The single most influential school-based factor affecting student achievement is teacher quality. Teacher quality is a function of, among other variables, the training programme, teacher experience and the competence of the teacher educator. The quality of pre-service training to prospective teachers in teacher training institutions goes a long way to influence their performance in the field. This research paper examines the role of academic qualifications of college tutors, areas of specialty i.e. their major and minor teaching subjects at the college/university level, and the assigned subject area. The paper also evaluates the effectiveness of the Teachers Service Commission deployment policy. This is a case study of Mosoriot Teachers Training College, in Nandi County, Kenya. Data was collected by use of questionnaires, face-to-face interviews and staff establishment records. Of the total teaching force of 71, 65 (91.5%) tutors participated in this study. The data was descriptively analysed using percentages. The findings reveal that a) there is great disparity between teacher recruitment and deployment policy and practice where the college tutors were not teaching subjects for which they were not deployed to teach, and b) there was out-of-field teaching in teacher education institutions. The researcher recommends that the Teachers Service Commission re-examine the staffing norms in Teachers Training Colleges with a view to maximize the human resource and enhance quality of training.

KEYWORDS: Mismatch, Training, Placement, Policy
INTRODUCTION

Teachers are widely considered as one of the determining factors for the success of any strategy aimed at developing education of decent quality at primary and post-primary levels. However, as several recent international projects and studies clearly point out, many countries are currently struggling to address the 'double-challenge' of providing teachers in sufficient number and of 'good' quality. Kenya Vision 2030 identifies quality education and training as key enablers of human capital development, and the means of eliminating poverty, disease and ignorance, and also for improving the citizens' standards of living. Teacher education is an important component of education. Through it school teachers who are considered mentors of any society are prepared and produced (Lucas, 1972). Normally, it is ostensibly designed, developed and administered to produce school teachers for the established system of education (Kafu, 2003).

Primary school teachers are an integral force in determining not only the success of Free Primary Education (FPE) in Kenya, but also the realisation of the Millennium Development Goals (MDGs) and the Vision 2030. In recognition of their fundamental role, the Ministry of Education's (MoE) Kenya Education Sector Support Programme (KESSP) stated that, "the success of the Free Primary Education initiative of 2003 will largely depend on having a well trained, well educated and highly motivated teaching force".

The quality of education is directly related to the quality of instruction in the classrooms. It is a fact that the academic qualifications, knowledge of the subject matter, competence, and skills of teaching and the commitment of the teacher have effective impact on the teaching learning process (National Education Policy 1998-2010). Quality improvement in education depends upon proper training of teachers. The teachers cannot play any of the roles unless properly trained (Yadaved & Singh, 1988). Teacher trainers play a crucial role in the success of education programmes. The tutors have to “teach what they preach” in order to convince the teacher trainees of the validity of these practices and show how to apply them in the classroom. It is for this reason therefore emphasize has to be on the recruitment, instruction, assignment, and payment of the teachers' mentors.

According to Levine (2006), the quality problem in education is a consequence of preparation. From this vantage point, teachers who complete the Primary Teacher Education (PTE) pre-service programme do not leave with the appropriate knowledge and practices to be effective in contemporary classrooms. Critics tend to outline the following weaknesses: low admission standards, curricular fragmentation, excessive requirements, disconnection with classroom worlds, and inadequate quality control mechanisms. However,
in his analysis of selected government policies on PTE in Kenya, Kanore (2009) observed that over 90% of teacher trainers are not trained to handle Primary Teacher Education.

This study focuses on one of the least recognized; least understood sources of under-qualified teaching in schools - the problem of out-of-field teaching – where teachers are assigned by school administrators to teach subjects which do not match their training or education. This is a crucial factor because highly qualified teachers may actually become highly unqualified if they are assigned to teach subjects for which they have little training or education, and it is against this backdrop that this study sought to establish the extent of out-of-field teaching in Primary Teachers Training Colleges.

**REVIEW OF LITERATURE**

Education and training are essential ingredients of quality teachers and quality teaching. Research has shown that some teachers have a more significant impact on students' achievement than others (McAffrey, Lockwood, Koretz, & Hamilton, 2003; Rivkin, Haushak, & Kain, 2005; Rockoff, 2004). Based on these findings, the most important thing that governments need to do is to ensure that every learner has a highly accomplished teacher.

There is almost universal agreement that one of the most important characteristics of a quality teacher is preparation in the subject or field in which the teacher is teaching. Research has shown moderate but consistent support for the reasonable proposition that subject knowledge (knowing what to teach) and teaching skills (knowing how to teach) are important predictors of both teaching quality and student learning (Shavelson, McDonnell, & Oakes 1989; Darling-Hammond & Hudson, 1990; Murnane & Raizen, 1988). Knowledge of subject matter and of pedagogical methods does not, of course, guarantee quality teachers or quality teaching, but they are necessary prerequisites.

A review of more than 200 studies that examine teacher qualifications finds that teachers who are well grounded in their content areas and have greater knowledge of teaching and learning are more highly rated and more successful with students in fields ranging from basic education to vocational education (Darling-Hammond, Berry & Thoreson, 2001; Darling-Hammond & McLaughlin, 1999).

Teacher characteristics are more strongly related to students' achievement than school effects (Kilplinger: 1997). Fuller and Clark (1994) remarked that what really matters is the teacher's knowledge of the subject. Elaborating the importance of teacher knowledge as criterion for producing better results in the teaching learning process, Fawns and Nance (1993) state that teacher
knowledge of the subject matter, reason and judgment rather than teaching behaviour should be emphasized as the basis of an account of exemplary teaching.

Ingersoll (1998) found that almost one-third of all high school mathematics teachers in American high schools had neither a major nor a minor in mathematics or in related disciplines such as physics, engineering, or mathematics education. Similarly, the same proportion of mathematics teachers did not have a teaching certificate or license in mathematics. Almost one-fourth of all high school English teachers had neither a major nor a minor in English, literature, communications, speech, journalism, English education, or reading education. The situation was even worse within such broad fields as science and social studies. Teachers in these departments were routinely required to teach any of a wide array of subjects that were outside their discipline but still within the larger field. As a result, almost half of all high school students enrolled in physical science classes (chemistry, physics, earth science, or space science) were taught by teachers without at least a minor in any of these physical sciences. Moreover, more than half of all secondary school history students in America were taught by teachers with neither a major nor a minor in history. The actual numbers of students affected are not trivial. For English, mathematics, and history, several million students in a year in each discipline are taught by teachers without a major or minor in the field. He also observed that out-of-field teaching varied greatly across schools, teachers, and classrooms and that newly hired teachers were more often assigned to teach subjects out of their field of training than were more experienced teachers.

In a report based on data from the 1990-91 Schools and Staffing Survey, a nationally representative survey conducted by the National Center for Education Statistics, Ingersoll (1996) sought to establish the extent to which secondary level students in the core academic subjects (Mathematics, English, Social Studies, Science) are taught by teachers without at least a minor in the field; that is, what proportion of students receive out-of-field teaching. The findings of this study indicates that in 1990-91, many students in public schools in grades 7-12 were taught core academic subjects by teachers without adequate educational qualifications in the fields they were assigned to teach. The report points out that the out-of-field teaching was not, however, due to a lack of basic education or training on the part of teachers. Indeed, almost all public secondary school teachers held bachelor's degrees, about half had graduate degrees, and over 90 percent were certified (Choy et al. 1993; Ingersoll 1995a; Blank & Gruebel 1993; National Science Foundation 1992). The source of out-of-field teaching, as observed by Ingersoll (1996) lay in the lack of fit between teachers' fields of training and their teaching assignments. Many teachers were
assigned to teach courses in fields that did not match their formal background preparation.

In their study, Goldhaber and Brewer (1997) found that those mathematics students who received instruction from a teacher with advanced or master's degrees in mathematics, achieved higher scores as compared to those students whose teachers had no advanced degree or degrees in non-mathematics subjects. In order to investigate whether same relationship holds true for English language teaching or not, the present research was conducted.

Gok (2012) observed that the major weaknesses in the education sector lies in the management of teachers, particularly regarding the deployment and development of teachers, and the teacher training programmes that are viewed as being largely unfit for purpose. However, there has been no deliberate effort to harmonise the deployment policy and returns. For example, according to a Mosoriot Teachers college task force report on the factors leading to unsatisfactory performance in Primary Teacher Education examination (PTE) as presented to the members of the teaching staff on May, 7th 2012 during an opening of term staff meeting, it was observed that one of the factors for the poor performance was that lecturers were teaching subjects for which they were not trained.

**Rationale Of The Problem**

Over the years there has been an outcry among the Kenyan populace concerning the quality of teachers the teacher training colleges have been churning out. Researchers who have conducted learning assessments for lower graders in Kenya have recently confirmed that there is ineffective teaching in schools, which leads to low levels of achievement. Teaching and learning are what ultimately make a difference in the mind of the learner, and thus affects knowledge, skills, attitudes and the capacity of young people to contribute to contemporary issues. However, there still is limited literature, if any that attributes this problem to the quality of pre-service training the teachers receive in Primary Teachers Training Colleges (PTTC). The crucial question, however, and the source of great misunderstanding is why so many teachers are teaching subjects for which they have little background. The primary focus of this study therefore, was to determine the extent of out-of-field teaching in PTTCs and bring to light the underlying factors that have perpetuated this trend. The study sought to, not only determine the disparity between teacher recruitment and deployment policy and practice, but also determine the extent to which out-of-field teaching goes on in teacher education institutions.
OBJECTIVES OF THE STUDY

The objectives of the study are:

a) To determine the professional qualification of college tutors.

b) To determine the disparity between teacher recruitment and deployment policy and practice.

c) To establish the extent to which out-of-field teaching goes on in teacher education institutions (TTCs).

d) To determine tutor satisfaction regarding:
   i. Placement
   ii. Deployment policy

ASSUMPTIONS

The following assumptions were made:

a) all college tutors, by virtue of training and certification are adequately qualified, especially in the core academic fields to teach in PTTCs

b) all lecturers are trained and therefore competent to teach Education and

c) Education is not a subject area of specialty except at masters level.

RESEARCH METHODOLOGY

This case study was conducted at Mosoriot Teachers Training College. Of the total teaching force of 71 tutors, 65 participated in the study by responding to various question items in the questionnaire. The items were intended to capture their qualification, subjects of specialty (major and minor), assigned/teaching subject, satisfaction with assigned subject and their opinion with respect to Teachers Service Commission deployment policies. For clarity purposes, the researcher conducted face-to-face interviews among a number of respondents. Staff establishment records were also scrutinized to authenticate questionnaire-solicited information.

RESEARCH INSTRUMENTS

Questionnaires, face-to-face interviews and documents were used to collect data. These solicited information regarding qualifications of the college tutors, their areas of specialty, deployment, and the assigned subject. Frequency count of the respondents was processed and tallied to give the total raw scores. These showed how each respondent rated each item in the research instrument. Their responses were then converted into percentages.
DATA PRESENTATION, DISCUSSION AND FINDINGS

To establish the qualification and assigned subject areas among the tutors, the researcher asked the respondents two question items. Sixty five (65) tutors responded to the questionnaire and their responses are recorded in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Tutor Qualification</th>
<th>Number</th>
<th>Lecturers Teaching their Minors</th>
<th>Lecturers Teaching Out-of-Field Subjects</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Diploma</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 Bachelors on-going</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 Bachelors Degree</td>
<td>21</td>
<td>5</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>4 Masters on-going</td>
<td>19</td>
<td>7</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>5 Masters</td>
<td>12</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6 Doctorate on-going</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7 Doctorate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>16</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

From Table 1, we can see that most tutors (92%) at Mosoriot Teachers Training College hold at least a Bachelors degree. Requirements for deployment to a Primary Teachers Training College in Kenya is at least a Diploma in Education, and this therefore implies that all tutors at Mosoriot TTC are qualified to teach at this important education sub-sector.

However, from the above data, there is a discrepancy between area of specialty and assignment. It can be seen that 16 tutors (25%) are teaching their minors while seven tutors (11%) are teaching subjects in which they never trained. Of the 8 tutors teaching Education as a subject, only two have specialized in it at the post graduate level. This implies that only two tutors are the most qualified to teach education.

The findings above agree with Ingersoll's (2003) whose data shows that while almost all teachers hold at least basic qualifications in both elementary and secondary schools in the United States, there were high levels of out-of-field teaching i.e. teachers assigned to teach subjects that do not match their training or education. The source of out-of-field teaching lies not in the amount of education teachers have, but in the lack of fit between teachers' fields of training and their teaching assignments.

Teachers who pursue postgraduate studies have often found their way to Teacher Training Colleges. The researcher did not endeavour to establish the motive for their deployment. However, this study reveals that most of the tutors pursue education related courses such as Educational Administration, Planning, Economics, Psychology and Curriculum studies rather than subject
areas like History, Biology, Economics etc.

**Table 2**

**Postgraduates and Assigned Subject Area.**

<table>
<thead>
<tr>
<th>Area of specialty</th>
<th>Number</th>
<th>Teaching Education</th>
<th>Teaching Subject Major</th>
<th>Teaching Out-of-field Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Administration Planning and Economics</td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Psychology/Guidance &amp; Counselling</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Curriculum (general)</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Curriculum in Subject Area</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Special Needs Education</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>3</strong></td>
<td><strong>7</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

Data in Table 2 suggests that of the eight tutors holding a masters degree in Educational Administration, Educational Planning and Economics only one teaches Education, five teach their majors while two practice out-of-field teaching. Two tutors took Curriculum studies and also two took Special Needs Education at masters level. The former, however are teaching their subject majors, whereas one of the later teaches Education and the other practices out-of-field teaching.

The researcher sought to establish if the college tutors had undergone or received some additional specialized training as teacher educators prior to their deployment to Primary Teachers Training College, and any other subsequent training.

The researcher sought to establish if the 25 tutors teaching Education, their minors and those in out-of-field teaching were specifically deployed to teach these subjects. Out of the 8 tutors teaching Education as observed earlier from Table 1, only 4 were deployed to teach the subject. 11 tutors are teaching their minor whereas 7 are out-of-field. This implies that 38.5% of the 65 tutors who participated in the study teach subject areas for which they were not deployed to teach. To confirm consistency in the tutors' responses, the researcher analysed the college staff establishment data, which corresponded with the tutors' observation.

According to Ingersoll (2000), unlike traditional professions, teachers have only limited authority over key workplace decisions. He observes the source of out-of-field teaching lies in the way schools and teachers are managed, for example, that teachers have little say over which courses they are assigned to teach. Decisions concerning the hiring and the allocation of teachers to course and program assignments are primarily the responsibility and prerogative of school principals. The finding of this study agree with Ingersoll's that principals have an unusual degree of discretion in staffing decisions.
From Table 2, it is clear that institutional managers have usurped the role of
the Teachers Service Commission by redeploying tutors in their institutions,
which in the researcher's view, may in part account for the declining quality of
teaching and training, trickling down to the primary education sub-sector.

**INDUCTION COURSE FOR COLLEGE TUTORS**

The researcher established that none of the respondents had undergone some
special training to enable them assume the role of teacher trainers as observed
by 89.2% of the tutors who participated in the study. However, majority of
tutors belatedly attended some induction course in pedagogy and andragogy.
The findings of this study support Kafu's (2011) assertion that since colonial
time, teacher education had never been professionalised. He observed that
there had been a tendency to handle it casually. From the initial stages, he
postulated, teacher education had been left in the hands of the so-called
“experienced” primary and secondary school teachers who had no proper
training in this programme. This finding is consistent with that of Rok (2012)
that few teacher educators have teacher training qualifications and even fewer
have recent and relevant primary or secondary school teaching experience.

**Table 3**

**Masters' Degree Holders and Satisfaction Level.**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Subject Major</td>
<td>7</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Out-of-Field Teaching</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>

Data in Table 3 suggests that out of the 7 tutors holding masters
qualification and teaching their major, 6 expressed dissatisfaction with their
continued teaching of their major and expressed desire to teach Education.
Similarly, the two in the out-of-field teaching were dissatisfied with their
placement. All the nine tutors holding masters qualification, except one are
dissatisfied with their placement or the subject area assigned to them.

**Table 4**

**Lecturers Teaching their Minors, Areas other than what Studied at Masters, Out-of-Field Subjects and Satisfaction Level.**

<table>
<thead>
<tr>
<th>Area Assigned</th>
<th>Number</th>
<th>Dissatisfied with Area Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Teaching Subject Minor</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>2 Lecturers Teaching Out-of-field Subjects</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23</td>
<td>15</td>
</tr>
</tbody>
</table>
A significant majority of 9 (56%) tutors out of 16 teaching their minors were dissatisfied with their placement, whereas a great majority, 6 of the 7, of those in the out-of-field teaching observed dissatisfaction as per results in Table 4. It is obvious that teachers constitute a major and very expensive input in education production but when the teachers are dissatisfied, the required job commitment could be lost. Dissatisfaction among tutors is more likely to lead to burnout. This may result in a significant decrease in the quality of teaching, frequent absenteeism and negative disposition to teacher trainees.

The tutors were asked to indicate one factor among the given three that the Teachers Service Commission should consider in deploying teachers to teacher training colleges. Table 5 summarises their responses.

### Table 5
Factors to Consider in Deployment of Teachers.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Strength of Factor</th>
<th>Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject major</td>
<td>1</td>
<td>33</td>
<td>50.8</td>
</tr>
<tr>
<td>Interest</td>
<td>2</td>
<td>21</td>
<td>32.3</td>
</tr>
<tr>
<td>Area of Need/CBE</td>
<td>3</td>
<td>11</td>
<td>16.9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>65</td>
<td>100</td>
</tr>
</tbody>
</table>

From Table 5, it can be seen that 50.8% of the tutors indicated subject major should be the basis of teacher deployment. A significant proportion i.e. 32.3% indicated that the teacher's interest to be the prime mover of teacher deployment whereas 16.9% were of the view that the Teachers Service Commission should consider the level of need in a particular subject in their decision process. This finding suggests that the Teachers service Commission needs to majorly consider, among other factors, the subject major in deploying tutors to Teacher Training Colleges.

The researcher also sought to establish whether the tutors' were aware of any deployment policy to teachers training colleges. Their responses are recorded in Table 6.

### Table 6
Tutors' Awareness of Deployment Policy.

<table>
<thead>
<tr>
<th>Response</th>
<th>Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware</td>
<td>17</td>
<td>26</td>
</tr>
<tr>
<td>Unaware of such policy</td>
<td>48</td>
<td>74</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100</td>
</tr>
</tbody>
</table>
From Table 6 it can be seen that 26% of the respondents indicated that they were aware of the deployment policy to teachers training institutions. However, a great majority (74%) of tutors are unaware of any such policy. An analysis of the relevant TSC documents provides no deployment policy with respect to PTTC. Perhaps the gross incompetence of primary school teachers may in part be attributed to this lack of policy that has enabled undeserving individuals attain the coveted title of college lecturers.

Table 7

Highest Position Held in the Profession.

<table>
<thead>
<tr>
<th>Head Teacher</th>
<th>Deputy</th>
<th>Dean</th>
<th>Head of Department</th>
<th>Head of Subject</th>
<th>Senior Teacher</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>13</td>
<td>0</td>
<td>30</td>
</tr>
</tbody>
</table>

From Table 7, it can be seen that, 16 tutors (25%) have held the highest office in educational institutions. However, this data did not capture the principal, his deputy and one of the deans because they did not participate in the study. The findings of this study, to a great extent, confirm Kafu's observation that failed secondary school head-teachers are posted as tutors in teacher-training institutions. Available data also confirms that young university graduates, without any teaching experience or special training are being appointed as teacher-trainers.

DEPLOYMENT POLICY

Deployment, according to the TSC, is the process of posting teachers to areas where they are best qualified to perform. From the TSC website, the only deployment policy is with reference to identification, selection, appointment, deployment and training of heads of post primary institutions. The July, 2006 TSC policy on teacher recruitment and selection fails to address TTC’s concern in their guidelines for recruitment and selection of primary and secondary school teachers although from the table of contents one would expect this as indicated by the phrase 'Post-Primary Institutions'. The credibility of this finding lies in the admission that there are neither policies for the recruitment and career development of teacher educators as a specialist cadre within the teaching profession, nor is there a clear career and professional route to becoming a teacher educator (RoK, 2012).

CONCLUSIONS

Out-of-field teaching and the teaching of minor subject areas are extensive in Teacher Training institutions in Kenya. Moreover, this analysis has documented that this phenomenon is not due to shortage of tutors or a lack of
basic education or training on the part of tutors. The source of out-of-field teaching lay in the lack of fit between teachers’ fields of training and their teaching assignments. Most tutors indeed have training, such as a major and minor subject. We therefore contend that teacher educators have much to contribute to the development of a systemic approach to teacher quality. Recruiting more tutors and mandating high academic requirements will help little if large numbers of tutors continue to be assigned to teach subjects other than those for which they were educated or certified. Good teachers need to possess knowledge, not only about how to teach but about the subjects they teach. Out-of-field teaching is not simply an emergency condition but a common practice in most of public Primary Teachers Training Colleges in the country. There apparently are no deliberate policies that address deployment of educators to teacher training institutions in Kenya. Finally it is recommended that a) the government needs to ensure that teacher educators are assigned to teach according to their subject major or post graduate area of specialty b) the government needs to put in place requisite deployment policies for teacher training colleges and c) establish a teacher education directorate to co-ordinate the recruitment, deployment and development of teacher education nationally.

REFERENCES
