

TEACHER TRAINEES' KNOWLEDGE, UNDERSTANDING AND PRACTICE OF EARLY GRADE READING INSTRUCTION IN SELECTED GHANAIAN COLLEGES

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Abstract

This study employs the mixed method approach to examine selected teacher trainees' knowledge, understanding and practice of early grade reading. The purpose was to investigate the different kinds of knowledge that the trainees had about reading instruction, their understandings of why that knowledge is important to reading instruction and how they applied these to construct classroom practice during teaching practice. Trainees on teaching practice in 24 purposively sampled basic schools attached to four Colleges of Education (COEs) provided data for the study. Questionnaires were administered to 156 trainees, after which lesson observations and forensic interviews were conducted with 36 of them. The study found that the trainees demonstrated some knowledge about early grade reading and how it should be taught. Although there were a few positive variances in their practices, majority of them demonstrated over-emphasis on procedural knowledge and how to get the sequence right even when the approach did not yield results, without reflection and adaptation. The trainees also seemed to underestimate the difficulties of teaching early grade reading. It is recommended that urgent attention be given to addressing these identified issues through the pre-service programme, while developing trainees' and teachers' ability to reflect and critically engage and analyse methods and procedures in the light of examples of real contexts.

Key words: teacher trainees, knowledge, understanding, practice, early grade reading

Introduction

The goal of Education for All and the Millennium Development Goal (2) make it mandatory for every nation or state to ensure that by 2015, children everywhere will be able to complete a full course of primary schooling. This has impelled many countries in Sub-Sahara Africa to confront their historically low rates of enrolment. Consequently, there have been remarkable improvements in primary school enrolments.

In Ghana, primary school enrolment has increased remarkably (GSS, 2005). This has been achieved through instituted policies and strategies such as fee-free education, the capitation grant, free uniforms and exercise books in some cases and school feeding programme. However, it has become increasingly clear that it is not enough to simply make physical access to basic education available. If Education for All is to have positive social and economic consequences, then the education system must ensure that children are equipped with the basic minimum competences of literacy that will enable them to benefit from and contribute to their society's future.

Unfortunately, studies show that many children in school are not learning very much especially in language and mathematics (UNESCO, 2008), and this is particularly so in Sub-Sahara Africa. The first years of children's schooling are known to be especially important, as their early experiences with learning shape their attitudes and commitment to education and determine their educational future. Unless they make sufficient progress at this stage they are liable either to cease coming to school entirely, relapsing into illiteracy, or to become the 'silently excluded' who are not able to access the increasingly demanding work of the later grades (Liddell & Rae, 2001; Lewin, 2009). This is particularly true in reading which underpins understanding across the school curriculum. Children who achieve early success in reading are more likely to stay in school realizing immediate rates of return, while those who do not grasp the skills and point of reading are in danger of early drop out and a relapse into illiteracy (Chabbott, 2006).

Research shows that there is a relationship between quality of teaching and that of learning, and that, weaknesses in teachers' pedagogical content knowledge (PCK) and classroom practice hamper effective student learning and achievement (Pontefract & Hardman, 2005). Teacher education has been identified as both part of the problem and the solution to this situation. In the Ghanaian context, there appears to be more attention given to addressing the problem of teacher demand to meet the increasing pupil enrolment than on monitoring what actually goes on during the preparation of teachers. There also seems to be little connection between what goes on during initial teacher preparation and in schools, and how one should inform the practice of the other.

To fill the gap in knowledge about how the initial preparation of teachers impacts on their practice in the first three grades of primary school, the Teacher Preparation in Africa project (TPA), funded by the William and Flora Hewlett Foundation was set up through studies in six African countries: Ghana, Kenya, Mali, Senegal, Tanzania and Uganda. This paper reports on

part of the research that was carried out in Ghana. It addresses the following questions:

1. What do teacher trainees know and understand about early grade reading instruction?
2. How do they teach early grade reading during teaching practice?
3. How does their practice relate to what has been taught and learnt in their training?
4. What are the gaps in their knowledge and practice?

With these questions as a guide, the paper examines and describes the knowledge, understanding and practice of the trainees. It uses these as a pointer to the relationship between initial teacher preparation and pupils' attainment in reading. The findings are used to suggest feasible ways in which teacher preparation in Ghana might be improved.

The paper begins with the conceptual framework. The context follows, then the research design and methodology are described after which the results are discussed with conclusions drawn and recommendations made.

The Framework

The study was framed on the concept of competence as it relates to knowledge and understanding of the subject matter to be taught and its practice. Practice is seen to be central to good teaching. The framework is based on the understanding that good practice is a complex process which requires a great deal of different knowledge other than un-reflected application of techniques. This is derived from Shulman's (1987) conception that while content knowledge is important, teaching also requires pedagogic knowledge which concerns how to engage with learners and how to manage a classroom.

However, according to Shulman (1987), in order for these two kinds of knowledge to guide actual practice, a third category is crucial, namely pedagogical content knowledge, which is, knowing how to represent and formulate the subject matter, in order to make it comprehensible to students. This provided the basis for the study, and the purpose which was to (a) investigate the different kinds of knowledge that the trainees had about reading instruction, (b) their understandings of why that knowledge is important to reading instruction and (c) how they applied these to construct classroom practice. In this regard, the literature on what constitutes beginning reading and how to represent and formulate them to beginners was examined and used to guide the investigation.

The Nature of Reading

Reading has been defined to include the expression of several behaviours such as reading real words in isolation or in context, reading pseudo words that can be pronounced but have no meaning, reading text aloud or silently, and demonstrating comprehension of text that is read silently or orally (National Institute of Child Health & Human Development (NICHD), 2000). Reading is done with the aim of generating meaning from a text. To achieve this, readers have to decode graphemes (lines and shapes which represent spoken sounds) into words, sentences and then continuous text and attach meaning to them. It is only when the reader achieves this aim that the cognitive work involved in the decoding exercise becomes worthwhile (Meek, 1994; Ehri, 2002).

The US-focused National Reading Panel lists five key reading skills that can enable children to read: (1) phonological awareness (discriminating different spoken sounds in words); (2) phonics (sound to letter relationship); (3) fluency (ability to read orally aloud or silently with speed, accuracy, and proper expression and contributing to comprehension); (4) Vocabulary (acquiring sight vocabulary, inferring new words) and (5) Comprehension (meaning-making) (NICHD, 2000). While decoding is learnt first, these five reading elements are coordinated simultaneously, working together in a causal relationship or 'bootstrapping'. In this sense, the growth of one area supports the others (Stanovich, 1986). Therefore, the beginning reader must be exposed to each of these elements.

Phonological awareness, the first item in the list involves the introduction of phonics instruction, which stresses the acquisition of letter-sound correspondences and their use in reading and spelling. Phonics instruction aims at helping beginning readers to understand how letters are linked to sounds (phonemes) to form letter-sound correspondences and spelling patterns, and to help them learn how to apply this knowledge in their reading (Trudell & Schroeder, 2007). Phonological awareness is developed in a print-rich environment, and also through oral proficiency. This then leads to letter/sound identification and a build-up to syllables and words/vocabulary – or vice versa.

The ability to read fluently and pronounce and infer new vocabulary in reading is as important as the ability to make sense of text (Trudell & Schroeder, 2007). Text comprehension is the ability to interact cognitively with continuous text, a sentence or a short story to draw out meaning and create mental models of the text. It is believed that to achieve this, one requires a sight vocabulary of 95 percent of the words on the page, fluency in reading

aloud or silently and knowledge of syntax learnt from the grammar of the spoken language (Ehri, 2002; Malatesha, 2005). Cain (2010) describes the process as text integration, local and global coherence; comprehension monitoring; and knowledge of text structure, which being essential, can be taught to very young children through oral storytelling and picture books as well as continuous text.

Text comprehension is also believed to be enhanced when readers are made to actively relate the ideas represented in print to their own knowledge and experiences, and construct mental representations in memory (NICHHD, 2000). This is expected to be done through explicit instruction in the application of seven comprehension strategies, which have been shown to be highly effective (Centre for Education, 2010), namely: (1) summarising what is read (2) generating questions from the text (3) using diagrams, maps or pictures to understand the text (4) predicting what will happen (5) clarifying what has happened (6) drawing inferences and (7) self-regulating or monitoring. Research suggests that the use of a multiple strategies provides the best instruction (NICHHD, 2000; Centre for Education, 2010).

What Teachers need to know to Teach Reading

To help children to demonstrate reading ability, research recommends that teachers should have a firm grasp of the content presented in text, and more importantly, have substantial knowledge of and use different strategies to make children read (NICHHD, 2000). It is also recommended that teachers must know which of those strategies are most effective for different children. In addition, they should have theoretical knowledge of reading development, how to create and manage a print and language rich classroom, understand the different cultural contexts in which languages are used and to diagnose the proficiencies of learners (Commeyras & Inyega, 2005; Moats, 2009).

What this means is that, the acquisition of subject matter and pedagogical content knowledge must be key components of any reading teacher preparation programme (Risko et al., 2008). All of this demands a substantial knowledge base for beginner teachers of reading, and this is not easily acquired theoretically or practically. Learning to teach as with learning to talk and to read is situated learning. Therefore, training needs to be grounded in classroom practice.

The Context

In Ghana, basic school teachers (from kindergarten to junior high school) are trained mainly in a three-year post-secondary diploma-awarding Colleges of Education (CoEs), and some in two teacher training universities. All the colleges run residential programmes in which trainees spend the first two years in college to study subject matter and methodology courses, and are attached to schools to have a year-long teaching practice. Some CoEs are mandated to train generalist teachers whilst others run specialist programmes in Mathematics/Science, Technical Skills, Early Childhood Education and French. At the time of the study, there were 46 CoEs: 38 publicly-funded with at least one located in each administrative/educational region of the country and eight privately-run. Seven of the 38 public CoEs train female teachers only, one is an all-male technical-oriented college, and the remaining 30 are co-educational.

Research Methodology

A survey design with the mixed method approach was used, involving questionnaires, observation of lessons of teacher trainees and forensic interviews. This was done for the purpose of collecting broad-based data to address the main issues to be investigated in the study, for triangulation and for obtaining a deeper understanding of how trainees developed their knowledge and understanding of teaching early grade reading. Trainees undergoing one-year practicum after their two years of residential course work in college were recruited for the study.

A multi-stage sampling method was used to select the participants. Firstly, the cluster sampling approach was used to zone the 38 public colleges into three: the northern, middle and southern zones. For reasons of proximity and convenience, the middle and southern zones were selected at the first stage of the sampling process. Secondly, each zone was categorized according to two levels of settlement status (urban and rural) to select a college in each status. Rural colleges are those located in villages or small towns where: (a) the dominant occupation is small-scale farming or fishing, (b) there are few white-collar jobs or none at all, (c) there is poor road network, (d) there is lack of social amenities and (e) there are no vibrant commercial activities. On the other hand, urban colleges are those in big towns and cities with a higher level of social development than the smaller towns and villages.

On this basis, four colleges were sampled from the middle and southern zones, with one rural and one urban college from each zone. Also, sampling was done as far as possible to include colleges with both generalist and specialist programmes in each zone.

The school data was collected from three levels of settlement status, namely rural, peri-urban and urban. Peri-urban areas are rural-urban transition zones where rural and urban uses of land mix. Two basic schools each in rural, urban and peri-urban areas totalling 24. These were purposively sampled from the four sampled colleges' districts, where the trainees were undertaking teaching practice. All teacher trainees (totalling 156) who had taught reading in any of the lower primary classes (primary 1-3) before were selected to respond to questionnaires. Of that number, 36 were sampled randomly for lesson observation and forensic interviews.

Instruments

The quantitative data was obtained from a questionnaire developed from one that had been used successfully with teacher-trainees in an earlier study (Akyeampong, 2003). It demanded relatively closed responses as well as straightforward questions. It also included a series of scenarios that are likely to be encountered in teaching in early grades. Respondents were required to select responses to the scenarios which describe the most appropriate approach to teaching a particular concept or skill in reading. These responses gave access to the trainees' pedagogical content knowledge and likely pedagogical practice in reading.

Qualitative data was obtained from an observation instrument which had been validated by two principal investigators of the research group that undertook the study. The instrument looked for the use of the following in trainees' lessons: (a) the method for teaching reading, (b) procedure of the lessons in terms of the sequence of learning the content and progression within the lesson (c) teacher-led teaching/explanation (d) use of Teaching and Learning Materials (TLMs) and (e) students' engagement in group/individual work. Finally, a semi-structured interview schedule was used to ask questions around details of practice, sequencing of tasks, use of resources and progression within the lesson. Again, this form of interview was calculated to give a greater understanding of what trainees actually know and do rather than directly inferring from observation. The instruments were piloted in two schools with similar characteristics as the sampled sites, after which some modifications were made, mainly in respect of changes in terminologies to reflect the Ghanaian context.

Procedure for Data Collection

Appointments were made with school heads and teacher trainees on teaching practice for visits and data collection. On the scheduled dates, questionnaires were administered first to all the trainees at each site at once by a team of researchers and retrieved before lesson observation sessions were scheduled. This procedure was meant to aid the researchers to relate the information obtained from the questionnaires to the trainees' practice.

In all, thirty-six lessons were observed and video-recorded. Two lessons were observed each day before the forensic interviews were conducted. It must be noted however that in the lesson observations, the lessons only served as a platform for interrogation of how the trainees had learnt to teach rather than seeing them as typical of their teaching. The data collection were completed between March and June 2010.

Data Analysis

The qualitative data interviews were transcribed and imported into the Nvivo 8 qualitative data analysis software along with other appropriate texts such as summaries of observations. The interview and observation data were thus coded and sorted using a system of hierarchical categories, focusing on knowledge, understanding and practice. This enabled patterns to be identified and queries to be run. The quantitative data were analyzed using STATA software, which enabled large data sets to be analysed and to provide relevant tables and graphs.

Results and Discussion

Personal Data of Teacher Trainees

There were more male than female trainees in all the schools where data was collected. Overall, 118 (76%) males and 38 (24%) females participated in the study. Majority of them (120: 76.92%) were between the ages of 21 and 25. Twenty-one percent (21%) was between 26 and 30 years and none was over 30 years, which can be understood since most trainees enter the college of education after senior high school. Few of them (28: 18%) had had experience in teaching lower primary classes before entering teacher training.

As part of their background information, the trainees were asked to indicate where they developed their best understanding of teaching lower primary reading. About 79% of them claimed they developed in the college (see Table 1).

Table 1: Where trainees developed their best understanding of teaching reading

Items	Freq.	%
In-Service training	2	1.29
Other teachers	15	9.68
Training College	122	78.71
Working in Schools	16	10.32
Off-campus teaching practice	1	0.65
Total	156	100.00

Knowledge and Understanding of Reading

What Reading means to Teacher Trainees

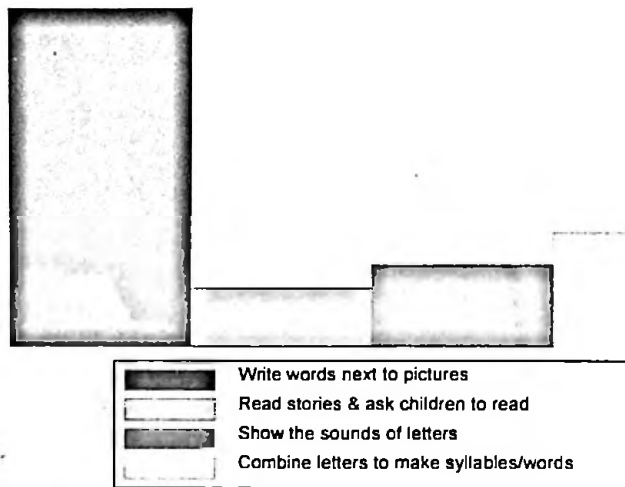
Through the interviews, the trainees expressed their understanding of reading in three main ways. For the first group, reading meant the ability to decode print, with emphasis on word recognition. For the second group, reading meant the ability to demonstrate comprehension of print, especially through the explanation of key words or the main ideas in the passage (either in English or the local language). Thirdly, reading was described as the ability to answer questions on the passage. They appeared to be silent on the alphabetic, phonological awareness/phonics elements of reading and fluency although some of their lessons had elements of fluency. Thus, they demonstrated knowledge and understanding of two (vocabulary and comprehension) out of the five reading skills (phonological awareness, phonics and fluency included) espoused by the National Reading Panel (NICHD, 2000).

Perspectives on how Reading should be Taught: Methods for Teaching Reading

Information from the trainees' questionnaire and interviews were used to describe their knowledge and understanding of how reading should be taught. In the questionnaire, when asked about the best way to help children in early grades to read, two main methods for teaching reading were listed: a variant of the look-and-say method and phonics, as Table 2 shows.

Table 2: The best approach to use to teach early grade reading

Item	%
The best way to help children in lower primary to read is to look at pictures and read whole words or sentences	94
The best way to help children in lower primary to read is to teach them sounds or syllables in words	96
The best way to help children in lower primary to read is to repeat words after the teacher	97

Approach used to teach early reading**Figure 1. Approach used to teach early reading**

Interestingly, the trainees placed more emphasis on the look-and-say (also known as the 'rapid automatic naming of words'), which involves writing words next to pictures (Figure 1) and pupils' repetition of words after the teacher (97%), followed by the syllabic or phonic method (96%) as shown in Table 2. In the interviews, they explained that it was the most suitable for teaching reading at the lower primary. Nevertheless, the variant of the look-

and-say approach which was rated highly has the tendency to encourage rote learning and drilling without particular focus on teaching the shape of whole words or individual sounds, though it is needed to enhance visual and phonological awareness.

In the interviews, only one of the trainees (out of 36) could describe clearly all the methods for teaching reading which were stated in the college syllabus. While the syllabus listed the phonics, the 'look-and-say', the syllabic and a combination of these, the trainees mentioned the question and answer, discussion, activity method, picture method, role-play and pupil-centred methods. Some of them admitted that though they were taught at college, they had forgotten them.

Stages of the Reading Lesson

Generally, all the teacher trainees demonstrated their knowledge of the procedure for teaching reading by describing three sequential steps. These were (i) the preliminary, (ii) reading and (iii) the post-reading stages. They also described the activities that should be used in each stage. Activities for the first stage were revision of Relevant Previous Knowledge (RPK), teaching and drilling of key words, prediction activities through picture description or the title of the text.

At the reading stage, the activities they listed included silent reading, the teacher's model reading, model reading by a good reader and reading aloud (chorus/recitation) by the whole class, in rows and individually, irrespective of the class. The purpose of the reading aloud and silent reading exercises was, according to them, to develop fluency. For reading aloud, some of the trainees explained that it was helpful for pupils with specific pronunciation difficulties to learn from their colleagues. This explanation seemed oblivious to whether the teacher heard them read correctly or not.

According to them, the last stage of the lesson was for checking comprehension. The only comprehension strategy they seemed to know and talked about, however was answering the teacher's questions based on the text.

Trainees' Teaching Practices

Methods Employed in Reading Lessons

Majority of the trainees preferred the look-and-say method, as has been indicated earlier. Some acknowledged that it was the most commonly used method:

It is more used than this phonic one; even I have not seen the use of this phonic method here.

When I was in the primary school, the only method the teacher used was look-and-say. (male trainee)

Those who used this approach mostly tended to spend a lot of time on vocabulary drills and reading aloud after the teacher. They also devoted much time to explaining key words, usually through pictures and in the local language, asking for pupils' explanation of the key words or passage (through the local language) and forming sentences with them. A few others used demonstration and word associations such as synonyms or antonyms. In such lessons, more time was devoted to the last stage of the lesson where pupils were made to answer comprehension questions. Very few trainees (e.g. only one out of 9 observed in one college district) used the phonic method and combined it with the look-and-say two methods.

In their 'look-and-say' lessons, the trainees showed the word, sentence or reading passage either on the chalkboard or cardboard, pronounced or read them out and asked pupils to repeat several times, quite mindlessly. In effect, the teacher 'trains the pupil to look at the graphic representation (form) of print and then say the word' (GES, 204: 193) without breaking it into smaller bits. In actual fact, the Ghana Education Service (GES, 2004) textbook on Methods of Teaching English for the UTDBE programme suggests that pupils should first be introduced to formal reading through 'the Look-and-Say Method' (p. 203) because among other things, it makes reading easier for pupils with the teacher's model.

The GES textbook also acknowledges that with the 'look-and-say' method, pupils cannot read new lessons by themselves and as such, cannot become independent readers. It therefore recommends that the phonic method be used to complement and overcome the shortcomings of the 'look-and-say' method. Nevertheless, the trainees stuck to 'look-and-say, even when their pupils could not recognise words and read after a number of repeated drills. In one lesson in primary 3 for example, when pupils had difficulty reading, the teacher still continued with the chorus reading/recitation of the text throughout the lesson. At the end, only 3 (probably the best) of the 69 pupils in the class who were invited all the time to read could read. When asked why she thought the children could not read, she located the problem with the children and not with her method:

Not most of them can read. I think you observed it. They cannot read so unless I use the reading aloud. I read and they read after me. I allow someone to read and they read

after the person. They are very slow learners and if you don't take care, you wouldn't mind them. Look at the way they were reading. If it wasn't you here, I will use the cane. (female trainee)

Her reference to the cane as a way to motivate progress in reading is revealing, but it also showed a lack of knowledge about the complexities of teaching and learning a foreign language, which is a qualitatively more challenging learning experience than learning to read in one's first language (Alidou et al., 2006; Opoku-Amankwa 2009). It also showed a lack of deep reflection on why her approach was not working and what alternatives would provide a solution. According to this teacher, the 'look-and-say' method was the most familiar and one used by long-serving teachers in her school, and although she claimed knowledge of phonics she had never used it in practice.

In a number of the lesson observations, sometimes pupils were unable to read fluently and confidently which teachers interpreted not as a failure of their methods, but a 'problem' with the child. There were several instances where pupils were unable to identify words on flash cards after the teacher had drilled and asked them to match word cards with words on the board and read through all the key words in the passage fluently.

Only one teacher used the phonic method in combination with the look-and-say to teach vocabulary to class 2, where after introducing the word-attack strategy, many pupils used the phonological awareness to attempt reading the text. Few lessons employed word-attack strategies.

In the interviews, the trainees singled out the phonics approach to teaching as the most challenging and explained that this was because colleges did not give this as much attention, as they did with other methods.

The pronunciation of the sounds and the letters is very difficult. You can see some letters having different sounds but when you are pronouncing them it will be also different. So that confuses you the teacher. Even in college it was difficult and yet they did not have enough lessons on it (male trainee).

The importance of both the phonological and word identification approach in early reading has been highlighted in the literature (Bentolila & Germain, 2005; Trudell & Schroeder, 2007), especially as a remediation strategy for struggling readers of a second language (Slavin, Lake, Davis & Madden, 2009). In his comprehensive review of studies that investigate how children learn to read in grade 1 (in the US), Stanovich (1986) reveals that phonemic awareness (and phonics blending) is the most important predictor

of early reading ability, more than vocabulary and oral comprehension. Indeed, Slavin et al. (2009) reveal that in the UK and US, phonics instruction constitutes an important component of the early reading programme, apparently because of the evidence in the literature that explicit, systematic phonics instruction has been used widely over a long period of time with positive results, and has proven effective with children of different ages, abilities, and socio-economic backgrounds (NICHD, 2000).

Also, in multilingual African classrooms, phonics instruction is recommended in the early stages of literacy acquisition, especially when the regularity of phoneme-grapheme correspondence helps the reader to recognise or decode new words (Trudell & Schroeder, 2007). It is rather worrying that although the Ghanaian teacher trainees in this study knew about the role of phonics and phonemes, in practice, they did not consider it even as a remediation strategy. It seems it is not given the focused attention it deserves in training, leading to difficulties in actually applying the method especially in distinguishing certain sounds (e.g. /k/ and /c/) and linking them to pronunciation.

Strategies used to Teach Reading

In practice, all the trainees adhered rigidly to the three stages of the lesson and their activities. Most of them tried to get this sequence right. Very few prepared pictures on cardboards and used sentence cards together with word cards; some used none at all. The word cards were however, ineffectively used, without allowing the pupils to interact with them. They simply flashed them while they pronounced the words, and put them aside without going back to them throughout the rest of the lesson. Also, in a few cases (five out of thirty-six), teachers engaged the children in activities by demonstrating how to join cut-out word cards to form sentences, after which the pupils took turns to do the same and to read them aloud to the class after the teacher's model.

Overall, most lessons adopted the whole-class chorus reading approach where there was much emphasis on rote reading, even though it is known to prevent vocabulary recognition. This produced what Malatesha (2005) calls the 'Matthew' effect, whereby students with better vocabulary knowledge read more often and in the process improve their comprehension while those with poor vocabulary knowledge read less. Although they believed that group reading enabled good readers to help the weak and shy ones to read, few trainees applied this in their lessons, claiming it was time-consuming.

At the last stage of reading lessons, the teacher trainees used two questions and in a few instances, summary/explanation of the text) out of the even strategies which are known to help pupils make sense of a text comprehension strategies). This is contrary to what research suggests about the use of multiple strategies (including but not limited to summarising, generating questions of the text, using diagrams, maps and pictures, etc.) to enhance text comprehension (NICHHD, 2000).

On the whole, trainees over-relied on fixed teaching procedures as their main concern was to get the procedures right and seemed less aware or concerned about whether it actually helped pupils develop skills in reading. In the process, they employed knowledge transmission (e.g. teaching new words, reading to the hearing of the pupils, explaining the passage to them, etc.), and failed to help pupils who were clearly having difficulties with reading. They could not also use a range of techniques in their lessons. It fits Ehri's (2002) description of teachers who often follow procedures set down in manuals rather than having a wide knowledge of varying processes and skills that readers need to acquire in both theory and practice.

Conclusion

The teacher trainees exhibited limited knowledge base of both the theory and practice of teaching reading, particularly through the phonic approach. As a result, they lacked the motivation to use it due to the challenges they might encounter, as too many words deviate from the general rule of usage. Therefore, the phonic approach seemed to be under-utilised, although it plays a more important role in helping children from poorer background develop early reading ability than reliance on the whole word (i.e. look-and-say).

The trainees did not demonstrate adequate knowledge and understanding of how to apply a variety of teaching strategies to meet the needs of pupils from different socio-economic backgrounds, and about the fact that a single approach does not yield results for all children and indeed, all contexts. That might explain why they failed to employ a mix of different methods and strategies. Their presentation therefore, suggested that they feel simply possessing knowledge of methods, a laid down set of teaching procedures, teaching and learning materials and a convenient selection of certain strategies were all they needed to teach reading effectively. Such simplistic understandings underestimate the challenges and difficulties of teaching early grade reading.

Their knowledge and understanding of teaching early grade reading rarely reflected what they actually did in the classrooms, and none of what

they expressed knowledge about was applied to any great effect. In seeking to get the teaching sequence right, they over-emphasised procedural knowledge and although they knew for example that TLMs are central to developing conceptual understanding, in practice, they presented them ritualistically.

The transmission method which puts the teacher at the centre of the lesson was the trainees' main mode of lesson delivery: teaching new words, using the TLMs, reading to the hearing of the pupils and explaining the passage to them. Teaching of reading was mostly from the perspective of the teacher (focusing on how to 'deliver' well) and not the child. As such, the pupils' challenges with reading (probably as a result of the transmission and recitation methods) were interpreted as general problems with children and not about the teaching methods. The practice of reflection was not observed in the teacher trainees' practice, neither was there a critical analysis of why approaches did not yield results, and the ability to adapt teaching to suit actual situations.

It is understandable that fluency can be developed through real texts visible to all students, read aloud many times by the teacher or students (Dombey, 2011). Nevertheless, that is just one of the five reading elements that should be coordinated simultaneously, so that the growth of one area supports the others (Stanovich, 1986). Therefore, a focus on only one reading skill over and above another will weaken reading development (NICHHD, 2000). Given this understanding, there is the tendency that over a period of time, the trainees' over emphasis on reading aloud which ended up being a recitation without word recognition, and their use of only one comprehension strategy (asking questions on the text) will weaken the reading development of their early graders.

Evidently, the fact that one possesses theoretical and/or practical knowledge about language teaching does not in itself, guarantee that one will necessarily be able to make children read. Getting children to read a second language is a complex task, and its complexities are well articulated in the literature (Alidou *et al.*, 2006; Trudell & Schroeder, 2007; Opoku-Amankwa, 2009).

Recommendations

The gaps in teacher trainees' knowledge, understanding and teaching of reading have implications for the pre-service and In-Service Education and Training (INSET) programmes. The pre-service programme especially should make trainees appreciate better how reading for meaning is as important as decoding in early grade teaching. They should also know and use a range of

Methods for teaching decoding such as analytical and synthetic phonics, syllabic, syntactic, whole word, text or visual approaches. It should expose trainees to a range of approaches to comprehension like oral storytelling, getting pupils to ask questions about the text or produce summaries, drawing pictures or diagrams and relating a text to pupils' own experience (NICHHD, 2000). It is also important to increase trainees' awareness of expectations in the primary school curriculum for young children's reading in the early grades, for instance, that pupils should be able to read a short story or paragraph fluently and with understanding by the end of grade three.

It is suggested that the implementation of all the components of the pre-service programme should be monitored to ensure that it places more emphasis on effective study of practice. In such a practice-based curriculum, college lessons would be linked to the practical requirements of primary school teaching, thus, exposing trainees to the actual primary school curriculum and school context. This should ensure the critical study of best teaching practices of experienced teachers observed during practicum, visits to schools where good practices are known to be exhibited or through videos of lessons. Also, reading behaviours of pupils in real schools and examples of their work would help to identify their conceptions and misconceptions. These can then be brought into the college methodology classrooms for analysis. This way, trainees' existing knowledge and beliefs about reading can be challenged and altered through explicit examples, tutor modelling the pedagogic strategies and opportunities for extensive and guided practice to develop pedagogical content knowledge.

Similarly, during INSET programmes, teachers can be shown videos of best practices of early grade reading instruction. This will also serve to train experienced teachers to mentor struggling teacher trainees in real classrooms during teaching practice. With time, the trainees would have enough good examples to draw from and mentor others, thereby, reproducing competent teachers to do the same.

The practicum as a component of the pre-service programme is faced with a big challenge. In many schools, the practicum period is the time the experienced teachers give themselves a break, leaving the trainees without mentors. This practice must be checked. Trainees should be supported and mentored by experienced teachers to enable them to observe and use good practices. Experienced teachers and mentors should therefore be trained and supported by college tutors to provide instructional support to meet this need and to demonstrate good examples to trainee teachers.

Mentors should support trainees in specific ways that will promote children's reading, such as (a) how to monitor children's fluency in reading, (b) how to identify those who need assistance and how to use a variety of strategies or differentiated tasks to suit different learners and contexts (c) introducing new methodologies that move away from rote learning/reading and teacher-centred procedures to activity, discovery and child-centred procedures, (d) demonstrating how to use phonics instruction and other word-attack strategies to develop children's skill of independent reading.

The findings of the study also suggest that college tutors may need retraining on specific areas of reading identified in this study, and on current teaching methodologies. This should enable them to understand the school context well enough to facilitate trainees' experience of this, and to be able to support mentors to play their roles effectively.

The pre-service programme bears the biggest responsibility for producing teachers who are capable of translating knowledge into effective practice well enough to make children literate. Since the trainees develop their best understanding of teaching early grade reading from the college, it is important that improvement begins from there.

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