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RESEARCH ARTICLE



Is “One-Teacher-To-All-Subjects” Enough? Ghana’s Public Primary School System on a Slippery Slope

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Abstract

Primary school teachers in Ghana are made to teach based on the ‘generalist’ philosophy while their colleagues in the high schools run the ‘specialist’ viewpoint. Although, arguments made in support of this perspective may point at the universal training offered to these teachers, little is known about its effectiveness and challenges. Results from thematic analysis showed that both primary school teachers and pupils were generally not comfortable with generalist philosophy. These findings suggest that policies focused on teacher placements in primary schools must start looking at a possible adoption of subject-specific teaching, at least in the upper primary (4-6) levels.

Keywords: Teacher-Based Teaching; Subject-Based Teaching; Public Primary School; Pedagogy; Generalist; Specialist; Ghana.

Introduction

Ghana’s educational reforms have come a long way since independence. Dr Kwame Nkrumah, Ghana’s first president saw education as one of the necessary foundations for black emancipation and freedom. According to a statement he once made, “...*Only with a population so educated can we hope to face the tremendous problems which confront any country attempting to raise the standard of life in a tropical zone*” (McWilliam, & Kwamena-Poh, 1975, p. 94). Some of the significant efforts put in place by Dr Nkrumah were to make primary education as the foundation for higher levels of education. For example, the 1960’s saw the implementation of free compulsory primary and middle school education. Nkrumah’s government however placed training

of teachers and their welfare as paramount to the promotion of quality primary education as he wanted teachers “*to give service that is second to none*” [p. 97]. In view of this, teachers enjoyed one of the best remunerations compared to similar qualifications in other Ghanaian professions (McWilliam, & Kwamena-Poh, 1975).

Following the overthrow of the Nkrumah regime, Ghana’s educational policies continue to evolve each passing phase with concurrent progress and decline stories. The worst of all the stages of Ghanaian education to suffer most is the public primary and middle school system of education. Children from top and middle class homes were noted to afford some kind of quality education from private primary schools. These children were noted to have better chances of entering into the top class senior high schools and later into their desired programmes at the universities while the products from the public school encounter the opposite (Addae-Mensah, Djangmah & Agbenyega, 1973; Donge, 2003).

Just as it was some decades ago, public primary education in Ghana is yet to catch up with the private sector provision of basic education. Even though this gap might have been caused by multiplicities of factors such as; challenges in teacher training, poor teacher motivation, inadequate teaching and learning materials, and effective policy implementation among the basic education sector, the ‘teacher-based teaching’ or ‘generalist’ perspective is an elusive factor researchers and stakeholders in Ghana need to consider carefully (Acquah, Eshun, & Afful-Broni, 2013; Ashley, 2005). Ghana was known for its high standard of education adopted from the British since the colonial days (Owu-Ewie, 2006). Even though Ghana’s education system is making significant strides, the Organization for Economic Cooperation and Development’s [OECD] recent publication on global school rankings placed Ghana at the bottom of 76 countries. The report which positioned Asian nations in the top five places and African nations at the lowest saw a positive relationship between education and economic growth (Coughlan, 2015).

Over the years, several international organisations like the British Educational Research Association and other stakeholders have been looking at ways of refining their primary school system to enhance effective teaching and learning. At present, this study raises a similar question Alexander, Rose and Woodhead (1992) sought to answer, whether a single teacher can know enough to impart all the subjects to a primary school child?, in their purported “three wise men report”. Ashley (2005) sought to answer this primary question as an unbearable task for British primary school teachers using the ‘generalist’ perspective with much emphasis on Steiner-Waldorf pedagogy. Ashley and Lee’s (2003) study observed that primary school pupils were very concerned about the adequate level of their teacher’s knowledge to teach all subjects effectively rather than the gender of their teacher.

Primary school teachers in the Ghanaian public school system are ideally made to teach all subjects as class teachers. Although this had been the practice over the ages, little have been done with respect to assessing the quality of a single teacher’s sufficiency in teaching all subjects in the formative years of a child. Though little empirical studies have been conducted on this theme in Ghana to measure its effectiveness and efficiency, related findings confirm the need for change. Coupled with the challenges on inadequate educational infrastructures and materials, Ghana had been battling since colonial days over the best language [whether English language or a Ghanaian language] for instruction in the lower [Classes 1 to 3] primary schools (Acquah et al., 2013). After several simultaneous shifts between both languages between 1951 and 2008, the use of local languages for instruction was again re-introduced by the Ministry of Education Science and Sports under the National Literacy Acceleration Programme [NALAP] in 2009 (Owu-Ewie, 2006; UNESCO, 2003).

The problem of using one teacher to teach all subjects re-emerged as a recent study disclosed that some teachers in the lower primary could not use the local languages to teach under the NALAP. This was mainly due to the fact that some of them do not speak the accepted local languages for instruction at their posted Districts. These teachers were found to be using the English language as their medium of instruction. The study also noted that others who could speak the local languages were not adequately equipped to teach for example Science concepts using the local languages. These teachers were seen as giving wrong explanations with the local languages to terms during classes (Acquah et al., 2013).

The perception that, basic school teachers have been given an all-round training and as a consequence, have adequate knowledge on all subjects raises some concerns about instructional

quality in Ghana. Globally, teacher quality has been shown by several studies as a key factor of student learning (Aaronson, Barrow, & Sander, 2007; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004). In this vein, the knowledge level of teachers on subjects has been shown to be significantly and consistently related to students' achievement level (Hanushek, & Rivkin, 2006).

One disadvantage seen with regards to primary school education data is that pupils are only taught by a single teacher (Slater, Davies, & Burgess, 2009). This means that if a particular teacher is not experienced in a particular subject area, the pupils do not have the privilege to benefit from any other teacher. In a study assessing grades 2 to 6 teacher effectiveness from two school districts in New Jersey from 1989/90 to 2000/01, teacher know-how was depicted as the only significant determinant of pupil performance on maths and reading exam results. It however could not identify any noticeable teacher characteristics to have significant effects on pupils' performance in the primary school (Rockoff, 2004). The aim of this study is to explore the benefits and challenges associated with the generalist philosophy employed in primary schools in Ghana.

Method

Participants

Using purposive and convenience sampling methods, thirty-seven interviews were conducted among teachers, parents, pupils and other stakeholders in the education sector. The respondents were classified into the following categories; 12 pupils formed the Child Respondents' (CR) group, 11 professional teachers formed the Teacher Respondents' (TR) group, 6 non-teaching parents/guardians formed the Parent Respondents' (PR) group, 3 retired directors of education formed the Educationist Respondents (ER) group, and 5 other interested personnel of organisations' with interest in education formed the Stakeholder Respondents (SR) group.

The respondents' ages for the CR ranged between 8 and 17 years with educational level ranging from primary to senior high level. Children below 7 years were excluded because of their level of cognitive development. Children above 7 have relatively well-established framework for cognitive judgement especially on issues pertaining to perception, memory and imagination and gender identity (Almakhan, & Manshuk, 2014; Hutchings et al., 2008). Children in the high schools were also included due to the fact that they were more likely to have experienced both the generalist and specialist modalities of teaching, from primary to either junior/senior high schools. The rest of the respondents groups were aged between 24 and 62 years old. These were mainly selected based on their current job [e.g. Teacher Respondents' group; Educationist Respondents group; Stakeholder Respondents group] and primary social roles like parenting [e.g. Parent Respondents' group] related to the topic under study. Table 1 shows a detailed description of the groups of respondents.

Table 1: Summary of Respondents' Demographic Details

Categories	Gender	
	Male	Female
Child Respondents' group	CRm1, 8 years old, primary 3 CRm2, 10 years old, primary 5 CRm3, 9 years old, primary 4 CRm4, 14 years old, JHS 2 CRm5, 15 years old, SHS 1 CRm6, 16 years old, SHS 2 CRm7, 12 years old, primary 6	CRf1, 8 years old, primary 3 CRf2, 10 years old, primary 5 CRf3, 11 years old, primary 6 CRf4, 13 years old, JHS 2 CRf5, 14 years old, JHS 3
Teacher Respondents' group	TRm1, 29 years old, primary 6 TRm2, 42 years old, primary 5 TRm3, 35 years old, SHS Maths TRm4, 48 years old, JHS English	TRf1, 38 years old, primary 1 TRf2, 24 years old, primary 3 TRf3, 24 years old, primary 3 TRf4, 56 years old, primary 5 TRf5, 35 years old, SHS English TRf6, 37 years old, primary 2 TRf7, 33 years old, primary 4

Parent Respondents' group	PRm1, 54 years old PRm2, 47 years old	PRf1, 55 years old PRf2, 39 years old PRf3, 46 years old PRf4, 54 years old
Educationist Respondents group	ERm1, 62 years old	ERf1, 68 years old ERf2, 61 years old
Stakeholder Respondents group	SRm1, 54 years old SRm2, 48 years old SRm3, 38 years old SRm4, 55 years old	SRf1, 51 years old

Measures

Semi-structured questionnaires were used to collect brief interview data between the time frame of 15 and 30 minutes per session. The research questions were adopted from previous studies which raised related queries on the generalist philosophy used in elementary (primary) schools in Ghana (Acquah et al., 2013; Donge, 2003), Europe and America (Ashley, 2005; Aaronson et al., 2007; Hanushek, & Rivkin, 2006; Rivkin et al., 2005; Rockoff, 2004; Slater et al., 2009).

The semi-structured interview guide sought to answer the following research questions:

- Does one teacher have enough knowledge and proficiency to teach all the required subjects in the Ghanaian primary school system?
- To what extent does one teacher teaching all subjects in the Ghanaian primary school system beneficial?
- What practical challenges can be observed among pupils and teachers undergoing the generalist philosophy in the Ghanaian primary school system?
- How can the specialist system of teaching effectively help to resolve the current challenges in the Ghanaian primary school system?

The list of key questions was drawn up and was used by both interviewers, but follow-up questions varied due to the responses given by the respondents.

Notes: The language was adapted for the younger respondents in the CR group.

Procedure

Formal consents were obtained from all respondents before commencing with the data collection. Parents/guardians were sent consent letters clarifying the study and the nature of their children's prospective involvement. After attaining consent, the interview data collection was commenced using portable recorders. Distant respondents were reached on special mobile telephones with installed recording application. These were done consecutively over a five-month period during respondents' available period.

The Child Respondents' group were asked about their experiences of teaching and classroom management within the primary school setting, where a single teacher teaches all subjects. Those in the high school levels were particularly asked whether there were differences in the teaching or management of having one-teacher-to-all-subjects and one-teacher-to-specific-subject(s).

The study followed a similar approach to that of Mayall (2000), due to the fact that we were directly examining the children to help us to comprehend what it is like to be taught following the generalist and specialist approach in a classroom situation. Nonetheless, we used single interviews rather than Mayall's paired or group interviews.

The Teacher Respondents' group were also asked about their experiences and/ or view on teaching and classroom management with one-teacher-to-all-subjects and one-teacher-to-specific-subject(s). The rest of the respondent groups were similarly interviewed along these lines. After interview sessions, all respondents were thanked as a sign of gratitude for their time.

Data Analysis

The audio-recorded interviews were fully transcribed with names anonymised using pseudonyms and codes. Interviews were simultaneously collected and analysed manually using thematic analysis until we reached theoretical saturation. This was the point where we discovered no new themes (Morse, 1995).

It is important to appreciate that this idea may only be a myth. Thus, the assertion that saturation of data has been reached may be relative to a particular case setting or time frame (Morse, 2007). Subsequently, we stopped our interviews after we found that the similar themes were reoccurring after the 37th respondent.

Our manual thematic analysis followed the six stages outlined by Marshall and Rossman (1999). Major themes and sub-themes were successively organised to tell a comprehensive story (Sarfo, & Asiedu, 2013; Marshall and Rossman, 1999; Vaismoradi, Turunen, & Bondas, 2013).

Results

This section sets out the interview responses to questions about what was liked or disliked about one-teacher-to-all-subjects and one-teacher-to-specific-subject(s). At theoretical saturation, two main themes emerged. These were; Generalist Benefit Features and Generalist Challenge Features.

Subthemes emerging under the Generalist Benefit Features included Strong Teacher-Pupil Bond and Role Modelling. On the other hand, Generalist Challenge Features materialised subthemes; Boredom, Subject-Expertise Crises, Subject-Achievement Crises, and No-Teacher-Syndrome. A tabular summary of themes and subthemes can be observed in Table 2.

Table 2: Thematic Output of the Summarised Data

Themes	Subthemes
Generalist Benefit Features	<ul style="list-style-type: none"> • Strong Teacher-Pupil Bond • Role Modelling
Generalist Challenge Features	<ul style="list-style-type: none"> • Boredom • Subject-Expertise Crises • Subject-Achievement Crises • No-Teacher-Syndrome

Generalist Benefit Features Observed in the Analysis

This theme became evident, as having a single teacher teach all subjects at the formative years of children. Two subthemes emerged in this theme.

Strong Teacher-Pupil Bond

Key among the benefits obtained from being taught by one teacher for a year was a strong teacher-pupil relationship. Pupils spend ample time during the days of the week with their teachers who serve as both caregivers and instructors. In effect, teachers in the primary school seem to have a stronger bond with their pupils as they perform roles of pseudo-parenting.

Even though I've completed my postgraduate education, I still remember my primary six teacher's name. Mr B. K. was like a father to us all. He even had time to walk to the houses of my mates who were truants to bring them to school. (SRm3, 38 years old).

Thus it looks that, children more often associated parental roles and attributes to their teachers who spent more time with them.

Effective Role Modelling by Teachers

Teachers within the primary school setting were noted as having much influence due to their consistent time with the children. In essence, they become the closet figures in view that pupils

would like to emulate, both in the school and outside settings. Teachers served as model of discipline, intelligence, moral standards, and other good qualities.

My class teacher is so nice to us. I would like to be like Miss Aba by being a teacher in the future. (CRf3, 11 years old, primary 6).

Nonetheless, some of the characteristics of the primary school teacher that the pupils would like to emulate were in some cases gendered. It became obvious in the analysis that the boys and girls were more likely to identify the 'masculine' and 'feminine' characteristics of their teachers respectively.

When I grow old, I will like to look tall and strong like Mr K. K. (CRm1, 8 years old, primary 3).

Most importantly, teachers were recognised as role models with respect to their conduct towards others and their own personality.

Generalist Challenge Features Observed in the Analysis

This theme generated several subthemes. The generalist perspective or having one-teacher-to-all-subjects was seen as posing several difficulties to both teachers and pupils. Four subthemes emerged in this theme.

Boredom among both Teachers and Pupils

Among the challenges that go with having a single teacher for all subjects is the issue pertaining to boredom. This mode of classroom dynamics presents a system of monotony which can decrease excitement and attention. It easy to experience a bad day, once the teacher does something bad to the class.

I can't explain it very well but I used to get so tired with seeing the same teacher during every period throughout the day. I like the JHS system where teachers take different subjects. I think there is variety (CRf5, 14 years old, JHS 3).

Teachers in the primary school also get tired sometimes with the routines of sitting in one class with the same pupils to teach all subjects every day.

The subject based teaching makes the teacher very active because of the specialisation. There are also varieties of teaching styles for students each day. (TRf5, 35 years old, SHS English).

Even though the teacher gets to know the students very well since he/she is with them all the time, it is very boring sometimes. (TRm4, 48 years old, JHS English).

Subject-Expertise Crises among Teachers

This subtheme nearly emerged as a difficulty in almost all the interviews. Complaints were evident with issues relating to either the instruction of certain subjects or the use of a local language to teach in the lower primary under the NALAP.

I really love to teach but of late I struggle with my new post to teach class 1 in a Ga-Adanbge community. I can't speak their language because I am an Akan and read Twi as my Ghanaian language option in the Teacher Training College. At the moment, I can't teach these children in their local language so I have to use the English language. I have complained to the authorities but there seems to be no option now. (TRf1, 38 years old, primary 1).

Some specific subjects need specific or specialised teachers for that. For me I didn't like teaching science but I had to teach it as an elementary school teacher. (ERf2, 61 years old).

Wow, even at the training college, there is specialization. If yes, then think about the subject base teaching as the way forward. ...assessment is better because the different subject teachers can give enough exercises and be able to mark them, which will be too difficult for one teacher to do. (TRm3, 35 years old, SHS Maths).

Some of the non-teaching respondents also shared similar views and supported specialty teaching.

For me, I am not a teacher but I believe in division of labour and that leads to specialisation. This is more effective. (PRm1, 54 years old).

The challenge as to one teacher having all the expertise needed to teach all subject was obvious at this point.

In fact it is boring! How can a teacher be good or have upper hand in all the subjects, it is impossible. At least let's consider the upper primary for subject-based teaching. (TRf2, 24 years old, primary 3).

Subject-Achievement Crises among Pupils

The analysis shows an unfortunate consequence on the pupil performance, once the teacher does not have adequate skill or passion for the instruction of a particular subject. The passion to perform or even study some courses by some students or pupils can be hampered through this process.

My teacher normally teaches mathematics and English regularly but as for Citizenship and Twi, she doesn't like to teach often and will also write exams at the end of the term in these subjects. I wish we can get another teacher for Citizenship and Twi. (CRm2, 10 years old, primary 5).

Other respondents however recalled their poor performance, phobia and/ or hatred toward a particular subject or a course in the future because of how their primary teachers handled these subjects. What is clear in their discourse was the ideology of identification.

As you can see, little children trust their teachers a lot. If a teacher is not proficient in a particular subject, the damage done to the child's memory is tragic. This is one of the reasons why some people are maths phobia and science phobia. I think a teacher who is specialised in maths education can even boost the morale of an average student. (SRm2, 48 years old).

No-Teacher-Syndrome when Teacher misses School

The 'No-Teacher-Syndrome' is a novel term we gave within our analysis to categorise all the events that take place once a primary school teacher is absent. This is worse in areas where there is inadequate staffing. Some of these respondents shared experiences of times in rural schools where a primary school teacher taking two or more classes falls sick or goes on maternity leave. The aftermath can be observed in the class having no better teaching and learning activity. In the cities where head teachers serve as backups, the effect may be minimal.

When our madam does not come to school, we don't study anything. A free teacher from our JHS would come to control the class but we won't learn anything better apart from reading books. (CRm7, 12 years old, primary 6).

In the process of validating this view from some of the TR group members, this was noted as a risk factor rather than an everyday occurrence.

Primary teachers are human beings and can be absent for reasons like sickness and so forth but this is not so frequent. This is not in the best interest of these pupils, but the head teacher and other colleagues in school are able to manage such official absence. (TRf4, 56 years old, primary 5).

Discussion

The data have revealed an intricate set of patterns. From the analysis, having a single teacher teach all subjects at the formative years of children was seen to enhance a strong teacher-pupil relationship and mentoring. Studies on primary school teachers as role models do specify the unique role of teacher-pupil relationship in elementary school (Pepperell, & Smedley, 1998; Mills, 2005; Skelton, 2001). In support of this argument, research confirms that every child yearns for a good teacher and does not mind whether it is a male or a female (Bricheno, & Thornton, 2002; Lahelma, 2000; Ashley & Lee, 2003).

Generally, these positive aspects of having a class teacher do not necessarily mean that this single teacher should teach all subjects. The dimension of arguments laid for the generalist approach seems to tilt towards this angle. This raises the question, to what extent do these role model perspective and bond patterns go after a child completes his or her primary education in Ghana? It was evident from our analysis that although some of the respondents might have completed their primary education over a decade, they still have memories of their primary school days. The dual role of primary school teachers as both caregivers and instructors are very crucial as the child's cognitive capacity develops rapidly (Almakhan, & Manshuk, 2014; Hutchings et al., 2008).

On the other hand, we have to consider also, the extent to which the generalist perspective or having one-teacher-to-all-subjects is influencing the Ghanaian primary school setting. Boredom is raised as one of the main challenging subthemes. This aspect of stress was associated with the belief that goes with having a single teacher every day. In a sense, the results show that this is never a problem until instructional quality is affected. Studies on education see teachers' professional knowledge as an essential determining factor of instructional quality (Baumert, & Kunter, 2006; Munby, Russell, & Martin, 2001).

An important prompt can be taken from the developments made in primary education by countries such as Sweden [in 1st Grade], South Korea (Reys, & Fennell, 2003), and China (Ma, 1999) who are working hard to provide specialists in subjects like mathematics, even at their primary schools. According the Conference Board of Mathematical Sciences (2000) in United States of America, changes were supposed to be made to allow Grade 5 to be taught by specialist in mathematics education. Similarly, Ashley (2005) had also advocated for specialist teaching in the primary school in the United Kingdom. With recent updates by the OECD on the global school ranking of Ghana on mathematics and science education (Coughlan, 2015), the impact of the generalist model has to be revisited. The negative effects on students, like the hampering of passion to perform or study some courses and subject phobia in the future cannot be ruled out. Thus, it is clear that, specialty options are also needed in primary school settings of Ghana's education, at least in the upper primary levels.

The results suggest that some of the teachers were not proficient and/or passionate vis-à-vis the teaching of subjects like mathematics and science. This situation is worsened when the teacher is posted to the lower primary classes. Due to the point that, some teachers are posted to districts other than their own ethnic groups and/or have poor proficiency in the local languages, findings show that such teachers had obvious challenges to teach all subjects in the lower primary level. The success of implementing programmes like NALAP by the Ministry of Education hangs on this frame. Acquah et al. (2013) observed that teachers who struggled to teach scientific concepts with the local languages often gave wrong explanations of terms during classes. This confirms the results of the study that although primary school teachers have been well trained, there is a need for some level of specialisation in subject area. These results are well in line with previous studies on the positive influence of domain-specific knowledge in the teaching and learning of mathematics (Baumert et al., 2010, Hill, Rowan, & Ball, 2005).

Limitations

The use of a non-standardised semi-structured questionnaire and fewer questions may not be very adequate. Future studies will benefit from a standardised instrument and additional research questions. Novel themes like No-Teacher-Syndrome can be looked at in prospective studies. Nonetheless, results from this study have implications for future studies, pedagogy and policy.

Conclusion

Teachers in Ghanaian public primary schools are noted as “Jack of all trades” when it comes to teaching pupils. Although arguments made in support of this perspective may point at the unique universal training offered to these teachers by their institutions, little has been done to evaluate this system of teaching and learning. This qualitative study examined the existing nature of “Teacher-Based Teaching” in Ghana, its benefits and challenges. A total of 37 interviews were conducted among teachers, parents, pupils and other stakeholders. Using thematic analysis, the results showed that pupils in the primary schools benefited from a strong teacher-pupil relationship and role model effect, since a single teacher spends the whole day with students. Nonetheless, factors like boredom, low expertise and poor performance in some subjects, specific subject phobia, poor performance, and boredom emerged in the analysis. An interesting phenomenon, “No-Teacher-Syndrome” was observed once teachers taking all subjects were absent from school even for a day.

Recommendations

The challenges as to one teacher having all the expertise needed to teach all subject, affect not only the achievement of the pupil in primary school, but in the future also (Hanushek, & Rivkin, 2006). The study recommends a further examination into the issues raised. The Ministry of Education and Ghana Education Service may look at strengthening the policy on specialist or subject-based training of teachers. In-service training can be offered to teachers to build them on specific subject of interest.

In addition, policy implementation of programmes such as the NALAP should also consider Ghanaian language proficiency of teachers during their training. The knowledge level of teachers on subject taught in class is very crucial and needs to be looked at within the context of primary level education in Ghana. These findings suggest that policies focused on teacher placements and training in primary schools ought to take a second look at a possible adoption of subject-specific teaching, at least in the upper primary (4-6) levels

Conflict of interest statement

The authors declare that they do not have any conflict of interest.

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