Abstract

Teacher Advisory Centres (TACs) were established in the 1970s for Kenya primary school teachers' professional development. However teachers in primary schools face challenges in curriculum implementation. There are reports on poor pupil learning outcomes. Research has found that teachers who participate in sustained curriculum based teacher professional development activities reported changes in practice resulting in turn to high student learning achievement. The problem of this study was that TACs tended to be ineffective in teacher professional development. The study interrogated the problem: How effective are TACs in teacher professional development? Shulman theoretical framework guided the study which focuses on content mastery and pedagogical knowledge. The study examined the extent to which TACs conduct teacher professional development activities, the challenges they face and the impact of teacher professional development on classroom practice. Descriptive survey was employed and the study was conducted in Nairobi County. TAC tutors and teachers were the main study subjects. Descriptive statistics was used to analyze data. TAC tutors spend 40% of their time performing teacher professional development duties and 60%, performing administrative duties of Ministry of Education. They lack facilitation. Lecture and question and answer characterized classroom instruction. TACs tend to be ineffective in teacher professional development. Recommendations made were that TAC tutors should be relieved of MOE administrative duties, facilitated, equipped with resources, knowledge and skills; provided clear organizational structure and career path.

Key words: Curriculum implementation, teacher effect, teacher professional development, pedagogy

Background to the Study

Teacher Advisory Centres (TACs) were established to provide the Kenya primary school teachers professional guidance and support (Ayot1982 & Kamunge 1988). The centres were supposed to be focal points for conducting teacher in-service courses and syllabus orientation to maintain high quality of education. However, Kenya Institute of Education (KIE), Ministry of Education (MOE) and the Kenya National Examinations Council (KNEC) report that TACs tend to be ineffective in teacher professional development (KNEC 2010, KIE 2010, MOE 1997). Despite existence of TACs, from the early 1970s to date and their clear mandate, teachers tend to lack access to effective, continuous teacher professional development (K1E 2009). Majority
of TAC tutors, about 1,000 out of the total 1050 were trained, on their role, by Kenya Institute of Education (KIE) and Teachers Service Commission (TSC) in 2009 and 2010 (KIE 2010).

Research shows that teachers who participate in sustained curriculum based teacher professional development reported changes in practice resulting in turn to high student achievement scores in state examinations (Darling-Hammond 1999 in Public Education Network 2004). Indeed quality effective teaching is the chief instrument in provision of quality education (World Bank 2007, UNESCO, 2008, Kelly 2008).

World Bank (2008) reported that around the world teacher professional development is treated as critical. In Luxembourg, Poland, Portugal, Slovakia, and Spain teachers accrue credit for attending professional development courses for consideration for promotion. In Italy, Cyprus and Greece, continuous professional development is an obligation for newly appointed teachers. Czech Republic teachers are entitled twelve working days in a year for independent study. In Italy, some schools suspend classes to conduct intensive teacher development initiative; teachers are exempted five days in a year to attend professional development activities. In Romania teachers are granted one day per week for professional development. In China life long learning is emphasized. Sri Lanka, study opportunities, training workshops and in-service are provided. In Philippines, school based training programme for science and mathematics are offered. In Japan-lesson study is adapted and almost all Japanese schools earmark a school-based professional development period within regular working hours. This has been picked up by Centre for Mathematics, Science and Teacher Education in Africa (CEMASTEA) in Kenya which trains secondary school science and mathematics teachers.

**Statement of the problem**

The problem of the study was that TACs tend to be ineffective in teacher professional development. Primary school teachers seem to lack access to organized, effective, continuous teacher professional development. Teacher preparation, which is the main role of TACs, is cited as a challenge in curriculum implementation (KIE 2010, Hardman 2009) and many students’ learning achievement is poor (KNEC 2010, Otieno and Oriedo 2010, Kigotho and Indakwa, 2011) yet Teacher Advisory Centres (TACs) were established to provide primary school teachers professional guidance and support in curriculum implementation (MOE 1995) and TAC tutors were trained on their role (KIE 2010). The study interrogated: How effective are TACs in teacher professional development?
The purpose of the study

The purpose of the study was to explore the effectiveness of TACs in teacher professional development in Nairobi County.

Research questions

The research questions which were investigated in the study were as follows:

1. To what extent do TACs conduct in service courses for teachers and visit schools to provide teachers professional support?
2. What challenges and issues do TAC tutors face in their effort to facilitate effective teacher professional development?
3. To what extent does teachers’ classroom practice reflect continuous professional development?

Significance of the study

The study addresses a key determinant in quality education—teacher professional development, and explores an intervention for enhancing quality of teaching which results to quality education. The study is therefore significant. Education is the engine of development which determines social, political and economic development of any country in the wake of challenges of global market, the knowledge economy and continuous, dynamic pace of technology. The study contributes to serving Kenyan citizens who are now very concerned about education, quite well illustrated by the excitement release of examination results evokes nationally.

Education quality depends greatly on effectiveness of teachers in curriculum interpretation; facilitating teaching and learning. Teachers interpret curriculum which delivers education. Research has shown that teachers’ success in professional development enhances the results of students’ learning (European Union 2010, UNESCO 2008). The country’s Vision 2030 aim of providing globally competitive and quality education and training and research…and turning Kenya to a regional centre of research and development in new technologies’ (Republic of Kenya 2007) is dependent on quality teachers. Even the new Constitution of Kenya relies on the teachers’ ability to actualize it in the classroom for sustenance and continuity.

Theoretical Framework

The study was guided by the theory advanced by Shulman (1986) that if teachers were to be successful, they would have to confront both issues of content and pedagogy simultaneously te
(Shulman 1986). The teachers must thoroughly grasp content, break and deliver it to learners through teachers’ innovative approaches in a manner that facilitates learning best. Both content and pedagogic knowledge are critical to whoever dares to teach who must also continuously dare to learn. The teacher should be equipped with knowledge regarding curriculum, educational contexts and purposes of education: useful forms of presentation, analogies, illustrations, examples, explanations and demonstrations; understanding of what makes the learning of specific topics easy or difficult, including knowledge about conceptions and misconceptions that students bring to the subject. The teacher should also be concerned with formulation of concepts, pedagogic techniques, knowledge of students prior knowledge, teaching strategies, what students bring to learning situations; prior conceptions students are likely to have about a particular domain and potential misapplication of prior knowledge. Teachers also should employ teaching strategies that make learning enjoyable and develop the learner holistically.

The theory is appropriate for the study because it guides TAC tutors on areas to target in planning and conducting teacher professional development which is the focus of this study.

**Conceptual Framework**

It is conceptualized that effective TACs will facilitate teacher professional development activities which will result in measurable results as follows: enhanced teacher mastery of content, teachers’ practice of modern teaching learning approaches; teachers’ creation of friendly conducive teaching learning environment, effectively planning and managing teaching learning environment, teacher accurately interpreting curriculum; there will be enhancement of teacher mastery of content which is critical in learning and teaching. It gives the teacher confidence and the teacher can select appropriate teaching learning resources and strategies. The result will be improved academic results, teachers become learners’ role models, positive behaviour is portrayed by both the teacher and the learner, positive attitudes and values are enhanced in teachers and learners, and learners acquire emotional intelligence and life skills. The TAC gets feedback and continually improves. The concept is illustrated in the following diagram:
METHODOLOGY
The study aimed at establishing the effectiveness of teacher professional development in Nairobi County.

Research Design
Descriptive survey design was employed in the study. The design allowed use of interview schedules to gather data from the participants and revealed the different respondents feelings, attitudes, opinions and experiences regarding effectiveness of TACs in teacher professional development. It also allowed probing for clarification of issues. Observation schedules allowed...
the researcher to observe phenomena and verify information provided in the interviews and also to experience situations by being present personally.

**Study Location**

The study was conducted in Nairobi County which is made up of the following districts and zones indicated including their sampling code: 1. Dagoretti 77250 district has – Riruta 42626 and Waithaka 16651 zones; 2. Embakasi 83369 district has Kayole 08244, and Dandora 97155 zones; 3. Starehe 63369 has Juja Road and Central zone zones. 4. Westlands 15707 has Kilimani 98409 and Parklands 45476 zones; 5. Langata 04900 has Karen 89300 and Nairobi West zones 6. Makadara 04151 has Buruburu 50051 and Viwanda 31753 zones, 7. Kasarani 22108 has Kahawa 79152 and Ruaraka 44160 zones, 8. Kamukunji 95493 has Bahati 68328 and Eastleigh 4639 zones.

Nairobi County was selected because of its uniqueness as the city of Kenya and may not be accurately generalized for other regions of the country. The environment has extreme characteristics such as the extreme luxurious Muthaiga residence, Karen, Westlands, the medium like South C, Buruburu and the lower estates scattered in different parts of the county and the abject poverty of the slums areas where some households can barely afford a meal a day. Means of travel is also diverse and travel fares keep shifting depending on time and weather conditions; traffic jams are other phenomena in the county.

**Subjects.**

The TAC tutors were the key subjects of the study because they run the TACs and in this study they are the main determinants of TAC effectiveness. Teachers and KIE officers are also subjects of the study. Five (5) TAC tutors who served five (5) zones participated in the study. One TAC tutor was male and the rest were female. Their teaching experience ranged as follows: two 20-30 years and three 30-40 years. Three TAC tutors were aged between 40-45 years and two of them were aged above 50 years. Two were graduate teachers, two diploma and one ATS1. All of them had taught in primary school before appointment to the TAC office. Teachers were also key subjects because they were the ones who received services from TACs; their performance was expected to reveal the extent of TAC effectiveness. Ten teachers were observed teaching. Five (5) TAC centres were also part of the study. They were observed using an observation schedule. Five (5) KIE officers were key subjects because they work
closely with TACs as outreach centres and interact with TAC tutors; they trained TAC tutors in their role.

**Sampling Procedure**

Simple random sampling was used. Out of the total eight districts and sixteen zones, five districts and five zones were selected as follows: Waithaka zone in Dagoretti district; Buruburu zone in Makadara district; Kahawa zone in Kasarani district; Juja Road zone in Starehe district, and Kayole in Embakasi district.

**Description of research instruments**

The researcher developed four (4) instruments for use in the study as follows: TAC effectiveness observation schedule for Teacher Advisory Centres; TAC effectiveness classroom observation schedule, TAC effectiveness Interview schedule for TACs tutors and TAC effectiveness interview schedule for KIE officers. All the instruments were administered by the researcher to the respondents in their natural area of daily operation.

i) **TAC effectiveness observation schedule for Teacher Advisory Centres**

TAC effectiveness interview schedule for TAC tutors had ten (10) items. It captured data on: TAC location, distance to schools, centre facilities and resources. Content validity was established by discussing the tool with KIE officers who had trained TAC tutors on centre management and role of TAC tutor. Reference was made to the TAC tutor’s Handbook used in training them. Triangulation of items was employed to establish reliability. For example, the question on adequacy of resources was included in other instruments.

ii) **TAC effectiveness interview schedule for TAC tutors**

TAC effectiveness interview schedule for TAC tutors contained twelve (12) items. It captured data on TAC tutors’ background information, role of TAC tutors, duties performed by TAC tutors, challenges faced by TAC tutors, feeling of TAC tutors and attitude to work. Validity was ensured by first reviewing Literature regarding Teacher Advisory Centres in the world including European Union countries. Areas of interest were noted and they were reflected in the items in the instrument. The instrument was discussed with TAC tutors who were not used in the study and some KIE officers. Areas lacking were included and those unnecessary were replaced with the necessary ones. Reliability was assured by triangulation of items such as role
of TAC tutors, challenges faced by TAC tutors in teacher professional development, rating of TAC tutors, time taken in teacher professional development.

iii) **TAC effectiveness classroom observation schedule**

The instrument contained three (3) questions with subsections. It gathered data such as: background information of the teacher such as gender, age bracket, teaching experience, academic level, teaching styles-student involvement and opportunity offered them to construct knowledge. To assure content validity of the instrument the researcher read widely on good teaching and learning techniques teaching and learning styles (best teaching and learning practices). Key points such as methods that lead to learner construction of knowledge, learning environment and teachers’ manner, were noted and formed part of the items in the instrument. Triangulation of some items in the instrument such as teaching method, challenges facing TACs and rating TAC tutors’ performance was used to establish reliability.

iv) **TAC effectiveness interview schedule for KIE officers.**

The instrument had seven (7) items. It captured data on background of the officers used in the study, rating TACs’ performance in teacher professional development. Content validity was established by discussing the instrument with KIE officers. The instrument was also used to gather data for triangulation on issues such as challenges facing TAC tutor and rating TACs in teacher professional development for purpose of validation.

**Data collection procedure**

The study data collection procedure followed three distinct phases. In the first phase the researcher wrote a proposal and discussed it extensively with the university lecturers and incorporated their ideas. Information regarding TACs in counties, Ministry of Education office provided data on districts and zones of the county. Information specifically on TACs and teachers in public primary schools in Nairobi County was gathered from City Education office. Finally the researcher managed to get the contacts of the TAC tutors in the sampled zones from Nairobi City Education office and KIE records and communicated to them through phone. The TAC tutors and the researcher negotiated and agreed on the day to meet at the centre and visit some sampled schools to interview teachers and observe them teaching.

In the second phase, a TAC tutor in each of the five (5) targeted zones was interviewed and the centres were observed. The TAC tutors accompanied the researcher to the schools where
teachers were observed while conducting lessons; and the researcher interviewed the teachers. The researcher also interviewed five (5) KIE officers and collected data.

In the third phase, the researcher organized data, analyzed it and wrote the report.

**Data Analysis**

Descriptive statistics was used to explore data and data were analyzed thematically following the research questions which addressed research objectives. For example, data on the objective, ‘to establish extent to which TACs had performed teacher professional development’ was captured in the TAC tutors Interview schedule, teachers interview schedule, TACs observation schedule and other interview schedules for KIE officers. It also captured data on issues and challenges faced by TACs and interventions needed to revitalize and sustain TACs’ were captured by interview schedule for TAC tutors and KIE officers. Data from the different instruments were grouped according to themes, compiled and organized. The organized information was edited, interpretations and conclusions were made. Results were presented in percentages and words. Based on the findings conclusions and recommendations were made.

**Findings of the Study**

The findings of the study were organized in themes and presented as follows:

**Extent to which TACs conduct in-service courses and visit schools for teacher professional Development.**

Three (3) out of five (5) TAC tutors had visited all schools once in a term. One (1) TAC tutor had visited two schools thrice in a term and another TAC tutor had visited a school twice (2) in a term. The majority of the schools (between 8-10 out of 15 schools) in their zone had not been visited. A term is three months.

TAC tutors conduct the following activities when they visit schools: Investigate on whether schools were effecting MOE policies such as stoppage of use of caning; students’ discipline and investigate on malpractices in schools; provide guidance and counseling where discipline was lax; guide where there were internal conflicts involving either teachers or students; gather data at the beginning of term on teachers and pupils who reported to school; assess general school standard during panel assessment, sort bursary issues as members of bursary committee, count textbooks; coordinate school feeding programme; check on number of orphans; collect Education Management Information System (EMIS) data for Ministry of Education (MOE); assist Key Resource Teachers with Tutor Marked Assignments and tutorials,
disseminate MOE information, Attend to school infrastructure, attend school annual general meetings, count textbooks, file forms on school feeding programme, co-ordinating economic stimulus programme, advice candidates, coordinate subject panel activities, induct newly appointed teachers, conduct teacher training needs assessment. All the TAC tutors prepare work plans which they never follow due to unplanned activities from the Ministry of Education (MOE) and other interested bodies.

No TAC tutor had organized an in-service course for teachers as their own initiative but as initiative of organizations such as KIE, CEMASTEA, CfBT, QASO, NGO, and publishers. The TAC tutors attend innumerable seminars and workshops organized by different education stakeholders but lacked facilitation to conduct training of teachers after they received the training. However private schools head facilitated them to train teachers in their own schools.

All TAC tutors (100%) accurately stated all their roles in teacher professional development. However, TAC tutors’ performance in teacher professional development was rated by all the respondents as fair at 40%.

**Challenges and issues faced by TACs in teacher professional development**

TACs and the tutors are faced with many issues and challenges. All TACs are located in the school premises and when the TAC tutor is out of station the room is used by the school staff hence security for TAC facilities is threatened. TAC tutors are occupied with many activities which are not necessarily related to teacher professional development. The challenges they face were given as follows: lack of facilitation to implement the rich knowledge, skills and attitude gained after attending innumerable workshops; lack of facilitation to visit schools, lack of stationery and facilities such as furniture. TAC tutors are overwhelmed by many administrative duties and numerous workshops, lack of capacity to perform administrative duties such as assessment of school facilities, lack of computer skills by TAC tutor and centre assistant, lack of computers, too many schools to visit and insecurity because some centres were not bugler proofed.
Teaching learning approaches used by teachers in the classroom

Lecture was the dominant teaching learning approach observed and rated by researcher as follows: Lecture takes 80% of a 30 and 35 minutes lesson; question and answer 12%, group work 4%, ‘individual work 2%, discussion and others like role play 2% of the lesson time. The TAC tutors also reported that the main teaching learning approach they had observed used in the classroom was lecture and text book teaching. Teacher wholly depended on textbook for classroom assessment. No TAC tutor observed teachers using radio lessons or computer to enhance teaching and learning. No teacher was observed using teaching aids.

About 40% of teachers reported that they had attended seminars and workshops facilitated by TAC tutors, 20% had never met the TAC tutor and 40% had no comment, However the seminars and workshops facilitated by TAC tutors were not organized by TAC tutors but by organizations and institutions such as KIE, CEMASTEA and QAS on syllabus interpretation and teaching of mathematics and science. No TAC tutor had organized a teachers' in service course as their own initiative due to lack of facilitation.

Challenges and issues faced by TAC tutors in their effort to facilitate effective teacher professional development

TAC tutors, in their effort to conduct teacher professional development, have faced challenges as follows: unclear terms of service, too many things to do, lack of capacity, unclear reporting systems and lack of facilitation. TAC tutors are employees of TSC but they report to Senior School Advisors or employees of the City Council of Nairobi; they lack of travel facilitation to visit schools in Nairobi. They use their own money to travel to schools, which is not sustainable. Some schools are however inaccessible.TAC tutors attend training workshops most of the time organized by different interested groups and they have no time and facilitation to implement knowledge and skills acquired, lack of finance, not recognized in MOE management structure, no stationery, centres are not furnished; they all had been given a room in primary schools which are used by the senior teacher when the TAC tutor is out of station, 12-25 schools to be visited, served by one TAC tutor, were said to be too many. MOE administrative activities interfere with teacher professional development activities. The centre assistants were not
computer literate, there were no computers, TAC tutors’ programme of work was interfered with by MOE.

TAC Attempt to address challenges and issues faced while conducting teacher professional development activities

TAC tutors explained challenges they face while conducting teacher professional development activities. One TAC tutor said:

‘I obey the superiors and attempt everything and end up doing a shoddy job’.
‘I trek to schools to observe teachers where possible, pay my own fare to schools i visit, hire taxis and boda boda (motor bike or bicycle) to visit schools, air grievances to City Advisor of schools, visit very few schools and also buy stationery at my own expense, pay for typing services, use my own personal computer, borrow stationery and other facilities from the host school and store documents at my home to ensure their security’.

Suggested Intervention measures:

The following are some of the suggestions of a TAC tutors on intervention measures:

‘Recognize TAC tutor post by including them in MOE structure, build capacity of TAC tutors, facilitating TAC activities by provision of finance, providing TAC tutor clear job description which is understood by all, Assign TAC tutors number of schools they can manage, furnishing TAC centres, allow TAC tutors to concentrate on teacher professional development activities, KIE should monitor TAC teacher professional development activities impact in classroom, providing clear career progression, and link up TAC management structure with KIE’.

Discussion

The results of the study reveal that TACs do not perform teacher professional development activities effectively and efficiently. TAC tutors are too overloaded and lack facilitation to be effective in discharging their core mandate and as a result teachers tend to lack professional support which TAC is the institution mandated to provide. This is in agreement with other studies such as Strengthening Primary Education (SPRED) one (MOE 1998) which had revealed that TACs lacked facilities, financial facilitation, tutors had no clear job description and their reporting system was not procedural. In the classroom, lecture method was dominant. Learner creativity was not encouraged. Questions and answers dominated the lesson where learners gave chorus answers. Report are currently received on poor content mastery of teachers in the subject they teach and poor teaching methods are reported as the main challenges (Otieno Standard News paper Thursday August 21st 2010) and (Oriedo Standard Newspaper Wednesday September 1st, 2010 page 28 and 30). Study by Headman (2009) revealed that teaching was teacher centred grounded in traditional method of teaching; the
discourse was made up of teacher initiated question and answer sessions interrupted by brief lectures. No wonder then that private schools who the study report that they facilitated TAC tutors to train their teachers led in the 2010 KCPE results and that 8,115 KCPE graduates from public schools can’t read or write (Kigotho and Indakwa, The Standard Newspaper 1st January 2011 pages10 and 18). The same paper reported that the KCPE overall grade has been declining steadily since 2008.

**Conclusion**

TAC tutors tend to be ineffective in teacher professional development though they seem to understand their role which they compare with the work they actually do and rate themselves in their teacher development performance at 40% in agreement with and teachers who had also rated them 40%. There are other providers of teacher professional development such as KIE and MOE but neither their outcome nor their impact was observed in teachers in their classroom practice. Teaching is teacher centred and lecture method is the main teaching approach. Teachers rely on textbooks for guidance; teaching aids were not used. Clearly teachers’ classroom practice did not reveal impact of teacher professional development activities such as in service courses.

**Recommendations**

Based on the findings of the study and the conclusions, the following are the recommendations:

1. TAC tutors should be relieved of MOE administrative duties to enable them to conduct teacher professional development activities.
2. TAC tutors should be equipped with knowledge and skills to enable them provide teachers quality professional development.
3. TAC tutors should be facilitated by provision of financial resources, equipment and facilities such as computers, stationery, and furniture and space for meetings to enable quality effective teacher professional development.
4. There should be a clear organizational structure with clear career path for TACs.
5. Education stakeholders who fund TAC in-service training should facilitate roll out of the activity to the teachers.
6. Research should be conducted on quality of professional development provided by other education stakeholders.
7. Teacher professional development providers should work together for a common goal.
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