough: Evidence from a Centralized School Choice System. National Bureau of Economic Research Working Paper Series 27887. <http://www.nber.org/papers/w27887>
- Ankoma-Sey, V. R., Quansah, F. and Nsoh, J. (2019). Determinants of Students’ Enrolment in Home Economics Programme in Senior High Schools in Ghana. *European Journal of Education Studies* Volume 6 | Issue 4 | 2019 ISSN: 2501 - 1111 ISSN-L: 2501 – 1111. doi: 10.5281/zenodo.3355264 www.oapub.org/edu
- Asihene, G. N. (2009). The role of core subject teachers in the academic performance of visual arts students in Ghanaian senior high schools (Master’s thesis). Department of General Art Studies, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
- Aro, T. and Ahonen, T. (2011). Assessment of Learning Disabilities. Cooperation between Teachers, Psychologists and Parents. African edition.
- Azaglo, A. K., Oppong, C. E. and Antwi-Agyei B. B. (2021). Selection of Students for Visual Arts Programme at Senior High Schools in Ghana. *Academia Letters*, Article 4369. <https://doi.org/10.20935/AL4369>
- Baidoo-Anu, D., Gyamerah, K. and Chanimbe, T. (2022). Secondary School Categorization in Ghana: Silent Plights of Students and Implications for Equitable Learning. *Journal of Human Behavior in the Social Environment*. DOI: 10.1080/10911359.2022.2061665. <https://doi.org/10.1080/10911359.2022.2061665>
- Bin Ponijan, A. S. A., Bin Mat, M. F. and Leong, S. N. A. (2019). The Visual Arts Education Crisis in Malaysia: Placement of Students into the Arts Curriculum Stream at Upper Secondary Level in Malaysia Secondary Schools. *Journal of Visual Art and Design*, Vol. 11, No. 2, 2019, 79-92. *Academia*.
- Blantari, A. J. K. (2020). Stakeholders’ Satisfaction of the Computerized School Selection and Placement System in Ghana: The Case of Mfantseman Municipality. <https://erl.ucc.edu.gh/jspui>

- Centers for Disease Control and Prevention (2021). Learning disorders in children. <https://www.cdc.gov/ncbddd/childdevelopment/learning-disorder.html> [Retrieved 22/02/2021]
- Education Bureau of Hong Kong (2020). School Administration Guide: 2020/21 School Year. Education Ordinance, Education Regulations, Codes of Aid and the Relevant Legislations in Hong Kong. https://www.edb.gov.hk/attachment/en/sch-admin/regulations/sch-admin-guide/SAG_E.pdf
- Gartland, D. and Strosnider, R. (2018). Learning Disabilities: Implications for Policy Regarding Research and Practice: A Report by the National Joint Committee on Learning Disabilities. Hammill Institute on Disabilities 2018. sagepub.com/journals-permissions, DOI: 10.1177/0731948718789994, journals.sagepub.com/home/ldq.
- Ghana Education Service (2021). 2021 Second Cycle School Register. Release of 2020 Schools [Retrieved 03/07/2022]
- Iurea, C. (2015). Classroom Environment between Stimulation and Discouragement. Teacher's Contribution to Creating a New Socio-affective Environment Favoring the Teacher-Student Communication.
- Kranzler, J. H., Yaraghchi, M., Matthews, K. and Otero-Valles, L. (2019). Does the Response-to-Intervention Model Fundamentally Alter the Traditional Conceptualization of Specific Learning Disability?
- Liss M. S, Deepa, B. and Babu, G. (2022). Prevalence of Specific Learning Disorders (SLD) Among Children in India: A Systematic Review and Meta-Analysis. *Indian J Psychol Med.* 2022; XX:1–7.
- Martin, S. H. (2002). The classroom environment and its effects on the practice of teachers.
- Nazli T. and Vesa L. (2021). Creating a Friendly Classroom Environment for Primary and Lower-Secondary Students.
- Nugba, M. R., Quansah, F., Amkomah, F., Tsey, E. E. and Ankoma-Sey, R. V. (2021). A Trend Analysis of Junior High School Pupil's Performance in the Basic Education Certificate Examination (BECE) in Ghana. *International Journal of Elementary Education.* Vol. 10, No. 3, 2021, pp 79-86. Doi: 10.11648/j.ijeedu.20211003.15
- Ofori, E. A., Opokua, B. A. and Howard, E. K. (2018). Assessment of Art Elective Courses in Relation to the Pre-Requisite to Tertiary Art Programs In Ghana. *Journal of Advances in Education and Philosophy.* A Publication by "Scholars Middle East Publishers", Dubai, United Arab Emirates. ISSN 2523-2665 (Print). ISSN 2523-2223 (Online).
- Opoku-Asare, N. A. A. and Siaw, A. O. (2016). Curricula and Inferential Factors That Affect Student Achievement in Rural, Urban, and Peri-Urban Senior High Schools in Ghana: Evidence From the Visual Arts Program. *SAGE Open* July-September 2016: 1– 13. DOI: 10.1177/2158244016661747.
- Opoku-Asare, N. A., Tachie-Menson, A. and Essel, H. B. (2015). Perceptions, Attitudes and Institutional Factors that Influence Academic Performance of Visual Arts Students in Ghana's Senior High School Core Curriculum Subjects.

- Opoku-Asare, N. A. A. and Siaw, A. O. (2015). Rural–Urban Disparity in Students’ Academic Performance in Visual Arts Education: Evidence From Six Senior High Schools in Kumasi, Ghana. *SAGE Open* October-December 2015: 1– 14 DOI: 10.1177/2158244015612523.
- Robinson, R.S. (2014). Purposive Sampling. In: Michalos, A.C. (eds) *Encyclopedia of Quality of Life and Well-Being Research*. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-0753-5_2337
- Saani, A. and Amonoo, J. (2021). Predictors of School Choice: The Case of Parents in Cape Coast, Ghana. *European Journal of Education Studies*. Doi: 10.46827/ejes.v8i8.3880 ISSN: 2501 – 1111. ISSN-L: 2501 – 1111. www.oapub.org/edu
- Sekyere, E. A. (2016). Teachers’ Guide on Topical Issues for Promotion and Selection Interviews.
- Singh, A. S. and Masuku, M. B. (2014). Sampling Techniques & Determination of Sample Size in Applied Statistics Research: An Overview. *International Journal of Economics, Commerce and Management United Kingdom* Vol. II, Issue 11, Nov 2014. ISSN 2348 0386. <http://ijecm.co.uk/>
- Taherdoost, H. (2016). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *International Journal of Academic Research in Management (IJARM)* Vol. 5, No. 3, 2016, Page: 28-36, ISSN: 2296-1747 © Helvetic Editions LTD, Switzerland www.elvedit.com
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management (IJARM)* Vol. 5, No. 2, 2016, Page: 18-27, ISSN: 2296-1747.
- The World Bank (2020). Pupil-Teacher Ratio, Primary – Ghana. UNESCO Institute for Statistics (uis.unesco.org). Data as of February 2020. https://data.worldbank.org/indicator/SE.PRM.ENRL.TC.ZS?locations=GH&name_desc=false
- Trading Economics (2022). Ghana - Pupil-teacher Ratio, Primary. <https://tradingeconomics.com/ghana/pupil-teacher-ratio-primary-wb-data.html>
- Trezise, K. (2020). Emotions in classrooms: The need to understand how emotions affect learning and education. <https://npjscilearncommunity.nature.com/posts/18507-emotions-in-classrooms-the-need-to-understand-how-emotions-affect-learning-and-education>
- U.S. Department of Education (2016). ED Facts Data Warehouse (EDW): “IDEA Part B Child Count and Educational Environments Collection,” 2015-16. Data extracted as of July 14, 2016 from file specifications 002 and 089.
- Wong, B. and Butler, D. (2012). *Learning about Learning Disabilities*. Fourth edition. Elsevier’s Science & Technology, Elsevier International. ISBN: 978-0-12-388409-1
- Zwane, S.L. and Malale, M. M., (2018). ‘Investigating barriers teachers face in the implementation of inclusive education in high schools in Gege branch, Swaziland’, *African Journal of Disability* 7(0), a391. <https://doi.org/10.4102/ajod.v7i0.391>

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