Child migration and academic performance: The case of basic education in Ghana

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Abstract
The nexus between migration and academic performance is complex and difficult to extricate. Not only are there several factors affecting academic performance, but also many of these factors are confounding, making it difficult to identify and isolate in order to address. Furthermore, the discourse appears silent on the nexus between child migration and education in general and academic performance in particular. This study seeks to fill this gap by comparing the performances of 250 migrant and 240 non-migrant school children randomly selected and their examination marks obtained in ten basic schools in the Upper East region of Ghana. Using the Independent Sample T-Test to analyse the data, it emerged that although performance was generally low in the schools, non-migrant children performed relatively better than their migrant counterparts. This implies that, migrant children are more likely to underachieve and possibly unable to progress to higher levels of education since performance is a proximate determinant to academic progress in Ghana. Therefore, school authorities, parents and other stakeholders in education need to give more attention to migrant children in their schools to address the effects and improve learning outcomes.

Keywords: child migration, school attendance, academic performance, children

1. Introduction
Interrogating the nexus and exact impact of migration on educational outcomes faces three key challenges of dearth in data on migrant characteristics, inability to establish causality and presence of indirect socio-economic effects (Schapiro, 2009). Consequently, little is known about the relationship between migration and school attendance. This is mainly because, and as observed with child labour, it is more difficult to elicit information on school attendance from household surveys (Orazem and Gunnarsson, 2003). Nevertheless, migration has both direct and indirect effects on school attendance, academic performance and general expected outcomes of schooling. This is mainly because, when children attend school regularly, they are more likely to perform well in class which motivates them to learn, with prospects of brighter and higher future achievements. For instance, being absent with and without excuse from school has been found to be detrimental to learning and academic achievement (Gottfried, 2009 & 2011). Similarly, children who absent themselves from school for various reasons, including migration, are likely to underperform in class and also likely to underachieve, thus limiting their prospects of higher educational accomplishments.

Although some work has been done on the effects of migration on education in Ghana (Hashim, 2005 & 2007; Tamanja, 2012 & 2014), little attention has been paid to linking migration to academic performance. Okyerefo et al (2011) for instance, explored factors of academic performance in schools in Ghana, but did not link it to migration. The study was limited to few privately owned Junior High Schools (JHSs) in Accra where they found socio-demographic, school/home environment, social groupings and the influence of role models as the main factors influencing academic performance of students. Similarly, Abudu and Fuseini (2013) interrogated the effects of parenting on academic performance in Wa municipality and observed that children from single parent homes performed less than their counterparts living with both parents. Likewise, Abdallah et al (2014) compared performance in schools where students perform well against those that students do not perform well in two districts in the northern region of Ghana. However, the effect of migration on the academic performance is yet to receive any research attention in Ghana.

This study therefore intends to fill this knowledge and research gap by exploring how migration influences the academic performance of basic school children in a deprived district in the north east of Ghana. This is done by comparing the performance of children who are in the same class and experience similar conditions but one
group migrates during the end of year vacation to work and return at the beginning of the next academic year to continue with their colleagues who do not migrate.

2. Literature

Academic performance is generally referred to as how learners deal with their studies and accomplish different tasks given them. It refers to the quality and quantity of knowledge, skills and positive attitudes, behaviour and philosophy that students acquire (Ferguson, 1990). Furthermore, it refers to the ability of learners to study and remember facts and being able to communicate what has been learnt verbally or in writing, as well as the extent to which students, teachers or institutions have achieved their educational goals and commonly measured through examinations or continuous assessment (Yahaya, 2003).

Generally, academic performance of children is influenced by socio-economic status of parents, parents' educational level, student attitudes to learning, school environment factors, housing and residential experience (Yahaya, 2003; Donkor, 2010; Mahama and Campion, 2011; and Abdallah et al, 2014). Although there are several factors affecting academic performance, they are often grouped as school and home level factors. For instance, home and school level factors and a combination of both have been observed to have strong influence on academic performance of children (Abdallah et al, 2014). School level factors such as teachers and schools play important roles towards learning capabilities of students, including promoting active learning, developing thinking skills, creating effective learning zones, promoting success, providing effective feedback, recognizing and creating learning windows, developing good relationship, developing learning pedagogy, enhancing motivation and accepting individual differences (Yahaya, 2003). Therefore, students perform well when these factors are favourable but perform poorly on the contrary.

Furthermore, regular school attendance has been shown to provide children with the basic skills for learning and educational outcomes, and assists in the development of social skills such as communication, self-esteem, teamwork and friendship building (Australian Institute of Health and Welfare, 2009). On the contrary, poor attendance, participation and engagement are linked to adverse outcomes throughout the course of life, with limited school participation associated with a greater chance of dropping out of school (Schwab, 1999). Irregular school attendance is disruptive and promotes delinquent behaviour (Finn, 1989) and has the tendency of leading to a cycle of rebellion against authority (Marsh, 2000). For instance, in a survey on educational attainment between Aboriginal and non-Aboriginal school children in Australia, it emerged that as many as one-third of the gap in educational attainment could be attributed to poorer rates of school attendance for Aboriginal children (Zubrick et al., 2006). Therefore, participating effectively and engaging in the formal education setting is an important precursor to educational success since it prepares learners to accomplish tasks given them (Murray et al., 2012).

Similar observations have been made in Ghana on academic performance of school children (Okyerefo et al, 2011; Abudu and Fusieni, 2013; and Abdallah et al, 2014). For instance, in a study on factors that promote academic performance in privately owned Junior High Schools (JHSs) in Accra, socio-demographic; the school environment (supervision, availability of teaching and learning materials, homework/class assignment, and membership of a club); the home environment (the role of parents, the role of the media, friends, and siblings of the child); and social groupings (such as membership of a club) and the influence of role models as influencing academic performance of students were identified (Okyerefo et al, 2011). Furthermore, Abdallah et al (2014) grouped such factors into home level, school level and a combination of both. Although these studies were conducted on micro scales, involving only four privately own schools in Accra, and two districts in the north of Ghana respectively, the findings could be useful to the understanding of performance in public schools and also to migrant school children. For instance, Okyerefo et al (2011) found that supervision at all levels was effective with parents providing the enabling environments for their children while children themselves had high intrinsic motivation to learn. However, these conditions were found to be contrary to those in public basic schools where migrant children are mostly enrolled. There is laxity in supervision, poor parental care (probably due to poverty) with little or no motivation by children to learn. However, none of these studies has considered the effects that migration has on academic performance of school children who combine migration with education. Hashim (2005 and 2007) for instance, explored how children migrate in order to attend better resourced schools or apprenticeship at their destinations or save from their meagre earnings and return to continue schooling at their origin communities. Such earnings serve several purposes, including purchase of basic needs and as pocket money to buy food in school (Tamanja, 2012).
Furthermore, progress from one stage of the structure of education to another (usually from JHS to SHS and to Tertiary institutions) in Ghana depends on the performance of students at the Basic Education Certificate Examination (BECE) and the West Africa Senior School Certificate Examination (WASSCE). Students need to perform sufficiently well in order to progress in their pursuit of education. The BECE for instance, measures overall learning progress, and results since the late 1990s indicate that, less than two thirds of the candidates passed the test nationwide as at 2007 (UNICEF, 2009). The BECE results are very important to a child’s future, because it determines whether or not a student will progress to SHS, which can accommodate only about one third of the students who complete JHS. Therefore, the scarcity of places at the SHS makes a good BECE score vital as children who underperform are unable to progress. In a related instance, although primary school children do not write external examination to progress to the JHS, about 25% of primary school children in Ghana dropped out of school due to poor academic performance, while another 25.3% cited school conditions, migration, or distance between school and home as reasons for not progressing (Boakye et al., 1997; cited in UNICEF, 2009: 86). As such, it is plausible to use academic performance as a proximate determinant for academic progression since children who perform well are more likely to progress than those who perform poorly. Therefore, when children migrate and have little or no time to study, they may perform poorly and thus unable to progress in their education.

3 Study context

This study was conducted in Bongo district in the Upper East region of Ghana. Bongo District is one of 13 districts and municipalities in the Upper East Region (MLGRD, 2015), covering an area of 459.5 square kilometers (BONDA, 2010) with a population of 84,545 inhabitants (GSS, 2014). The land is mostly (40%) occupied by rocks (BONDA, 2010), reducing land available for farming activities. Agricultural activities are predominantly subsistent and rain-fed with small land holding. For instance, 93 per cent of the inhabitants are subsistent farmers on the 40% available land and thus depend mainly on their farm produce for their livelihood. Consequently, out migration is widespread and considered a livelihood strategy to cope with the challenging living conditions (Tamanja, 2012).

The population is mostly youthful with 54% less than 20 years old and a high growth rate of 2.8% with a density which has been increasing steadily from 61 persons per square kilometre in 1970 to 184 in 2010 (BONDA, 2010). The actual density of arable land is about 307 persons per square kilometre, making it the highest in the three northern regions with huge challenges to subsistence compound farming and household poverty (Tamanja, 2014).

3.1 Situation of migration

The phenomenon of migration is not new in Bongo district. It has always been a livelihood strategy to cope with the challenging environmental and economic conditions of the area. Although there are no official statistics on the state of the phenomenon, it involves adults and children, some of who are attending school (BONDA, 2010). Consequently, migration is very common among children, including those in schools. These children migrate during school vacations to work (mainly in urban areas in the south of the country) and return when schools reopen, to join their non-migrant colleagues in school (Tamanja, 2012 & 2014).

3.2 Education

The state of education in Bongo District (as in any rural area in Ghana) is bedeviled with numerous challenges, including inadequacy of teachers, furniture, teaching and learning materials. Although there are 79 kindergartens, 79 primary, 54 junior and 5 senior high schools, and a vocational institute (MOE, 2015) in the district, the combine effects of these challenges result in poor performance in schools and poor schooling outcomes in general. For instance, the performance of children in Basic Education Certificate Examination (BECE) in the district has consistently declined over the period between 2006 and 2014 (see figure 1).
As shown on figure 1, about a half (45.9%) of the candidates passed the examination in 2006 and 25% in 2014. This declining trend in performance is a disincentive, not only to the school children but also to parents, since the majority of the children cannot transcend from the JHS to the SHS. It is therefore plausible to observe that improving educational outcomes in the district requires more comprehensive and holistic approaches from all stakeholders. Therefore, considering the influence of child migration on academic performance is plausible since the children learn under the same school conditions and live in neighbourhoods with similar conditions. The only major difference is that, some children migrate during school vacation while the other group does not migrate. Therefore, it is plausible to hypothesis that the difference in academic or class performance, if any, could be attributable to migration.

4. Methodology

This study explores how the phenomenon of child migration influences the academic performance of children in rural schools in Ghana. It is mainly quantitative, employing a blend of comparative and cross-sectional designs, seeking to compare the academic performances of migrant and non-migrant school children. The choice of a cross sectional study was most appropriate as it enabled the collection of quantifiable data on academic performance and on more than one case (migrant and non-migrant pupils) at a single point in time (Bryman, 2012). In order words, it offered the opportunity for a detailed bird view of the phenomenon as in a snapshot, allowing for comparative analysis of migrant and non-migrant children within the population of school children, while allowing for conclusions to be drawn about the phenomenon across a wide population of children. Furthermore, it is relatively quick and easy to conduct without long periods of follow-ups and collects data on variables only once while also allowing for the study of multiple outcomes and exposures, since the phenomenon of child migration is multi-faceted.

4.1 Population, sampling and sample

The population for this study consists of two main categories; migrant and non-migrant school children. Currently, there are 79 kindergartens, 79 primary, 54 junior and 5 senior high schools, and a vocational institute in Bongo district (MOE, 2015). However, the study involved only children in junior high schools and specifically, those who were in their second and final years as the schools had no records on those who had transitioned from the primary schools. There were 45 JHSs in the district at the time of the study in 2012, of which ten (10), representing 22% of the population of JHSs were randomly selected after consideration was made for physical and locational accessibility.

Sampling in the 10 sampled schools was stratified and random. The total number of children in JHS 2 and 3 were 4,934 children in the district. This figure was obtained from the district office of the Ghana Education Service.
(GES), which also corroborated that of the National Education Management Information System (EMIS) data on school enrolment in the district. Generally, an exploratory sample needs not be an accurate cross-section of the research population, but based on the need to gain new insights on the topic of investigation and may include extreme or unusual examples of the phenomenon being studied (Denscombe, 2010: 24). Nevertheless, a sample of 356 school children was deemed representative of the population of 4,934 (see Krejcie and Morgan, 1970).

At the school level, children were first stratified into migrant and non-migrants, based on knowledge the children had of one another and with the assistance of their teachers. Selection was randomly made in each stratum in the sampled schools to give all children equal chance of being selected for the study. Consequently, a questionnaire was administered and class performance data collected on the sampled children in the 10 sampled schools. A total of 490 (250 migrant and 240 non-migrant) children were randomly selected to participate in the study. Although a sample of 356 was representative of the population of 4,934 JHS children in the district (Krejcie and Morgan, 1970), the actual sample that participated in the study was 490 children. This was occasioned by more children expressing interest to participate in the exercise. Since larger samples are more preferable in quantitative research, it was acceptable to allow for more children to participate.

4.2 Data collection instruments
The data for comparison was taken from performance records of sampled children in their schools. It was school-based performance records, consisting mainly of their end of term examination marks in English language, mathematics and integrated science. Although nine subjects are taught at the JHS level, the three are core to every Ghanaian school and students are required to perform sufficiently well in those subjects to be able to progress to the next (secondary) level of education. Furthermore, a questionnaire was developed and administered to the sampled children to gather bio and socio-economic data on them.

4.3 Data analysis
The data collected were captured into the IBM Statistical Product and Service Solutions (SPSS) and screened for completeness and normality. This was necessary to satisfy the conditions for using parametric techniques to analyse the data. The data was further analysed using the independent samples t-test for differences in performance between both groups of children involved in the study.

4.4 Ethical consideration
Research involving human participants is often intrusive and involves questions of rights and responsibilities. As such, access to schools and children were sought from gatekeepers at the district and school levels. For example, request for permission to enter schools was made to the District Directorate of Education after which the Assistant Director responsible for manpower and supervision was detailed to inform all head teachers of selected schools who intend facilitated access at the school levels. Moreover, every effort was made to protect the best interests of children by ensuring that participation in the research was not harmful to them. In this regard, the objectives of the research were explained to them and a brief write-up on the questionnaire, seeking consent and reiterating the need for objectivity, anonymity and confidentiality of the responses they provided. Conscious efforts were made to observe the rights of the child under the Ghana Children’s Act 1998 (Act 560) which requires the protection of the best interests of children, informed consent and data protection. All individual participants were informed of their rights of withdrawal from the study if they and the researcher’s responsibilities in terms of confidentiality, anonymity, and informed consent.

5. Findings
Migration is not the only factor responsible for academic performance of children in schools in Ghana. However, it is a contributory factor for children not progressing in their pursuit of education (Boakye et al., 1997; cited in UNICEF, 2009). It can also contribute to long absence from school and low academic performance (UNICEF, 2012). In this study, the distribution of the sampled children according to school, sex and categories is presented in table 1.
As shown in table 1, ten (10) schools were randomly selected out of the total of 54 public JHSs in the district and children randomly selected in each of the 10 schools depending on the target population of the schools. The sample consisted of 224 (45.7%) boys and 266 (54.3%) girls. The dominance of girls in the sample is consistent with enrolment in public JHSs in the study district (53.3%), although the national representation is 47.6% (MOE, 2015). Similarly, there were more girls (105) than boys (145) in the sample of migrant children. On the other hand, 273 and 217 were in JHS 2 and 3 respectively, with 250 being migrant and 240 non-migrant children in both classes (see table 2).

The age distribution of the sample included only one (1) non-migrant child who was less than 12 years old, with majority (63.7%) within the age cohort of 15 - 17 years (table 3).

This is not surprising since children as young as 8 years are reported to be involved in migration in Ghana (GSS, 2013). The appropriate age cohort of children who should be in JHSs in Ghana is 12 – 14 years (MOE, 2015). However, as shown in table 3, majority of the children were over-aged in their classes as 63.7% of the sample were within the age cohort of 15 – 17 years old. This is to be expected since the Net Enrolment Rate (NER) at the JHS level in the Upper East region is 40.6% with a high Gross Enrolment Rate (GER) of 87.8% (MOE, 2015). In other words, the ratio of enrolment in JHSs, regardless of the appropriate age (GER) is high, while the age appropriate enrolment (NER) is low, resulting in overage enrolment. As a rural district, over aged enrolment...
is a common feature in schools (UNICEF, 2012), accounting for the age distribution of the sample in this study. Moreover, majority (49%) of the sample had both of their parents alive (see table 4), with only 8.8% whose parents were not alive.

Table 4 Status of children’s parents

<table>
<thead>
<tr>
<th>Category of respondents</th>
<th>Both parents</th>
<th>Father</th>
<th>Mother</th>
<th>None</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migrant</td>
<td>116</td>
<td>14</td>
<td>96</td>
<td>24</td>
<td>250</td>
</tr>
<tr>
<td>Non migrant</td>
<td>124</td>
<td>14</td>
<td>83</td>
<td>19</td>
<td>240</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>28</td>
<td>179</td>
<td>43</td>
<td>490</td>
</tr>
</tbody>
</table>

As shown in table 4, many of the children whose parents were alive did not migrate as compared to those whose parents were not alive. About 55.8% of children whose parents were not alive were involved in migration. The status of parents being alive or not has been observed in a study in the Wa Municipality of Ghana, to influence academic performance as children who come from two parent homes performed academically better than those that are from single-parent homes (Abudu and Fuseini, 2013). Furthermore, the levels of educational attainment of parents of children who participated in the study are shown in table 5.

Table 5 Educational levels of parents

<table>
<thead>
<tr>
<th>Father’s level of education</th>
<th>Illiterate</th>
<th>Primary</th>
<th>MSLC</th>
<th>JHS</th>
<th>SHS</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migrant</td>
<td>209</td>
<td>19</td>
<td>20</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Non migrant</td>
<td>181</td>
<td>25</td>
<td>17</td>
<td>3</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>390</td>
<td>44</td>
<td>37</td>
<td>4</td>
<td>11</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother’s level of education</th>
<th>Illiterate</th>
<th>Primary</th>
<th>MSLC</th>
<th>JHS</th>
<th>SHS</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migrant</td>
<td>210</td>
<td>28</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non migrant</td>
<td>198</td>
<td>14</td>
<td>16</td>
<td>7</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>408</td>
<td>42</td>
<td>28</td>
<td>7</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

As can be seen in table 5, only 4 out of the 490 children who participated in the study indicated that their fathers attained tertiary education. Incidentally, children of such parents did not migrate. On the contrary, majority (79.6%) of the fathers of participant children were illiterates, accounting for 53.4% and 46.4% migrant and non-migrant children respectively.

Similarly, only 3 out of the 490 children indicated their mothers had tertiary education, while 83.3% of mothers were not literate. It appears from table 5 that, parents of most children in schools in the district have very low or no education and children of parents with some degree of education migrated less than those without education.

5.1 Migration and academic performance

In order to ascertain whether, the involvement of children in migration has any influence on their academic performance in class, data was taken from school based continues assessment records books on children’s performance in three core subjects: English language, mathematics and integrated science. Although students in JHSs in Ghana study and are examined in nine subjects: mathematics, English language, social studies, integrated science, basic design and technology - pre-technical skills or home economics and visual arts - information and communication technology, religious and moral education, French, and Ghanaian language and culture, their progress to the SHS level is dependent on their ability to perform sufficiently well in the three core subjects. These subjects are therefore essential in determining whether children can progress beyond the JHS level of education in Ghana.
Data was taken on children who migrated as well as their counterparts in the same classrooms who did not migrate during the end of year vacation, to determine if there was any difference in performance between the two groups of children. The rational is that, these children experience the same school conditions and are taught by the same teachers using the same syllabi. However, one group migrates during the end of year vacation to work while the other group does not. It is therefore logical to expect some difference in their academic performance, which could be reasonably attributed to their involvement in migration. Therefore, the hypothesis (H₁) to test is that:

**Study Hypothesis (H₁): There is difference in the academic performance between school children who migrate and those who do not migrate**

In order to test this hypothesis (H₁), the performance data on English Language, Mathematics and Integrated Science was entered into an SPSS template, after which the average performance (AvPerf) for the three subjects was computed and used for the analysis. As the data was parametric and normally distributed, the independent samples t-test was used to perform the test of difference in performance between the migrant and non-migrant pupils. A summary of the mean performances and test statistics are presented in table 6.

Table 6 Mean performances of migrant and non-migrant children

<table>
<thead>
<tr>
<th>Performance</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AvPerf</td>
<td>Migrant</td>
<td>250</td>
<td>46.456</td>
<td>10.651</td>
<td>-3.863</td>
<td>488</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Non migrant</td>
<td>240</td>
<td>50.046</td>
<td>9.884</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Language</td>
<td>Migrant</td>
<td>250</td>
<td>47.828</td>
<td>11.149</td>
<td>-3.032</td>
<td>488</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Non migrant</td>
<td>240</td>
<td>50.917</td>
<td>11.399</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>Migrant</td>
<td>250</td>
<td>43.228</td>
<td>15.571</td>
<td>-3.261</td>
<td>488</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Non migrant</td>
<td>240</td>
<td>47.787</td>
<td>15.368</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated Science</td>
<td>Migrant</td>
<td>250</td>
<td>48.364</td>
<td>12.627</td>
<td>-2.806</td>
<td>488</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>Non migrant</td>
<td>240</td>
<td>51.433</td>
<td>11.534</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in table 6, although the general average performance of children was low (migrant children scored an average of 47 while the non-migrant children scored 50 marks), there was a difference in performance with corresponding standard error means of 0.674 and 0.638 respectively, from the mean performance values. The standard deviation values indicate that indeed, performance among non-migrant children was relatively more consistent than among their migrant colleagues. In other words, children who did not migrate performed relatively better than their counterparts who migrated during school vacation. The differences in performance were also observed in all the three subjects, indicating that non-migrant children performed relatively better than their migrant colleagues in mathematics (43:48), English language (48:51) and in integrated science (48:51).

To determine whether, the observed differences were due to chance or from their involvement in migration, the independent sample t-test was performed (see table 6). The choice of this test was appropriate because the data was normally distributed around their arithmetic mean performance values and therefore satisfied the condition for using parametric test techniques. Besides, the sample was randomly selected, implying every pupil in the schools had equal chance of being selected. Moreover, the samples were of unequal sizes, consisting of 250 migrant and 240 non migrant children who were also independent and mutually exclusive of each other.

As shown in table 6, the performance of migrant children was 3.86 points less than their counterparts who did not migrate. This difference in performance, although small, was not due to chance as it was statistically very significant (t = -3.863, df = 488, p = 0.00), but could be attributable to their involvement in migration. The negative figure (-3.86) indicates that migrant children performed less than their non-migrant counterparts. Furthermore, at 95% confidence interval, the upper and lower bounds of the differences do not cross the zero mark. It is -5.416 to -1.764, indicating that the mean difference in academic performance between the two
categories of children is not zero. Therefore, the results can be confidently generalised beyond the sample to the population of pupils.

The result of this test shows that, there is statistical significant difference in the academic performance between migrant and non-migrant pupils. Therefore, the study hypothesis that, there is difference in the academic performance between migrant and non-migrant school children is not falsified but retained.

Further analysis was done to compare performance between the two groups (migrant and non-migrant pupils) in the three separate subjects (English language, mathematics and integrated science) and as shown in table 6, the difference in performance was significant in all the subjects. It was \( t = -3.032, \text{df} = 488, p = 0.003 \) in English language, \( t = -3.261, \text{df} = 488, p = 0.001 \) in mathematics and \( t = -2.806, \text{df} = 488, p = 0.005 \) in integrated science. The mean performance of the migrant children in English was about 48 marks while that of the non-migrants was 51 marks at \( p = 0.003 \) level of significance. In other words, non-migrant children performed a little above average in English language while migrant children performed a little below the average mark of 50. Similar pattern in performance was recorded (see table 6) in mathematics (43:48) and in integrated science (48:51) with statistical significances of \( p = 0.001 \) and \( p = 0.005 \) respectively. The high levels of statistical significance in average performance and in all the three subjects are indicative of the negative effects of migration on academic performance of children, although the general performance by both groups is low.

Further analysis was made to determine if there were any differences in performance between girls and boys and the results are presented in table 7.

### Table 7 Sex differences in performance

<table>
<thead>
<tr>
<th>Performance</th>
<th>Sex</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AvPerf</td>
<td>Male</td>
<td>49.85</td>
<td>10.179</td>
<td>224</td>
<td>3.219</td>
<td>488</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>46.84</td>
<td>10.454</td>
<td>266</td>
<td>1.547</td>
<td>488</td>
<td>.179</td>
</tr>
<tr>
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<td>11.829</td>
<td>224</td>
<td>1.347</td>
<td>488</td>
<td>.179</td>
</tr>
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<td>10.943</td>
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<td>488</td>
<td>.179</td>
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<td>2.822</td>
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<td>Integrated Science</td>
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<td></td>
<td>Female</td>
<td>48.19</td>
<td>11.989</td>
<td>266</td>
<td>3.351</td>
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</table>

As shown in table 7, average performance was low (just about average), with the boys performing relatively better (50 marks) than the girls (47 marks). The trend was similar in English language (50:49), mathematics (48:44) and integrated science (52:48) for boys and girls respectively. A test for significance revealed the difference was not just by chance as it was highly significant \( t = 3.219, \text{df} = 488, p = 0.001 \). Similar performances were observed in mathematics \( t = 2.822, \text{df} = 488, p = 0.005 \) and integrated science \( t = 3.351, \text{df} = 488, p = 0.001 \) except in English language \( t = 1.352, \text{df} = 488, p = 0.179 \) where the difference was not statistically significant. In other words, although there was some amount of difference in performance in sex in the English language, it was not significant \( p = .179 \) and thus not attributable to differences in the sex composition of the children.

### 6. Discussion of findings

This study found significant difference in performance between migrant and non-migrant school children. It thus confirms the hypothesis of differences in performance between school children who migrate and their counterparts who do not migrate. The finding supports those of Schwab (1999) when he observed that poor school attendance, participation and engagement are linked to adverse schooling outcomes. Similarly, it agrees with Zubrick et al., (2006) when they observed that as many as one-third of the gap in educational attainment
between Aboriginal and non-Aboriginal school children in Australia could be attributed to poorer rates of school attendance for Aboriginal children. Although causality is not impugned with this finding, migrant children are more likely to attend school irregularly and thus perform relatively poorer than their counterparts who do not migrate.

However, as performance in both categories was generally low (50 and 46.5 marks respectively for non-migrants and migrant children) and the difference was also small (3.86 marks), other factors such as home and school level factors and a combination of both (Abdallah et al, 2014) could be influencing the unaccounted for differences in performance of children.

Although there is dearth literature and empirical studies on child migration and academic performance, other findings on school environment (supervision, availability of teaching and learning materials, homework/class assignment, and membership of a club); the home environment (the role of parents, the role of the media, friends, and siblings of the child); social groupings (such as membership of a club) and the influence of role models as found by Okyerefo et al, (2011) could also likely be contributory factors influencing academic performance of students in Ghana.

7. Conclusion and recommendations
This study sought to investigate the influence of migration on the academic performance of children in JHSs in Ghana, by extracting school based performance data from randomly selected children in ten schools in the Upper East region of Ghana. The independent sample t-test was employed to test for differences in performance between children who migrate and those who do not. The results indicate that children who do not migrate during vacation perform relatively better than their counterparts who migrate. Although the general performance was low, migrant children performed 3.86 marks less than their non/migrant counterparts. This observed difference was very significant (t=-3.864, df=488, p=.001), indicating that it was not by chance. A similar trend was observed in performance in the three subjects. Further test among boys and girls revealed that boys performed relatively better than girls on average and in mathematics and science. However, there was no significant difference in performance between boys and girls in English language (t=1.347, df=488, p=.179). It is therefore reasonable to conclude that, migration has a negative influence on the academic performance of children, albeit minimal. Other factors besides migration have lots of influence on the performance of children in schools. As such, solving the problem of poor performance in schools requires holistic and concerted considerations to intensify supervision and reduce household poverty. Efforts should therefore be made to effectively address poor attendance by supporting students and families that are experiencing difficulties, and low self-esteem (Brookes, Goodall, & Heady, 2007). Furthermore, addressing the fundamental challenges of reducing household and parental poverty should be vigorously pursued with strengthening social support systems that caters for the needs of orphan children in particular.

References


