Pedagogical Reasoning in Teacher Education: The Unexplored Route to Intellectual Development – A Study of the Practicum in Kenya

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Abstract
In this paper, I argue that when teacher education (TE) only aims at student teachers’ mastery of procedural knowledge, the envisaged intellectual development that teachers need so that they can, in turn, facilitate similar development in their learners cannot be realised. My argument is based on a study I conducted in Kenya, in which I investigated what English language student teachers learn during the practicum and the issues that influence their learning. Generally, the data showed that they mainly acquired procedural knowledge but failed to develop pedagogical reasoning, which - arguably - ought to be the main goal of TE.

Keywords: Reasoning, education, learning, practicum, development

1. Introduction
Education is an enterprise that is associated with many aspects of social, cultural, economic and political development. That is why in many countries all over the world, a lot of resources are committed to different sectors of education. (Anderson et al, 2001). Indeed, in Africa, the World Bank and many other development agencies have invested heavily in primary, secondary and even higher education while several countries spend over fifty percent of their national budgets on education (Vavrus, 2009; Hardman et al., 2009). Teacher education is increasingly being recognised as a key sector of education that has a major impact on different aspects of development (Richards, 2008). This is because teachers normally have a major influence on the development of knowledge, skills and attitudes of their learners both when the learners are in school and even long after they have left school (Freeman, 2001).

Consequently, in many countries in Africa, Kenya included, there is increasing attention to reform of the teacher education sector so that student teachers may be assisted to acquire the necessary knowledge that would in turn enable them to exercise appropriate influence on their learners (Digolo, 2006; Vavrus, 2009). Yet, in Africa in general and Kenya in particular, there does not exist sufficient empirical information upon which such reform of the TE sector could be based. The need for more research in this important sector of education influenced the focus of my study. In particular, I identified the practicum (called teaching practice (TP) in some contexts) as a key aspect of teacher education, when the contribution of coursework at university to student teachers’ learning may be discernible through their classroom practice.

Generally, there is consensus in teacher education literature that the practicum is a very important stage of teacher learning. For example, Farrell (2008) states that “the practicum has come to be recognized as one of the most important aspects of a learner teacher’s education during their teaching training programme” (p.226). Consequently, in my study, I analysed the practice of English language student teachers during the practicum to find out what they learn from their experiences. In this paper, I discuss the question of whether the student teacher learning during the practicum could be said to have prepared them well enough to develop appropriate pedagogical reasoning that would enable them to “promote individual intellectual development of learners” (KIE, 2002: iv) and facilitate the learners ability to participate in national development in different ways, as stated in the national goals of education in Kenya. Before I delve deep into the discussion, I give a short description of the Kenyan context, the methodology and the findings of the study.

2. Context
The Republic of Kenya is an independent country in East Africa with a population of about forty million people of different ethnic backgrounds. Kenya follows the 8-4-4 system of Education, representing primary, secondary and university education, respectively. English is the medium of instruction in schools and the official language in the country. The national goals of education in the country are outlined by the Kenya Institute of Education (KIE, 2002: vi) as being to achieve the following:

- promote individual intellectual development and self fulfilment
- foster nationalism, patriotism and promote national unity
- promote the social, economic, technological and industrial needs for national development,
- promote sound moral and religious values
- promote social equality and responsibility
- promote respect for and development of Kenya’s rich and varied cultures
• promote international consciousness and foster positive attitudes towards other nations, and,
• promote positive attitudes towards good health and environmental protection

It is noticeable, from these goals (all the italics are mine) that there is emphasis on development both at personal and national level. That is, education is expected to enable learners at all levels to develop intellectually while also preparing them for effective participation in different aspects of national development. The Kenya government recognises that teachers are very crucial for the achievement of these goals. Accordingly, the objectives of Teacher Education have recently been revised to emphasise the need for teacher education institutions to ensure that their graduates “develop deep understanding of pedagogy which will enable them to diagnose and develop the educational competencies of their learners” (MoE, 2005: 10) (my italics).

The need to reform the teacher education sector to enhance contributions of teachers to development has also been stated by several scholars in the country. For example, Kafu (2006:11) argues that “since the mid-seventies, [Kenyan] teacher education curriculum has remained narrow and rigid in nature and scope … There has been no attempt to make it responsive to the emerging trends in the society in general and education in particular.” Digolo (2006) also recommends that “the training of teachers in Kenya needs a scrutiny” so that in addition to equipping student teachers with the necessary knowledge and skills for their work, they also make it possible for a student teacher to “develop reasoning (intellectual) skills, values and ability to create and recreate new working habits and values for changing lives in a dynamic social environment” (Digolo, 2006: xxv).

The Initial Teacher Education (ITE) programmes in Kenya for secondary school teachers, takes four years with a practicum or teaching practice (TP) component which usually lasts for one school term of between ten and twelve weeks. Student teachers are placed on TP “so that they may achieve growth in knowledge, skills and attitudes as required by the teaching profession for which they are being prepared” (Teaching Practice Guide, 1990: iii). From the goals of education stated above, it is arguable that the teaching profession student teachers on a practicum are being prepared for entails not only preparing learners to gain knowledge in the subjects in the school curriculum but also facilitating intellectual development of those learners as well as their own to enable them, in turn, participate actively in the other aspects of national development stated in the goals of education. Therefore, in this study, I analysed the practice of the student teachers with the aim of finding out the extent to which they developed intellectually as stated in the goals and hence the extent to which they could facilitate intellectual development of their learners.

3. Methodology
This study was a qualitative case study of one university in Kenya involving seventeen participants: six student teachers, six teacher educators and five cooperating teachers involved in TP in five different schools in Safari Zone (note actual name) in Kenya. I used semi-structured interviews, observations and documents to generate data from the participants over a whole school term lasting three months. I interviewed each student teacher three times, at the beginning, in the middle and at the end of the TP. I observed each student teacher’s lessons four times in different classes. I also interviewed the cooperating teachers and educators. All interviews lasted about one hour and were audio-recorded. The documents I analysed included the student teachers’ lesson plans, tests and exercises given to learners, the English language syllabus for secondary schools, textbooks, TP guide by the university and the comments by teacher educators during supervision visits. I transcribed the data and analysed them thematically (Braun & Clarke, 2006; Dörnyei, 2007).

Trustworthiness was ensured through triangulation, chain of evidence, and thick description (Creswell, 2007; Yin, 2009). I ensured that the relevant ethical issues such as informed consent, confidentiality, anonymity and avoidance of harm were taken into consideration (Hammersley & Atkinson, 2007). The study focused on English language student teachers because that was my main interest; nevertheless, their experiences are - to a large extent - representative of the experiences of all student teachers in Kenya because the practicum structure is very similar in all the universities. Indeed, my literature review (e.g. Avalos, 2000; Vavrus, 2009) and discussion with colleagues confirmed that teacher education curricula and practica are generally very similar in most Anglophone African countries.

4. Findings and Discussion
Generally, the student teachers faced numerous challenges during their TP in all the aspects of their teaching, including planning, actual teaching in class and testing. Nevertheless, the data suggest that the student teachers (STs) made progress in learning certain aspects of teaching, as summarised in Table 1 below.
The concept of pedagogical reasoning refers to the ability to engage in thinking about the different aspects of ELT, especially on the relationship between procedures and principles of teaching. It involves seeking to understand the reasons for doing things and includes decision making and problem solving skills that teachers call upon when they teach. Pedagogical reasoning arguably brings together all the aspects of the knowledge base for ELTE (namely knowledge of theories, subject matter, aims of ELT, context of ELT, the how of actual teaching in the classroom) and the relationships between them (Johnson, 1999; Kumaravadivelu, 2006; Maclellan, 2004; Richards, 1998).

4.1. Gaps in pedagogical reasoning
The concept of pedagogical reasoning refers to the ability to engage in thinking about the different aspects of ELT, especially on the relationship between procedures and principles of teaching. It involves seeking to understand the reasons for doing things and includes decision making and problem solving skills that teachers call upon when they teach. Pedagogical reasoning arguably brings together all the aspects of the knowledge base for ELTE (namely knowledge of theories, subject matter, aims of ELT, context of ELT, the how of actual teaching in the classroom) and the relationships between them (Johnson, 1999; Kumaravadivelu, 2006; Maclellan, 2004; Richards, 1998).
The key tenet of pedagogical reasoning (PR) is asking the why questions about teaching; that is, thinking about the reasons for carrying out procedures. Through opportunities during TP to reason about teaching in this manner, a student teacher may develop in understanding practice and could adjust attitudes and procedures as appropriate. They may also learn to facilitate intellectual development of their learners, beyond the mere mastery of subject matter. As Malderez & Wedell argue “if a teacher does something simply because they are expected to…they are likely to do it in a very different and probably less effective way from another teacher who may have chosen to do the same thing because they believe it will, at that moment and in that context, help the learning of their pupils” (2007:13).

Therefore, pedagogical reasoning, in my view, is important both as a goal and a means of teacher learning during the practicum. That is, the practicum needs to develop pedagogical reasoning in student teachers and the appropriate way to do this is by involving them in pedagogical reasoning of their practice. As Johnson (1999) explains “if we recognise teaching as a highly situated and interpretive activity, then knowing what to do in any classroom hinges on the robustness of a teacher’s reasoning” (p.10). Richards (1998) also emphasises that “teacher education needs to engage teachers not merely in the mastery of rules of practice but in an exploration of the knowledge, beliefs, attitudes and thinking that inform such practice” (p.xiv). I acknowledge that it is perhaps not possible to completely develop pedagogical reasoning of student teachers in a practicum context even with the best of support and resources. Nevertheless, the session ought to enable student teachers to have a firm beginning in that direction by providing appropriate opportunities (e.g. Crookes, 2003; Johnson, 1999; Macelllan, 2004; Richards, 1998). As I stated earlier, there was evidence in my study that the student teachers did not achieve any significant pedagogical reasoning in ELT from their practicum experiences. Based on the explanation above, I can identify gaps in development of pedagogical reasoning as indicated in Table 2.

<table>
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<th>Table 2. Summary of indicators of gaps in pedagogical reasoning in ELT during TP</th>
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<td>• STs were not supported to reason about the communicative method and integrated approach recommended for ELT in Kenya; hence, could not implement it successfully</td>
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<td>• STs generally showed a lack of thorough understanding of the EL subject matter they were meant to teach, especially the ability to think about it from the learners’ perspectives</td>
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<td>• STs were not guided to understand the aims of ELT and how these could relate to their lessons; they perceived the main aim as passing EL exams rather than as developing learners’ communicative ability</td>
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<td>• ELT was mainly done through reading aloud of the textbooks and the STs followed guidelines in teacher’s copies even where they were inappropriate, clearly without understanding the principles on which the texts were based; most of them said they taught that way as it was how they were taught</td>
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<td>• STs also had difficulties dealing with the different competencies in EL in their classes and some reported not paying attention to weak learners because they could not think of how to make them improve. Similarly, most of them admitted using teaching aids even when they were not necessary</td>
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<td>• STs set EL tests directly from textbooks, without understanding their appropriacy to learners and could not explain answers during revision. They also admitted a reluctance to be honest in their self-evaluation of ELT as they feared teacher educators might grade them on that basis; most supervisors did not comment on self-evaluation</td>
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<td>• The STs’ ELT was mainly influenced by desire to please supervisors and not based on what they thought was the appropriate way to teach</td>
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By identifying such gaps in development of pedagogical reasoning, my study enhances our understanding in the field of some of the issues that TE institutions may need to pay attention to during the practicum, which perhaps have been previously unattended to in contexts such as Kenya. This kind of analysis of what student teachers learn during TE in general or TP in particular, and the gaps in their learning has not featured much in previous studies in the field, especially in Africa.

4.2. Issues that hindered development of pedagogical reasoning during TP

The study revealed a number of issues that could have hindered the development of pedagogical reasoning among the student teachers during TP. Two such issues, that are relevant to the theme of this paper, are the lack of a clear definition of parameters of practice and inappropriate conceptualisation of support (in terms of supervision and collaboration) during the practicum. Next, I discuss these two issues briefly.

4.2.1. Definition of the parameters of practice during TP

By parameters, I mean “a limit or boundary which defines the scope of a particular process or activity” (Concise Oxford English Dictionary, 2006: 1038). I am particularly concerned here with the definition of parameters of practice by both the university and the schools. Literature on TP suggests many possible, sometimes even conflicting, parameters of practice during TP. Such parameters include the student teacher (ST) as an apprentice or intern to the master teacher (Stones & Morris, 1972), the ST as partial teacher (Derrick & Dicks, 2005; Richards, 1998); or the ST as a full member of the teaching staff taking part in all the activities of the school department.
practice are not clearly defined every student teacher may be exposed to experiences that are significant pedagogical reasoning. Consequently, the STs taught what one of them referred to as pedagogical procedures. On the other hand, too much focus on assessment seemed to constrain the development of teacher learning especially when there is only a single practicum and this role is expected from the beginning.

Another issue regarding the parameters of practice was that even within the full teacher status, there was inconsistency (in the five different schools) in several aspects of practice for the student teachers in terms of induction, allocation of classes, and assignment of extra duties. While I appreciate that it was perhaps inevitable that every context would be different from the other, my study illustrates the point that where parameters of practice are not clearly defined every student teacher may be exposed to experiences that are significantly different from the others. For example, some student teachers in my study taught the first two classes while others taught the two senior classes at the secondary school level. Clearly these student teachers faced different challenges with regard to the topics to be taught and levels of learners; hence different opportunities to develop pedagogical reasoning.

I acknowledge that clear definition of parameters of practice, consistency in allocation of duties or lighter workload on their own would not have led to development of pedagogical reasoning. However, the point is that the student teachers’ practice was limited to classroom teaching only. They were not involved in other activities that could have facilitated the development of pedagogical reasoning.

4.2.2. Conceptualisation of support during the practicum

My study shows fundamental influences on teacher learning related to the way pedagogical support was conceptualised by the participants during the practicum. Two main aspects of that support which I discuss below are supervision and collaboration between student teachers and cooperating teachers, starting with the former.

Conceptualisation of supervision

Supervision was perhaps the most powerful influence on the STs’ practices especially because the teacher educators had to assess and grade them and the grades would in turn determine whether they would pass their Bachelors in Education (B.Ed) degree course or not. The data shows that supervision was conceptualised by the teacher educators mainly as assessment. It is possible to identify some contributions of the assessment-focused supervision to teacher learning. First, it kept the STs on task; that is, as long as the STs expected to be supervised, they endeavoured to prepare thoroughly for lessons and to teach at their best, especially in terms of what they thought supervisors would want to see.

Indeed when they realised that there would be no more supervision, some of them became rather relaxed; for example, two of them repeated previous lesson plans while others stopped writing lesson plans all together. Secondly, the supervisors through their comments guided the STs on how to improve on the general pedagogical procedures. On the other hand, too much focus on assessment seemed to constrain the development of pedagogical reasoning because STs mainly concentrated on using sets of procedures that they believed would please the supervisors. Consequently, the STs taught what one of them referred to as plastic lessons. By this they meant that they did not necessarily aim at learning to teach in a way that might have been effective in enabling the learners to understand and improve in English language or to develop their learners’ intellectual capacity, but aimed at pleasing the supervisors. In this way, supervision made student teachers dependent on what might earn them better grades.

That kind of dependency has been recognised in TE literature as unsupportive of student teacher learning because it gives the impression that the supervisors’ views about teaching are the best regardless of the context; hence, it constrains the envisaged development of deep understanding of pedagogy among the STs (Bailey, 2006; Freeman, 1990). For example, Freeman argues that “such a doctrinaire approach can lead to formulaic teaching…where the student teacher comes to depend on the teacher educator’s standards and criteria in a did I do it right? relationship (p.107). My study gives evidence that assessment-focused supervision may lead to formulaic teaching in the manner explained above.

On this issue, my study supports some previous studies in TE that have also found out that supervision that is assessment-focused, directive and evaluative may constrain teacher learning, during the practicum (e.g. Farrell, 2007; Tang, 2003). For example, Farrell (2007) reports a case study of one English language student teacher in Singapore who failed her practicum, and had to repeat with him as the supervisor. He reports that one of the reasons the ST gave for her failure was because “she was too nervous when the supervisor and cooperating teachers (CTs) observed her teaching” (p.195). As in Farrell’s study, the STs in my study also stated that they were nervous when they expected supervisors and always tried to conform to what they thought supervisors
expected.

**Conceptualisation of collaboration**

The data revealed that collaboration between the STs and cooperating teachers (CTs) in my study was conceptualised as *brief induction - surrender of classes then some intermittent consultation on a needs basis*. Clearly, this approach to collaboration was not consistent with the aims of the practicum as stated in Kenya and understood in the field of TE generally. The main role of cooperating teachers in TP is considered in the literature to be to offer professional support in terms of assisting STs to settle into the school and to cope with problems that may arise in connection with the syllabus, planning or working with learners (e.g. Bodóczsky & Malderez, 1996; Farrell, 2008).

They are also expected to facilitate a mutual reflection on experiences that may enhance the development of pedagogical reasoning for both themselves and the STs (Intrator, 2006; Tang, 2003). They ought to act as role models to the STs by being exemplary in their planning, pedagogy and assessment of the learners (Derricks & Dicks, 2005). Thus, CTs are considered to be very influential in a student teacher’s practice during the practicum as they spend a reasonably longer time with the STs than educators (Farrell, 2008). These roles of the CTs are also assumed by the university I studied (as stated by the teacher educators during interviews); that is, they expected CTs to offer pedagogical support to the STs. In spite of this understanding on the role of CTs, in my study, their support of the STs was limited to very basic induction involving introducing them to learners, providing basic resources and showing them which units of the textbook they were expected to cover.

This is not to suggest that there was the student teachers did not learn anything from the CTs. Indeed, some CTs generally offered important guidance on the procedures of teaching. Nevertheless, the guidance was not consistent across the placement schools. Also, some of the CTs were not supportive at all and more importantly, some of them added pressure to the STs by insisting that they had to cover large units of the textbook so as to complete the syllabus. Indeed, some of the CTs were not good role models as they influenced STs negatively. For example, one student teacher stopped making lesson plans because her CTs did not make them; while, in another school, the cooperating teacher skipped some topics she was not comfortable with. Again, I am not necessarily blaming the CTs because the shortcomings in their support, I would argue, arose out of the lack of a clear coordination with the university.

Previous research in ELTE suggests that cooperating teachers may effectively support student teachers to develop pedagogical reasoning (e.g. Hobson et al., 2009; Walkington, 2005). For example, based on a review of several research papers from many different countries in the world spanning over thirty years, Hobson et al. (2009) state that “it is clear from the synthesis of research evidence presented here that beginner teacher mentoring has great potential to produce a range of benefits for mentees” (p.213). However, there are studies, like mine, which have also revealed that when collaboration is not well conceptualised and organised, there is no meaningful support student teachers get from it in terms of teacher learning. For example, Farrell (2008) conducted a study in Singapore to explore the views of 60 PGDE student teachers on experiences of working with CTs. Farrell’s general finding was that the STs did not find much professional support from the CTs.

Some studies have also shown that there is often conflict between student teachers’ (and sometimes teacher educators’) views on teaching and those of the cooperating teachers, which - if not harmonised - can lead to inconsistent support (e.g. Graham, 2006; Rajuaan et al., 2008). My study supports these studies that have shown that cooperating teachers may not offer student teachers much professional support that could enhance their pedagogical reasoning without the CTs themselves being trained and supported in their roles or without proper coordination with the university.

5. Conclusion

From the foregoing discussion, I would conclude that the practice of the student teachers in my study indicates that while the goals of education in Kenya, generally and the goals of teacher education in particular emphasise the need to facilitate intellectual development of learners, the actual practice appears to concentrate on learning of procedures. I would argue further that if teachers themselves are not educated to develop a deeper understanding of their work through pedagogical reasoning, it would not be possible for them to facilitate intellectual development in their learners as stated in the national goals of education in Kenya. Similarly, it would not be feasible for them to facilitate the participation of their learners in the different aspects of development envisaged in the national goals of education.

Although the study was mainly concerned with student teachers of English language, their experiences were more or less typical of the teaching practice encounters of student teachers of other subjects in Kenya (and many Anglophone African countries) because the TP organisation is largely the same. Nevertheless, this being a case study, it would be important to carry out similar studies in other contexts so that a stronger case can be made from empirical evidence for reforms of the TE sector. That notwithstanding, I am convinced that the findings raise certain implications for practice that are worth considering.
6. Implications
Several implications arise from this study, two of which are relevant to the theme of this paper. These are defining and broadening the parameters of practice and re-conceptualising support during the practicum. In terms of practice, there is a need to clearly define what responsibilities student teachers need to be assigned. For example, it may be necessary to specify which classes they ought to teach and how many lessons in a week. Also, there is a need to identify and involve student teachers in practices that could broaden their chances of developing pedagogical reasoning. Such practices include observation of peers’ and cooperating teachers’ classes, keeping journals on their teaching and related activities and engagement in self-evaluation. The student teachers then ought to engage in discussions of such practices with peers, cooperating teachers and supervisors.

In terms of support; first, there is a need to reduce the focus on assessment during the practicum. This could be done by giving the STs a grace period during which they concentrate on practising teaching through, among other things, guided discussions with peers, cooperating teachers or supervisors that do not involve awarding of grades. Such a “grace period” could last the first half of TP; later visits could involve assessment in the sense of awarding marks but based on the student teachers’ development in pedagogical reasoning. I would therefore suggest a change in the criteria of assessing student teachers on TP. For example, the student teachers could be awarded marks on the effort they make to plan their lessons in a manner that would facilitate effective development of learners’ intellectual ability and on their progress in clearly explaining the principles that informed their procedures.

Secondly, there is a need to define the nature of support expected of the cooperating teachers (CTs). Such support would include assisting the STs to settle into the school, assistance with obtaining teaching resources, discussion of the syllabus and planning, discussion of the teaching method, classroom management and testing. They could also facilitate reflection on experiences that may develop a deeper understanding in ELT for both themselves and the STs. The CTs might also have STs observe some of their lessons and in turn observe the STs, then discuss emerging points from such observations.

References


