

An Exploration of the Effect of Teacher Attributes on Effective Implementation of Continuing Professional Development Programmes: Evidence from Teachers in Zomba Rural Education District in Malawi and Other Eclectic Data Sources

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ABSTRACT This study is an exploration of the effects of teacher attributes on effective implementation of what teachers learn at Continuing Professional Development (CPD) programmes. The teacher attributes that were explored included age of the teacher; type of pre-service training programme the teacher attended; qualification of the teacher; gender of the teacher; and experience of the teacher. The study used a mixed method research design that collected both quantitative and qualitative data through questionnaires, focus group discussions and interviews. For the quantitative data, questionnaires were sent to all teachers in the district. However, 798 teachers, representing 47% responded to the questionnaire. Out of this 504 were male 269 were female. A further 25 respondents, did not indicate their gender. The researchers conducted focus group discussions with teachers and held interviews with head teachers and Primary Education Advisors. The data were analyzed both quantitatively and qualitatively. The quantitative data were coded and entered under SPSS while the qualitative data were reduced by clustering common themes. The results show a correlation between the teachers' attributes and the level of implementation of what was learnt at CPD training. This calls for CPD organizers to consider teacher attributes in the design of CPD programmes for teachers.

INTRODUCTION

Literature defines Continuing Professional Development (CPD) programmes for teachers as systematic efforts to bring change in the classroom practices of teachers, in their attitudes and beliefs, and in the learning outcomes of students (Guskey 2002). It embraces the idea that individuals aim for continuous improvement in their professional skills and knowledge beyond the basic training initially required to carry out the job (Gray 2005). Hence recently CPD for teachers is receiving a global attention and literature is attributing the recognition to the view of CPD as a means of improving learner performance (Coolahan 2002; Fraser et al. 2007; Schwille and Dembele 2007). Similarly, Fullan and Hargreaves (1996) and Fullan (1999) contend that, teachers are attracted to professional development because they believe that it will expand their knowledge and skills, contribute to their growth, and enhance their effectiveness with students.

In Malawi, the National Strategy for Teacher Education Development (NSTED) emphasizes that initial teacher preparation will never be sufficient as far as effective teaching is concerned (NSTED 2007). It is CPD which enables a teacher to go on teaching effectively. Recognizing this role, the government has put in place both on-school and off-school site structures and opportunities to facilitate the implementation of formal CPD for Primary School teachers. It has instituted a national network of 315 Teacher Development Centres (TDCs) solely for CPD activities. The TDCs are staffed by Primary Education Advisors (PEAs) who are part of the district advisory and support system. Following curriculum reviews, the Malawi Government has oriented all teachers to the new curriculum and it has lobbied NGO's and donors to assist in teacher professional development activities (NSTED 2007).

However, despite the implementation of the CPD programmes, research has shown that teachers have not improved their classroom practice (Centre for Educational Research and Training 2009; NSTED 2007; SACMEQ 2005). As a result, there has been poor learner performance at all levels of the primary education system particu-

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larly in the rural areas. This is evidenced by the country scoring the lowest in international examinations for the Southern Africa Development Community (SADC) region (Country Status Report 2009; SACMEQ 2005).

Following a major study that assessed how CPD programmes are implemented in Zomba Rural Education District in Malawi, it was noted that teacher attributes seem to have a role in influencing the implementation of what was learnt at CPD programmes. Hence this paper is a report on the findings on how teacher attributes, such as age; type of pre-service training programme attended; qualification; gender; and experience, influence the implementation of what teachers learn at CPD programmes. The researchers envisage that the findings on the above teacher attributes and how they influence the implementation of CPD at classroom level can stimulate a global debate as well as influence policy on design of effective CPD programmes for teachers.

Research Objective

The main objective of the study was to explore the influence of teacher attributes on the effective implementation of CPD programmes. As earlier noted, the teacher attributes that the study was interested in, included age; type of pre-service teacher training programme attended; qualification; gender; and experience. Hence the study explored the influence of these attributes on the implementation of what teachers learn at CPD training

interpretation of the data. The post-positivism paradigm was the philosophical foundation that was preferred in this study because of its flexibility in the use of both qualitative and quantitative approaches to research.

Quantitative data were collected through a questionnaire while the qualitative data were solicited through focus group discussions and interviews. According to the Education Management and Information Systems (EMIS) report, Zomba Rural Education District has 1684 primary school teachers and 191 primary schools distributed across 17 education zones of the district (EMIS 2009). For the quantitative data, 798 teachers (504 males and 269 females) representing 47% of the teachers in the district responded to the questionnaire. Twenty-five respondents (8%) did not indicate their gender. The researchers conducted 34 focus group discussions with teachers from various schools in the district in addition to holding interviews with 34 head teachers and 12 interviews with Primary Education Advisors.

The quantitative data were entered under SPSS and the researcher applied a few analytical techniques to sum up the indicators. The analysis took the form of univariate analysis such as frequency counts and percentages. The qualitative data were reduced by clustering common themes and writing stories and ranking the responses to uncover the main issues that were arising. The issues arising from the questionnaires, focus group discussions and the interviews were put together as findings for the study.

METHODOLOGY

The study used a mixed method research design to collect both quantitative and qualitative data on teacher attributes and their influence on the implementation of CPD programmes. The mixing of both qualitative and quantitative methods in the data collection process as well as the use of multiple sources of information enabled the researchers to solicit enough views from different data sources that gave adequate insights into the issues of implementation of CPD programmes in Zomba Rural Education District. Further, the mixed method approach ensured that biases that might be inherent in any single method neutralize or cancel the biases of other methods (Creswell 2003). The study was guided by the post-positivism paradigm and used concurrent procedures in the collection, analysis and

RESULTS

This section highlights the data on the influence of teacher attributes such as age; type of pre-service teacher training programme attended; qualification; gender; and experience of the teacher on the implementation of CPD programmes at classroom level. Initially, a general picture on how teachers rate implementation of what was learnt at CPD training, is highlighted. Thereafter the data is disaggregated by the attributes of the teacher.

Level of Implementation of What Was Learnt at In-service Trainings

The study enquired from the teachers how they found the implementation of what they learnt from the CPD programmes in their classroom set-

tings. They were given four options to rate their level of implementation namely, whether they found it very difficult; difficult; easy; or very easy to implement. The quantitative data show that 49% of the 674 teachers that responded to this question indicated that it was easy while 38% said it was difficult to implement. A further 7% and 6% said the implementation was very easy and very difficult respectively. This is captured in Table 1.

Table 1: Responses of teachers on level of implementation of what was learnt at CPD trainings, at classroom level (N = 674)

Level of difficulty	Number of teachers	Percentage of teachers
Very difficult	43	6%
Difficult	252	38%
Easy	330	49%
Very easy	49	7%

From Table 1, forty-four percent felt it was difficult to implement at classroom level what was learnt at CPD training, while 56% felt it was easy to implement. The qualitative data indicates that it was not easy to implement the new skills because teachers face many challenges as they put into practice what they learnt from the CPD training. For instance, one of the teachers in one of the focus group discussions conducted, expressed that:

All factors being equal, implementation of what was learnt at CPD trainings should not have been a problem. But because of the many challenges we face as we try to implement what we got from the training, such as large classes and lack of materials, we are put off. So many issues need to be addressed in our education system if effective implementation of what was learnt at CPD training is to be realized.

Head teachers also echoed similar sentiments that implementation at classroom level ought not

to be difficult but the teaching and learning environment is what frustrates the teachers most in the implementation process. One head teacher commented:

Owing to the many challenges teachers face in schools such as understaffing where the available few teachers float among a number of classes, issues that were learnt at CPD trainings become difficult to implement at classroom level.

Primary Education Advisors also concurred with the head teachers that understaffing leads to the few available teachers having to teach more than one class. Given such a situation, the teacher does not have ample time for thorough preparation and implementation of what was learnt at CPD trainings. From the views expressed, it appears even if the teachers acquire the skills during the CPD training, implementation at classroom level is hampered by the circumstances they find themselves in.

The researchers also disaggregated the data by age. This was done to explore whether age has an influence on level of implementation of what was learnt at CPD training. The results are presented in Table 2.

From the data presented in Table 2, almost all the teachers aged 19 years or less found the implementation of what was learnt at CPD trainings difficult. This could be because the level of thinking of such teachers may not cope with the pressures that come with the teaching profession. Hence, it may be important that such teachers be intensively monitored and supported in order to boost their confidence in the implementation of what they learn from CPD training.

The data was further disaggregated by the pre-service training programme that the teachers went through. Since 1964, there have been various teacher education programmes in operation for Primary School teachers in Malawi (NSTED 2007), starting with a two-year residential programme. This was followed by the Malawi Special Teacher Education Programme (MASTEP),

Table 2: Level of implementation (by age)

Age of teachers (in years)	Level of implementation							
	Very difficult		Difficult		Easy		Very easy	
	No.	%	No.	%	No.	%	No.	%
19 years or less	1	50%	1	50%	0	0%	0	0%
Between 20 and 29	9	6%	50	35%	74	53%	8	6%
Between 30 and 39	16	7%	99	40%	110	45%	20	8%
Between 40 and 49	12	6%	67	34%	104	52%	16	8%
50 years and over	3	5%	25	42%	28	47%	4	6%

an initiative which offered a three-year course that integrated residential and distance modes of delivery. MASTEP aimed at upgrading a large number of untrained teachers serving in the system. The third programme was a one-year residential programme, leading to the award of the same certificates as in the two-year face-to-face training mode.

The declaration of Free Primary Education (FPE) in 1994 brought in the largest number of untrained and under-qualified teachers. The government adopted a new model of teacher education called the Malawi Integrated In-service Teacher Education Programme (MIITEP) in an effort to train the untrained teachers in the shortest period possible. Under this design, previous ways of preparing teachers were suspended in all Teacher Training Colleges to give way to this new training model (NSTED 2007). This model comprised a combination of distance and residential delivery modes. During the residential period student teachers were given basic introductory lectures in teaching. They were also given reading material and assignments to do when they went back to their schools which constituted the distance learning component (NSTED 2007).

Now teachers are being trained under the Integrated Programme for Teacher Education (IPTE) and Open and Distance Learning (ODL) Programmes. The IPTE training programme comprises one year in college and another year in school under the supervision of the head teachers and college tutors. The ODL programme is a distance learning programme where new recruits are just oriented to the teaching profession for a short period after which they are then sent to schools to teach. Head teachers supervise them while on the job. During holidays, they go for short term courses in teacher training programmes.

Table 3: Level of implementation (by teacher training programme)

Type of training programme	Level of implementation			
	Difficult		Easy	
	No.	%	No.	%
Two years training programme	56	47%	63	53%
MASTEP	14	45%	17	55%
MITTEP	115	46%	133	54%
1PTE	68	42%	94	58%
One year programme	26	34%	50	66%

Table 3 presents data on the level of implementation of what was learnt at CPD training according to the type of pre-service training programme that the teachers attended

Though not much difference can be discerned from the different teacher training programmes, still there is an indication that teachers who went through the two- year teacher training programme have the toughest time in implementing what they learn from CPD programmes. From the data displayed in Table 3, forty-seven percent of the teachers who underwent the two year teacher training programme indicated that the level of implementation was difficult. Looking at the background of the teachers who went through this programme, one notes that their programme was the first to be introduced after Malawi got its independence in the 1960s. Hence one possible explanation would be that these teachers have stayed too long in the system and are set in their old ways of thinking and teaching which they value and trust. For instance, during the data collection exercise, one -teacher who attended the two- year teacher training programme commented that:

The old approach of teaching learners how to read and write was better because we could teach our learners systematically and in stages starting with the alphabet, then vowels and syllables. Thereafter we could go to words and sentences. This whole word approach advocated by the new curriculum seems not to work.

This to some extent calls for CPD planners to consider designing the CPD programmes in such a way that they take into consideration the different teacher training programmes that the teachers underwent during their pre-service training. This is because the background of the teachers varies depending on the pre-service training programme they attended and this affects their understanding of the issues involved.

One Primary Education Advisor expressed similar sentiments and said that:

Teachers underwent different pre-service training programmes therefore their understanding of issues is different because of the different backgrounds. Designing CPD programmes that put this into consideration may be a welcome idea as their needs would be addressed separately.

The study further established the level of implementation of what was learnt at CPD programmes according to the academic qualifications

of the teachers. Teachers in Malawi possess either a Malawi School Certificate of Education (MSCE) or a Junior Certificate of Education (JCE). However, there were still some teachers in the system who were operating with a Primary School Leaving Certificate of Education (PSLCE). Malawi School Certificate of Education is awarded after successful completion of four years of secondary schooling while Junior Certificate of Education is awarded after successful completion of two years of secondary schooling. Primary School Leaving Certificate is given after successful completion of eight years of primary education. At each level, one sits for a national examination administered by the Malawi National Examination Board (Ministry of Education 2008).

Disaggregating the data by the qualifications of the teachers in the District showed that teachers with Primary School Leaving Certificate of Education find it much more difficult to implement what they learnt at CPD training than those with Malawi School Certificate of Education or Junior Certificate of Education. This is illustrated in Table 4.

As can be observed from Table 4, twenty percent of the teachers with Primary School Leaving Certificate of Education indicated that they find it very difficult to implement what they learn from CPD trainings when compared with 6% and 7% of the teachers with Malawi School Certificate of Education and Junior Certificate of Education respectively. Previously, the Teaching Service Commission (a body responsible for

teacher promotions) used to train and employ teachers who possessed the Junior Certificate of Education and Malawi School Certificate of Education. With the introduction of the current teacher training programme (IPTE), only MSCE holders are recruited for the teaching profession. Though the Ministry of Education encourages teachers who do not have MSCE to upgrade, the study has found that there are still some teachers who have not yet done so. Some seem not to be interested while others fail when they sit for the examinations despite Teacher Union of Malawi's efforts to prepare the teachers for the MSCE exams.

Further, the data on this item were disaggregated by gender. The aim was to judge which gender faced more problems in the implementation of what was learnt at CPD training. This is illustrated in Table 5.

From Table 5, a conclusion can be drawn that, generally, more female teachers (48%) find it more difficult to implement what they learn from CPD programmes than their male counterparts (42%) though the gap is not very wide.

Lastly, the researchers also disaggregated the data by experience of the teachers in order to determine whether experience influences implementation of what is learnt at CPD training. Table 6 presents this data.

There is no clear pattern emerging from the data in Table 6 to enable one draw inference on whether the experience of a teacher has any bearing on the level of implementation of what was

Table 4: Level of implementation (by qualification)

Qualification	Level of implementation							
	Very difficult		Difficult		Easy		Very easy	
	No.	%	No.	%	No.	%	No.	%
MSCE	29	6%	185	38%	231	48%	38	8%
JCE	12	7%	61	36%	88	51%	10	6%
PSLCE	1	20%	0	0%	3	60%	1	20%

Table 5: Level of implementation (by gender)

Gender	Level of implementation							
	Very difficult		Difficult		Easy		Very easy	
	No.	%	No.	%	No.	%	No.	%
Male	27	6%	155	36%	216	49%	40	9%
Female	16	8%	86	40%	104	48%	9	4%

Table 6: Level of implementation (by experience of teachers)

<i>Experience of teachers</i>	<i>Level of implementation</i>							
	<i>Very difficult</i>		<i>Difficult</i>		<i>Easy</i>		<i>Very easy</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Less than 5 years	12	6%	67	35%	97	51%	14	7%
Between 5 and 10 years	1	2%	27	52%	21	40%	3	6%
Between 11 and 15 years	12	8%	48	33%	78	53%	9	6%
Between 16 and 20 years	11	6%	71	40%	81	45%	16	9%
Over 20 years	5	6%	27	34%	41	52%	6	8%

learnt at CPD training. Although the 'between 5 and 10 years' category had more teachers (54%) indicating that it was difficult to implement, there were fewer teachers (41%) in the 'less than 5 years' category. This makes it difficult to conclude that experience plays a role in the implementation of what was learnt at CPD programmes

DISCUSSION

Teachers were faced with many challenges as they tried to implement in their classrooms what they learnt from CPD programmes. One of the challenges concerns the attributes of the teachers themselves. This study has established that age; type of pre-service teacher training programme attended; qualification; and gender of the teacher do influence level of implementation of what was learnt at CPD programmes.

Teachers below 20 years of age found the implementation of what was learnt much more difficult than teachers of above 20 years of age. It is possible to attribute this trend to the thinking levels of such young teachers that they might not be developed enough to cope with the demands of the teaching profession. Weiner et al. (2003) refer to such teachers as 'beginning teachers'. As trained teachers, they might have the theory but lack the skills for translating the theory into practice. Being new in the profession and lacking in experience, such teachers may approach the profession with fear and anxiety. This finding confirms previous studies conducted in Zimbabwe by Nyagura and Reece (1990), which attributed weaker practical instructional skills of teachers to lack of experience. Hence younger teachers who are usually beginning teachers need more support in order to implement what they learn from the CPD training (Weiner et al. 2003).

Furthermore the type of teacher training programme that the teacher attended seemed to correlate with how easy or how difficult the teacher found the implementation of what was learnt at CPD training. Teachers that underwent the two-year teacher training programme, found implementation rather difficult compared to teachers who went through other training programmes. The two-year teacher training programme was the first teacher training programme in Malawi. It started in the 1960's when the country became independent (NSTED 2007). This gives the impression that such teachers might have stayed too long in the system as such they are set in their own way of doing things so that they are resistant to change. This supports a view advanced by Armstrong (1994) captured in Mpofu (2010) that all new programmes inevitably clash with certain entrenched attitudes and values which human beings tend to uphold, protect, preserve and promote. It might be critical that CPD programme organizers consider targeting teachers by the type of teacher training programme they attended because such teachers have or share similar backgrounds.

Similarly, the academic qualifications of teachers in this study were found to play a role in influencing the implementation of what was learnt at CPD training. Teachers with a Primary School Leaving Certificate of Education found the implementation more difficult than teachers with a Malawi School Certificate of Education. This could be attributed to their knowledge levels. It is questionable indeed if the teachers with Primary School Leaving Certificate of Education have enough content and methodology to use in lesson delivery that is necessary for attaining good quality education. It is also questionable if such teachers can easily acquire knowledge and

skills at CPD trainings and effectively translate them into practice at classroom level. Rogan and Grayson's (2003) theory of implementation advances that teachers with an inadequate content base, find it difficult to implement a designed programme. This view is also shared by Mpofu (2010) who ascertained that teachers who are under-qualified face problems in the interpretation of the syllabus as well as in class management. Hence it is imperative to enforce a policy that requires teachers to have the Malawi School Certificate of Education as a minimum entry qualification for the teaching profession.

Additionally, the study noted disparity in terms of the gender of the teachers and the implementation of what was learnt at CPD programmes. The female teachers found it more difficult to implement what they learnt from CPD trainings than the male teachers. However, this study did not establish the cause or causes for such a disparity. Nevertheless, there is evidence that students learn differently and at different paces because of their biological and psychological differences as well as the learning environment (Jie Fu 2009). Although inclusive, the gap may be attributed to learning styles employed at CPD trainings that they probably favour the male teachers rather than female teachers.

This study has not established a clear pattern to conclusively say experience does influence implementation of what teachers learn at CPD programmes at classroom level. This finding contradicts findings from other studies that indicated that expert teachers are able to make judgements by means of conscious deliberation because of their experience where as the novices or beginning teachers exercise no judgment (Dreyfus and Dreyfus 1986), and as a result they find it difficult to implement an innovation (Mohammed 2006).

CONCLUSION

A general picture has emerged from both the qualitative and quantitative data in this study, that implementation of what teachers learnt at CPD trainings can be affected by the attributes or qualities of the teachers themselves. Teacher attributes such as age; type of pre-service teacher training programme attended; qualification; and gender of the teacher do play a vital role in influencing the implementation of what was learnt at CPD training. The study has established that

the younger the teacher is, the more difficult the teacher finds the implementation at classroom level. Similarly teachers exposed to different pre-service teacher training programmes understand issues differently because of their differing backgrounds in their initial training. Further, teachers who are not well grounded in academic qualifications have problems in understanding issues and consequently, implementing what they learn. It should be obligatory therefore that CPD programme organizers take these teacher attributes into consideration when designing CPD programmes for the teachers. CPD programmes that target teachers of similar attributes would be much preferable than lumping teachers of dissimilar attributes together in the same training.

RECOMMENDATIONS

From the findings of this study, the researchers recommend the following:

- CPD programme organizers need to constantly monitor and support young teachers so that they feel confident and competent enough to implement what they learn from CPD training.
- Organizing CPD programmes that target teachers according to the pre-service teacher training programme they had attended may be pivotal because their needs would be addressed separately.
- Initiatives need be explored and /or intensified to ensure that all teachers who do not have the required academic qualifications be upgraded. This would enhance their understanding of issues as well as empower their capacity to implement what they learnt from the CPD training.
- CPD programme facilitators should ensure that delivery of CPD training should consider the different learning styles of males and females in order to address gender disparities in how either gender learns.

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