

Continuing Professional Development Through Sustainable In-service Teacher Training System In Kenya, Malawi And Zambia

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Abstract

A teacher is critical in modeling a learner. Continuing Professional Development (CPD) for teachers is important in attaining sustainable education. Africa has had several In-Service Training (INSET) systems as interventions towards CPD. Respective governments owning, managing, driving and sustaining INSET is vital if effective teacher professional development aimed at sustainable quality teaching and learning is to be achieved in any country. However, the problem is the presence of unsustained CPD and INSET systems in Kenya, Malawi and Zambia running for short periods with unsustained continuity. With the view to propose owned and sustained INSET system, the objective of this qualitative research was to identify governmental strategies that would enhance CPD through sustainable INSET. Secondly, it was to clarify teacher professional development with the focus on implementation of programs at operational levels, the role played by: individual governments through in- country trends and its structures as well as international trends and cooperation. To achieve this, a qualitative study based on the Grounded Theory approach examining historical records, perception and field visit was conducted. The data was analyzed with the support of ATLAS.ti 6.2 This paper discusses how the software worked to reduce the data so that it can be explained to the benefit of this research.

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Keywords

Education, teacher training, learner, INSET, CPD, Kenya, Malawi, Zambia, governmental strategies, Grounded Theory, historical records, change in practice

Introduction

“Nothing has promised so much and has been so frustrating wasteful as the thousands of workshops and conferences that lead to no significant change in practice when the teachers return to their classrooms. Neither teacher participants nor workshop leaders are satisfied with the results of their efforts” (Fullan, 1991). Developing countries inclusive of Kenya, Malawi and Zambia are not exempted in this quest. A teacher is critical in modelling a learner. Teachers’ Continuing Professional Development (CPD) is important in attaining quality education. There have been several INSET systems of interventions in Africa as interventions towards CPD. Respective governments owning, managing, driving and sustaining INSET is vital if effective teacher professional development aimed at attaining quality teaching and learning is to be achieved in any country. However, the problem is the presence of un-sustained CPD and INSET systems in Kenya, Malawi and Zambia. Such interventions run for a short period and they end with minimal or no continuity thereafter. The other factor which tends to be ignored is the level of confusion such strategies leave on the mind of the implementers such as teachers as they tend to find it hard to comprehend what or which methods are better to use in a classroom. It is not surprising to find a teacher trying to propagate a certain way of planning a lesson and they associate it with the cooperating partners instead of focusing it on the general pedagogy of teaching and its context. This research there-

fore seeks to investigate and inform on the issue by producing a theoretical explanation that can explain the existing relationship of CPD for teachers and INSET system with the view to suggest an alternative approach that could enhance sustainability.

Discussions On Teacher And Teacher Professional Growth

The need to invest in professional growth of a teacher can be traced many years back in works by Erikson 1959, Fuller 1969, Unruh and Turner 1970, Gregorc 1973, Katz 1972. However, the past two decades have shown an increased level of activity in the area of research on CPD for teachers and INSET systems in the world. Borko et.al (2010) observed that teacher professional development (PD) had become very tightly connected to many school-improvement efforts around the world. In the past several years, there had been an increasingly urgent, perceived need for more PD opportunities, along with assurance that the programs were of high quality and effective. Researches such as Feiman-Nemser (2001) and UNESCO (2011) have argued that, if we want schools to offer quality teaching and learning opportunities for students, quality learning for teachers should be made available. In addition, such opportunities should be grounded in a conception of learning to teach as a lifelong endeavor and designed around a continuum of teacher learning (UNESCO 2011). Adopting this expanded view of teacher learning and professional practice, educational reforms in all disciplines and across all grade levels should stress the need for educators to take part in PD programs that increase their knowledge, improve their practice and ultimately foster student learning and achievement gains (Borko et.al 2010).

Historically there has been a shift in the philosophy of teaching and learning such as Modern Maths in the 1960s, Back to Basic in the 1970s, Problem Solving in the 1980s and Scientific Literacy in the 21st Century. These have necessitated the shift in the way Teacher professional development should be conducted and organized. Shifts in this area show a deviation from in-service training approaches observed by Fullan 1979; Borko et.al 2010, in which teachers were expected to learn a clearly defined body of skills through a well-specified process, often delivered in one-shot workshops or courses taught away from the school premises. These traditional approaches generally are viewed as overly fragmented, not connected closely enough to classroom practice and out of alignment with current theories of learning and school reform. They are being replaced by approaches that are more closely aligned with constructivist and situative theories and reform efforts; specifically they are grounded in classroom practice and involve the formation of professional learning communities (Borko et.al 2010). Learning to teach well is a developmental process that unfurls over time when teachers have appropriate support and opportunities to learn (Feinan-Nemser 2001).

Currently the demand for investment in research in professional development of teachers and teacher education in general has increased and the momentum has increased in the last decade or so. In the three countries the reviewed studies on TPG show little activity and unsustainable systems. The approaches used were externally designed. Most if not all of them were cooperation types and the recipient

countries were not ripe to take them on as seen from failure to continue after the project period (Bunyi 2010, Sifuna & Kaime 2007, IFIC 2007, Edwards 2005, Kunje et.al 2003, JICA-Malawi 2005, Baba & Nakai 2010, Banda 2007, Menon et.al 2005, Hambokoma et.al 2002). In supporting this, the World Bank (2010) stated that although the case-study countries like Malawi and Zambia had some form of CPD provision, the scale and coverage of CPD provision was quite limited, as much of the focus of in-service training was on provision of initial qualifications to unqualified teachers. In most of the countries, a significant volume of short courses provided through donor projects and NGOs, often with limited geographical coverage, supplemented government provision of CPD.

However, owned and sustained INSETs in Kenya, Malawi & Zambia have not been documented yet, nor has there been much research on it. The need to identify what is happening in these countries cannot be over emphasised.

Overview Design Of The Study

According to Wolcott (1994), the data transformation involved in qualitative analysis is comprised of three interrelated phases of an integrated and iterative process. These can be categorized as description, analysis and interpretation. Contreras (2011) in agreeing with Walcott (1994) said that through this process, the transformation of the original text (participant's account) into a resulting text (researcher's account of participant's account) is done systematically, relying on the rich description of sources of information and on the creative identification of the features of the data.

In order to develop objectivity and sensitivity in the research this study used a combination of three sources: Historical Trends Review, Perception of INSET and Interviews Analysis from field visits.

Choice Of Grounded Theory Approach In This Research

The aim of this research was to inductively develop a theoretical explanation on teacher professional growth through owned and sustainable INSET system on systematically collected data. The selected countries (Kenya, Malawi and Zambia) belong to developing countries of Sub-Saharan Africa, which have undergone several policy reforms in the area of INSET and at the same time having minimal sustainability. Of interest is the fact that most of the theories which have been behind the implementation of the said policies in INSET where more "foreign" in relation to the countries framework of operation. One would see an approach of "one size fit all" hence resulting into INSET activities that were not owned and sustained in nature. The current global views of technical support prompt the need to look for research that would strengthen teacher professional growth and INSET systems that are sustained and owned. Thus, Grounded Theory therefore has the desired qualities needed to add another view of running INSET.

Further Strauss and Corbin (1998) stated that; "It is important that other countries not borrow theories but instead develop their own, ones that reflect their societies or citizens cultures and behaviors. Alas, a mistake frequently made is that theories developed in industrialized nations are super imposed on non-industrialized ones or on other industrialized nations that have different populations and cultures. The imposed theories just do not fit, either in whole or in part and thus can be very misleading" (p287).

Research Method

To manage and analyze the data, at first historical documents on international and in-country trends of INSET were reviewed. Secondly, the adapted and modified Context, Input Process and Product (CIPP) approach by Stufflebeam (2002) was used to analyze past INSET programs targeting one case from each of the research countries of Kenya, Malawi and Zambia. Thirdly, interviews and focus groups were conducted. Teacher professional growth activities occur over a long-term, therefore, whatever is observed in the current forms of practice in CPD and INSET needs to be understood from a longer perspective as it reflects many adjustments that could have taken place in the process. Hence, face –to-face interviews and focused group discussions seemed appropriate to cover the time dimension. The purpose for the focus group interviews was to enable the researcher have a larger collection of ideas from the participants. Krueger and Casey (2000) justify this by saying that some individuals express themselves better in a group rather than when as an individual. Theoretical sampling was used to collect the interview data starting with one interview in Kenya, transcribed it, coded it, and then decided whom to interview next. In between the interviews, a focus group interviews were conducted. Therefore, during transcribing each member in the focused group discussion was assigned an identity symbol. One hundred forty-two (142) interviews were conducted, however only thirty three (33) interviews were used for analysis. Within the 33 are each individual responses including those of the members from the focused group discussion were treated as individual respondents.

In order to get an in-depth explanations and views from respondents the interview questions were based on the following semi-structured theme questions:

1. What is the status and challenge of Teacher Education from the INSET and Pre-service point of view?
2. What strategies are available to address these challenges?
3. What is the comment on Sustainability of the past and current (named) INSET programs?
4. What system is or should be available to sustain INSET for teachers CPD at school level?

With their permission, the tape/video recording was used as a way of storing live verbatim. Semi-structured interview saved as a good tool as it offered guide on what questions to be asked with allowance of flexibility of wording. While maintaining the theme, however, the questions changed as situations changed depending on the person being interviewed. This was in agreement with Patton (2002) who said that by using a pre-determined set of questions, the interviews yielded responses, which focused on the central themes of the study and facilitated the analysis process for this study. Focus group discussions

followed the same theme questions but this time allowing free participation in the interview in answering the questions.

The interview data were analyzed with the support of ATLAS.ti 6.2. In ATLAS.ti, the tools that allow for description, analysis and interpretation are conducive to a richly integrated process of data transformation. This integration allows for in-depth exploration of single units of data but always within the view of the whole. Additionally, ATLAS.ti permits the researcher to simultaneously describe the content of the text, establish meaningful connections and make sense of all through interpretation (Contreras, 2011).

Data Analysis And Results

The following research questions acted as guide during the analysis of data:

1. What are the characteristics of the current INSET systems for teachers CPD in Kenya, Malawi and Zambia? Numbering starting with 6 instead of 1
2. What is the relationship among the education structures determined by political systems, in-country societal demands, protocols and external support by cooperating partners?
3. How do systems created from such relationships affect the sustainability of INSET training for teacher CPD?

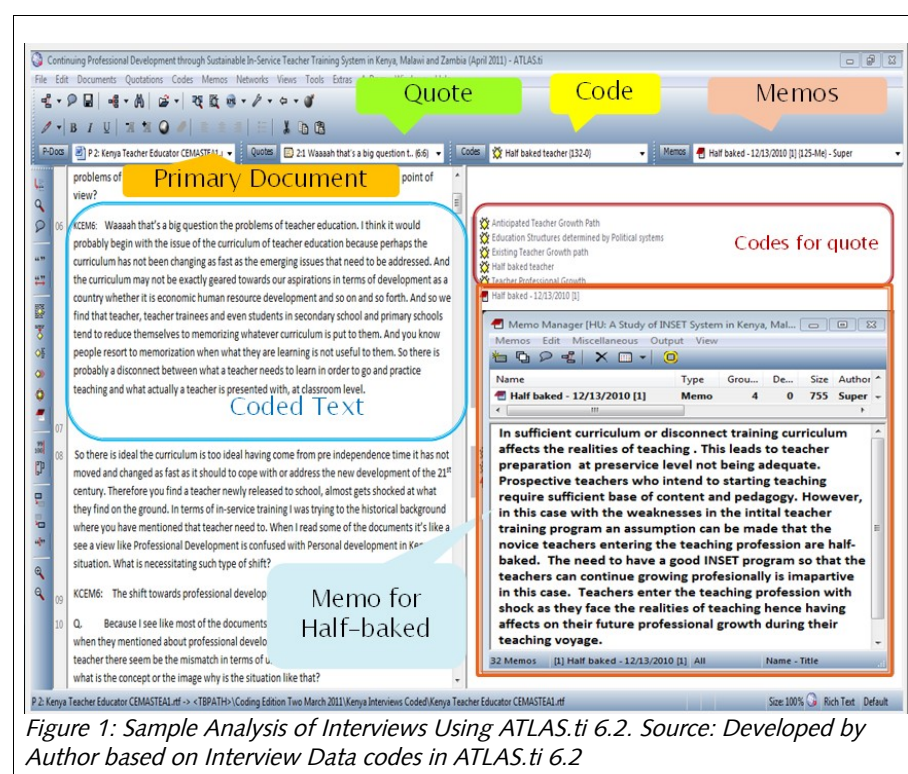
Table 1 highlights the main tools and functions within ATLAS.ti i that allow for description, analysis and interpretation. As these three phases of data transformation are not mutually exclusive and many times are overlapping, the functions and tools in ATLAS.ti are also not mutually exclusive and frequently overlap as well. Table 1 includes the functions of the software that Contreras (2011) considers to be most evidently related to the three phases of the process.

Objects of the Hermeneutic Unit	The Three Phases of Data Transformation		
	Description	Analysis	Interpretation
Primary documents	<ul style="list-style-type: none"> • Description of primary documents (Comment Tool) • Quantitative output of terms (Word Cruncher) 	<ul style="list-style-type: none"> • Filters 	
Quotations	<ul style="list-style-type: none"> • Quotations • Description of quotation (Comment tool) 	<ul style="list-style-type: none"> • Query tool to explore quotations through codes • Hyperlinks (quotation-to-quotation networks) • Filters 	
Codes	<ul style="list-style-type: none"> • Descriptive codes (open coding, in vivo coding) 	<ul style="list-style-type: none"> • Analytical codes: codes as hypotheses (free coding) and codes as 	<ul style="list-style-type: none"> • Quantitative output of codes per primary document (Code-PD-Table) • Query tool

	<ul style="list-style-type: none"> Description or operational definitions of descriptive and analytical codes (Comment tool) 	<ul style="list-style-type: none"> emergent theses (open coding) Co-occurrence tool Super codes 	<ul style="list-style-type: none"> Code-to-code networks Filters
Memos	<ul style="list-style-type: none"> Descriptive memos 	<ul style="list-style-type: none"> Analytical memos (integration) Filters 	<ul style="list-style-type: none"> Interpretative memos (ultimate integration)
Families	<ul style="list-style-type: none"> Description or operational definition of all families (Comment tool) 	<ul style="list-style-type: none"> Primary document families Code families Memo families Super code families 	
Networks		<ul style="list-style-type: none"> <u>Strong link networks:</u> Hyperlinks (quotation-to-quotation networks) Code-to-code networks Description of the relationships expressed by strong link networks (Comment tool) 	<ul style="list-style-type: none"> <u>Weak link networks:</u> Primary document family Code Family Primary documents linked to quotations Quotations linked to codes Memos linked to quotations, codes, and memos Description of the relationships expressed by weak link networks (Comment tool)

Table 1: The Interview Data Transformation Process in ATLAS.ti Source: Contreras (2011) Data Transformation in ATLAS.ti: An Integrated Process of Description, Analysis, and Interpretation, ATLAS.ti - The QDA Newsletter, http://www.ATLAS.ti.com/nl_201101_best.html

The transcribed interviews and focus group data were entered in the computer. These are referred to as primary documents in ATLAS.ti. After that, the data was processed by reading to identify relevant data segments, the quotes, which could then be coded. Thereafter memos based on the codes were created. Figure 1 shows the sample process of interview analysis.

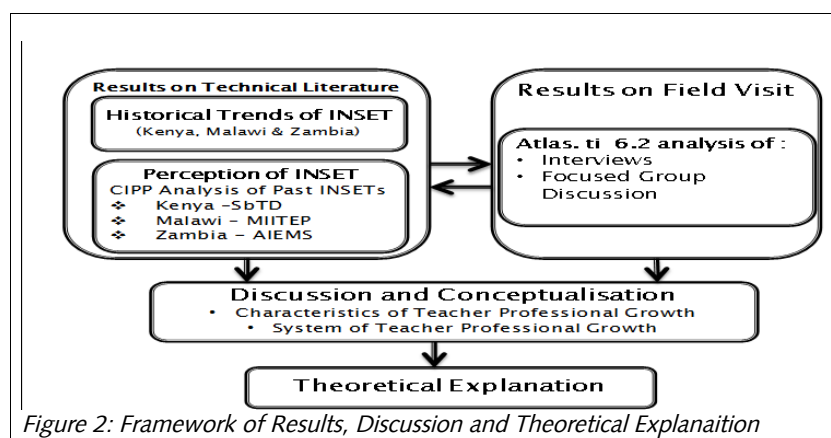


The analytic procedures in data coding and analysis involved the method of constant comparison. After noting an event, it is compared to other events with respect to commonalities and differences. Constant comparison serves to uncover and explain patterns and variations. During the research process, hypotheses about the relationships between categories

were developed and tested. Hypotheses are revised and qualified until they pertain to all data material, in preparation of the development and grounding of the emerging theory. Since the goal of the research is to build theory, the findings were presented as a set of interrelated concepts not just listings of themes. The statements were interpreted as abstractions and not the descriptive details of each case (raw data), they (like concepts) were constructed out of data. With the aid of ATLAS.ti 6.2 all, these processes were done simultaneously and the output was run after analysis as results.

Results

Considering the complexity of interpretation of the data, Figure 2 shows the flow used for data interpretation. The analysis of the technical literature of historical results and perception of INSET were useful in the field during interviews and focused group discussions. At the same time, the results from the interviews and focused group discussion were used to confirm the technical literature. This created an internal triangulation of results. At the same time, the results of the analysis of the technical literature (Historical and Perception) on one hand and those of field visit (Interviews and focused group discussions) were both used in the discussion and conceptualization leading to theoretical explanation as the end product of the research process. The results of these processes are presented in the sections that follow.



Results Of The Interview Analysis

Table 2 Codes – Primary Document table, which looks at the actual codes, found in the sample and their distribution. The table shows the 29 codes, from 33 (14-Kenya, 12-Zambia and 8 Malawi) Primary Documents which has 680 quotations.

Appendix H - CODES-PRIMARY-DOCUMENTS-TABLE
 Report created by Super - 03/30/2011 12:17:09 PM
 HU: [...] Continuing Professional Development through Sustainable In-Service Teacher Trainin...]
 Code-Filter: All [29]
 PD-Filter: All [33]
 Quotation-Filter: All [680]

Codes	Primary Document	Academic Qualification Improvement	Anticipated Teacher Professional Growth	Bottom up	Cascade INSET	Characteristics of CPD acting on the teachers	Characteristics of good teachers	Cluster INSET	Donor influence	Education Structures determined by Political systems	Existing Teacher Professional Growth	External Support by Cooperating Partners	Financial Gain	Global & Regional protocols eg. EFA, MDG, ADEA, SMASE, TICAD	Half baked teacher	Historical Perspective	Image of INSET	In-country trends	INSET Support structure	INSET Gap	Insufficient Ownership	Internal Socio-economic demands determined by demographic and Cultural factors	International Trends	Look back Re-determine Course Approach	Owned CPD and Sustained INSET	Policy changes towards INSET	Sustainability	Teacher Professional Growth	Top down effects	TOTALS:			
KENYA	P 1: Kenya Headteacher Kisumu .rtf	0	7	9	2	9	4	0	3	5	9	2	2	0	0	6	4	14	2	11	7	11	6	2	12	6	7	17	7	166			
	P 2: Kenya Teacher Educator CEMASTEAL.rtf	1	1	0	2	5	2	2	1	8	7	1	0	0	6	3	13	0	12	4	10	3	0	0	4	5	1	8	1	100			
	P 3: Kenya Cooperating Partner JICA Kenya .rtf	0	1	5	1	5	2	1	11	12	5	6	2	6	3	7	15	7	17	4	18	6	6	6	22	5	9	14	1	199			
	P 4: Kenya Teacher Educator KU.rtf	2	4	0	0	2	1	0	2	9	6	3	6	0	0	6	7	4	9	3	2	6	4	0	2	1	3	0	4	0	86		
	P 5: Kenya Teacher Educator INSET.rtf	1	1	2	9	7	1	2	3	5	0	3	2	0	0	1	2	13	2	7	3	8	3	0	2	1	3	2	2	6	93		
	P 6: Kenya Teachers Kisumu FG.rtf	5	6	2	1	9	4	1	0	4	7	0	0	0	0	4	2	16	2	3	3	6	0	0	1	4	3	3	13	1	100		
	P 7: Kenya Teacher Kilbala.rtf	1	7	0	0	13	0	0	2	2	13	0	8	0	0	6	2	12	0	2	5	9	4	0	0	1	0	1	2	9	0	96	
	P 8: Kenya Education Manager MOE Hq. rtf	1	0	0	0	5	0	0	2	9	5	2	0	1	0	2	4	7	6	8	5	13	7	2	6	1	6	0	5	2	99		
	P 9: Kenya Cooperating Partner DFID Kenya.rtf	0	2	3	1	11	0	2	11	9	1	12	1	5	0	2	10	5	10	11	5	17	8	7	5	4	1	3	6	158			
	P10: Kenya Cooperating Partner USAID Kenya.rtf	1	8	4	0	10	1	0	9	5	4	6	2	0	3	8	7	7	10	12	3	19	6	5	8	1	11	1	3	3	157		
	P11: Kenya Headteacher Kyamwenzie.rtf	2	3	3	2	10	0	0	0	1	3	0	0	0	0	3	2	10	3	8	3	10	6	0	2	2	1	6	0	82			
	P12: Kenya Parent Mui.rtf	7	2	0	0	5	0	0	0	0	1	0	0	0	0	3	2	1	3	0	0	2	10	1	1	0	0	0	0	3	0	348	
	P13: Kenya Teacher Educator CEMASTEAL3.rtf	0	1	0	1	11	0	0	11	3	1	8	3	4	7	3	2	4	6	8	4	19	14	5	5	1	9	0	2	10	143		
Total Kenya		21	49	28	19	102	15	8	53	72	62	43	26	12	16	53	54	121	60	102	48	148	77	29	40	55	60	27	86	37	1517		
ZAMBIA	P14: Zambia Education Managers DEBS Kasempa.rtf	2	13	1	1	24	0	1	0	9	10	0	0	1	0	11	7	12	10	23	12	24	12	0	8	2	9	1	15	4	212		
	P15: Zambia Head and Teachers Sota Serenje FG.rtf	0	3	0	1	9	0	0	4	1	0	0	0	0	0	5	4	4	3	4	5	10	3	0	2	0	1	0	5	2	66		
	P16: Zambia Teacher Chilibombwe .rtf	2	1	4	0	19	1	4	0	5	4	0	1	0	0	2	3	8	4	6	2	8	4	0	0	5	2	2	11	2	100		
	P17: Zambia Teacher Educator Nkumuh- Central Province .rtf	2	2	0	0	10	1	0	0	4	3	0	2	0	0	5	3	4	6	7	1	8	4	0	7	0	5	1	9	2	86		
	P18: Zambia teacher Chilombo.rtf	2	11	0	0	12	0	0	0	8	0	0	0	0	0	7	5	8	4	8	5	7	1	0	3	1	1	0	9	0	92		
	P19: Zambia Headteacher Solwezi Tech.rtf	0	3	3	1	13	0	1	0	7	2	0	1	0	0	5	2	5	3	9	1	7	5	1	2	3	1	2	4	1	82		
	P20: Zambia Education Manager PEO Hq Solwezi.rtf	2	3	1	0	13	0	0	2	0	1	0	0	0	1	3	7	5	2	10	2	10	6	1	7	0	2	0	3	2	88		
	P21: Zambia Teacher Educator Solwezi TTC.rtf	7	8	4	0	15	0	2	0	5	5	0	0	0	0	3	6	9	4	10	4	7	5	0	10	3	4	2	7	0	120		
	P22: Zambia Cooperating Partner JICA.rtf	2	2	4	12	0	2	4	7	3	4	0	4	2	3	8	10	6	11	7	10	5	0	10	3	5	0	4	0	6	3	139	
	P23: Zambia Headteacher Kabulonga Lusaka .rtf	1	3	0	1	6	0	0	0	4	0	0	1	1	0	1	5	4	5	5	6	5	5	0	5	0	4	0	6	3	71		
	P24: Zambia Teacher Lumwimba Day Lundazi.rtf	0	4	0	0	7	0	0	0	0	1	0	0	0	0	3	3	4	2	7	2	1	4	0	2	0	0	0	7	0	47		
	P25: Zambia Education Managers PEO Hq Chipata.rtf	1	5	1	0	17	0	0	0	5	0	0	0	0	0	4	5	6	8	5	3	8	11	0	7	0	4	0	9	1	100		
Total Zambia		21	58	16	8	157	2	10	4	57	38	4	5	6	3	52	58	79	57	105	50	105	70	5	58	15	38	8	93	21	1203		
MALAWI	P26: Malawi Cooperating Partner JICA SMASE.rtf	0	1	5	10	0	4	9	2	9	2	6	0	6	2	7	8	10	10	7	12	8	9	4	0	6	0	8	3	153			
	P27: Malawi Headteacher Mchinji.rtf	0	1	2	9	0	2	1	4	2	0	2	0	2	0	4	3	6	5	8	5	6	5	2	2	0	1	0	5	2	77		
	P28: Malawi Cooperating Partner USAID 2.rtf	0	2	0	2	12	0	0	7	11	4	6	2	8	1	4	12	8	10	13	9	10	11	6	7	1	9	0	8	1	164		
	P29: Malawi Deputy Headteacher Salima .rtf	0	0	1	0	10	0	1	4	2	1	0	2	1	0	1	5	9	5	8	6	6	3	1	2	0	0	0	3	0	72		
	P30: Malawi Teacher Educator TDC Salima .rtf	0	0	0	0	5	0	0	1	4	2	1	0	3	0	2	3	5	2	5	2	5	5	3	1	1	0	4	0	4	1	57	
	P31: Malawi Teachers Kapanganta FG.rtf	0	0	0	1	10	0	0	0	7	5	0	2	1	0	6	4	3	4	2	2	6	8	6	0	1	0	5	1	0	5	1	73
	P32: Malawi Teachers Mchinji FG.rtf	1	2	0	0	10	0	0	0	5	6	0	2	1	0	2	6	7	6	8	3	8	6	0	1	0	4	0	6	2	91		
	P33: Malawi Teachers Salima FG .rtf	0	6	0	0	9	0	0	0	4	0	0	0	0	0	6	5	5	6	4	3	3	3	0	1	2	1	2	1	7	1	72	
Total Malawi		1	11	3	10	75	0	7	19	48	27	14	6	23	8	27	45	51	48	58	49	58	45	19	20	2	27	1	46	11	759		
Total Kenya, Malawi and Zambia		43	112	47	37	334	17	25	76	177	127	61	37	41	27	132	157	251	165	205	147	311	192	53	118	72	125	36	225	69	3479		

Table 2: Codes- Primary Documents Table

Table 2 shows summarised results of coded data for Kenya, Malawi and Zambia showing how they were grounded and their density. Density in this case refers to the way the categories related with each other.

Code in Interview	Grounded (33 PD)			Total Grounded	Density
	Kenya (13 PD)	Malawi (8 PD)	Zambia (12 PD)		
Characteristics of CPD acting on the teachers	102	75	157	334	16
Insufficient Ownership	148	58	105	311	2
INSET Support structure	102	58	105	265	0
Image of INSET	121	51	79	251	2
Teacher Professional Growth	86	46	93	225	3
Internal Socio-economic demands determined by demographic and Cultural factors	77	45	70	192	4
Education Structures determined by Political systems	72	48	57	177	5
In-country trends	60	48	57	165	8
Historical Perspective	54	45	58	157	3
INSET Gap	48	49	50	147	2
Half-baked teacher	53	27	52	132	0
Existing Teacher Professional Growth	62	27	38	127	2
Policy changes towards INSET	60	27	38	125	3
Look back Re-determine Course Approach	40	20	58	118	2
Anticipated Teacher Professional Growth	43	11	58	112	2
Donor Influence	53	19	4	76	3
Owned and Sustained CPD INSET	55	2	15	72	6
Top down effects	37	11	21	69	3
External Support by Cooperating Partners	43	14	4	61	4
International Trends	29	19	5	53	7
Bottom up	28	3	16	47	3
Academic Qualification Improvement	21	1	21	43	0
Forward and Parallel Approach	12	23	6	41	2
Cascade INSET	19	10	8	37	3
Financial Gain	26	6	5	37	0
Sustainability	27	1	8	36	0
Global & Regional protocols eg. EFA, MDG, ADEA, SMASE, TICAD	16	8	3	27	5
Cluster INSET	8	7	10	25	2
Characteristics of good teachers	15	0	2	17	0

Table 3: Code distribution in total Sample of Kenya, Malawi and Zambia

The table shows the number of times each code was mentioned in each country. A gradual trend is observed. Take for instance the first code: Characteristics of CPD acting on teachers was coded 102, 75 and 157 on the Kenyan, Malawi and Zambia data respectively. A similar characteristic was observed in all data codes.

Table 4 shows the ranking of percentage code distribution based on total sample (Kenya Malawi and Zambia). This indicates how each code is ranked in the total sample code.

As shown in the table below the top five codes in each country of code ranking based on total sample are Characteristics of CPD acting on the teachers (9.6%), Insufficient Ownership (8.9%), INEST Support Structure (7.6%), Image of INSET (7.2%) and Teacher Professional Growth (6.5%).

Code Ranking Based on Total	Total Kenya	Total Zambia	Total Malawi	Overall (Total Kenya, Malawi and Zambia)
Characteristics of CPD acting on the teachers	6.7%	13.1%	9.9%	9.6%

Code Ranking Based on Total	Total Kenya	Total Zambia	Total Malawi	Overall (Total Kenya, Malawi and Zambia)
Insufficient Ownership	9.8%	8.7%	7.6%	8.9%
INSET Support structure	6.7%	8.7%	7.6%	7.6%
Image of INSET	8.0%	6.6%	6.7%	7.2%
Teacher Professional Growth	5.7%	7.7%	6.1%	6.5%
Code ranking based on Kenya	Total Kenya	Total Zambia	Total Malawi	Overall (Total Kenya, Malawi and Zambia)
Insufficient Ownership	9.8%	8.7%	7.6%	8.9%
Image of INSET	8.0%	6.6%	6.7%	7.2%
Characteristics of CPD acting on the teachers	6.7%	13.1%	9.9%	9.6%
INSET Support structure	6.7%	8.7%	7.6%	7.6%
Teacher Professional Growth	5.7%	7.7%	6.1%	6.5%
Code Ranking Based on Zambia	Total Kenya	Total Zambia	Total Malawi	Overall (Total Kenya, Malawi and Zambia)
Characteristics of CPD acting on the teachers	6.7%	13.1%	9.9%	9.6%
Insufficient Ownership	9.8%	8.7%	7.6%	8.9%
INSET Support structure	6.7%	8.7%	7.6%	7.6%
Teacher Professional Growth	5.7%	7.7%	6.1%	6.5%
Image of INSET	8.0%	6.6%	6.7%	7.2%
Code Ranking Based on Malawi	Total Kenya	Total Zambia	Total Malawi	Overall (Total Kenya, Malawi and Zambia)
Characteristics of CPD acting on the teachers	6.7%	13.1%	9.9%	9.6%
Insufficient Ownership	9.8%	8.7%	7.6%	8.9%
INSET Support structure	6.7%	8.7%	7.6%	7.6%
Image of INSET	8.0%	6.6%	6.7%	7.2%
INSET Gap	3.2%	4.2%	6.5%	4.2%

Table 4: Code Ranking Based on each Country (Kenya, Malawi and Zambia)

However, in all the three countries although the position order of ranking was different for the top four codes namely; Characteristics of CPD acting on the teachers, Insufficient Ownership, INSET Support structure and Image of INSET were mentioned to be among the top except in Malawi where the code of Teacher Professional Growth was replaced by the code INSET gap. Figure 5.2 shows the graph ranking of percentage code distribution of each item in total coded sample (Kenya, Malawi and Zambia). The results give an indication that in general there was no major difference in level of code percentages across the countries. Except in a few cases such as academic qualification and sustainability in Malawi, donor influence and international trends in Zambia, all other codes followed a similar pattern across the countries. These data therefore give this research strength that irrespective of country status and cultures, the issues bordering on INSET are similar.

Discussion

According to Bryant and Charmaz (2007), GT strategies allow for imaginative engagement with data that simple application of a string of procedures precludes. This engagement with data creates a space where the unexpected can occur; thus, unexpected events and experiences may emerge. Emergent cat-

egories arise from the researcher's skill in defining these new properties through the successively more analytic comparative processes of comparing data with data, data with code, code with code, code with category and category with category. Grounded theorist can build on an epistemologically sophisticated view of emergence that allows for possibilities of emergent categories in the practice of theorizing. Therefore, the discussion in this section will follow the grounded theory approach in which theoretical concepts generated will be clarified. Based on the results, two broad theoretical concepts emerged from the data and these are:

1. The Image of Teacher Professional Growth
2. The Image of INSET and Types of interventions

Theoretical Concept 1: The Image Of Teacher Professional Growth

Table 5 shows the 29 codes identified in the interviews. Of these some codes are aligned to theoretical concept 1 on the image of Teacher Professional Growth. Those found in the interview data in the three research countries included; Anticipated Teachers Professional Growth, Characteristics of CPD acting on the teachers, Existing teacher professional growth, Half-baked Teacher and Teacher Professional Growth. This is to say that a lot of issues are associated with the teacher professional growth. Of these, the Characteristics of CPD acting on the teachers and Teacher Professional growth were found to be among the top five with 9.6% and 6.5% respectively in the total code sample. The way the codes related with each other in the process of creating density is as shown in Table 5. This was done by the researcher during the coding process during when developing density. The output was run after analysis and gave the results.

Code	<is associated with>	<is caused by>	<is part of>
<i>Anticipated Teachers Professional</i>		Owned CPD and Sustained INSET	Teacher Professional Growth
<i>Characteristics of CPD acting on the teachers</i>	<ul style="list-style-type: none"> • Forward and Parallel Approach • In-country trends • Look back Re-determine Course Approach • Owned CPD and Sustained INSET • Image of INSET • International Trends 	<ul style="list-style-type: none"> • Bottom up • Cascade INSET • Cluster INSET • Education Structures determined by Political systems • External Support by Cooperating Partners • Global & Regional protocols e.g. EFA, MDG, ADEA, SMASE, TICAD • INSET Gap • Insufficient Ownership • Internal Socio-economic demands determined by demographic and Cultural factors 	

Code	<is associated with>	<is caused by>	<is part of>
		<ul style="list-style-type: none"> Top down effects 	
<i>Existing teacher professional growth</i>		Owned CPD and Sustained INSET	Teacher Professional Growth
<i>Half-baked Teacher</i>			
<i>Teacher professional growth</i>			<ul style="list-style-type: none"> Anticipated Teacher Growth Path Existing Teacher Growth path Owned CPD and Sustained INSET

Table 5: Codes in the Interviews Related to the Image of Teacher Professional Growth

Theoretical Concept 2: The Image Of INSET And Types Of Interventions

Imaging something on the mind of the implementer or beneficiary is very crucial for it to be effectively implemented. This is also true for INSET as such affects the type of interventions. Similar to the earlier discussion other codes identified in the sample are aligned to theoretical concept 2 on the image of INSET and types of interventions. These include codes such as; Image of INSET, INSET Support structure, Insufficient Ownership, Donor Influence, Historical perspective, In-country trends, Internal Social and economic demands determined by demographic and cultural factors, International trends, Owned and sustained CPD among others. This shows that a lot of issues are intertwined in the image of INSET hence affecting the types of interventions.

The way the codes related with each other in the process of creating density is as shown in Table 6.

Code	<is associated with>	<is cause of>	<is caused by>	<is part of>
<i>Image of INSET</i>	Characteristics of CPD acting on the teachers	In-country trends		
<i>INSET Support structure</i>				
<i>Insufficient Ownership</i>		Characteristics of CPD acting on the teachers	INSET Gap	
<i>Donor Influence</i>	Global & Regional protocols eg. EFA, MDG, ADEA, SMASE, TICAD	In-country trends		International Trends
<i>Historical perspective</i>	<ul style="list-style-type: none"> In-country trends International Trends Policy changes towards INSET 			
<i>In-country trends</i>	<ul style="list-style-type: none"> Characteristics 	<ul style="list-style-type: none"> Policy 	<ul style="list-style-type: none"> Donor In- 	<ul style="list-style-type: none"> Education

Code	<is associated with>	<is cause of>	<is caused by>	<is part of>
	<ul style="list-style-type: none"> tics of CPD acting on the teachers • Historical Perspective • 	<ul style="list-style-type: none"> changes towards INSET • 	<ul style="list-style-type: none"> fluence • Image of INSET 	<ul style="list-style-type: none"> Structures determined by Political systems • Internal Socio-economic demands determined by demographic and Cultural factors
<i>Internal Socio-economic demands determined by demographic and cultural factors</i>	<ul style="list-style-type: none"> • Global & Regional protocols eg. EFA, MDG, ADEA, SMASE, TICAD • Education Structures determined by Political systems 	<ul style="list-style-type: none"> • Characteristics of CPD acting on the teachers • 		<ul style="list-style-type: none"> • In-country trends
<i>International trends</i>	<ul style="list-style-type: none"> • Cascade INSET • Characteristics of CPD acting on the teachers • In-country trends Historical Perspective 			<ul style="list-style-type: none"> • Donor Influence • External Support by Cooperating Partners • Global & Regional protocols eg. EFA, MDG, ADEA, SMASE, TICAD
<i>Owned and sustained CPD</i>	<ul style="list-style-type: none"> • Forward and Parallel Approach • Look back Re-determine Course Approach • Characteristics of CPD acting on the teachers 	<ul style="list-style-type: none"> • Anticipated Teacher Growth Path • Existing Teacher Growth path • 		<ul style="list-style-type: none"> • Teacher Professional Growth •

Table 6: Codes in the Interviews related to the Image of INSET and Types of Interventions

Conclusion

With the use of ATLAS.ti to produce a set of results, which indicated that the teachers' professional growth through CPD and the INSET system was not well coordinated in the three countries studied. Those wishing to address the concerns of teachers in the area teachers' professional growth in the education sector would benefit from this finding.

On the other hand, Kenya, Malawi and Zambia can learn from Feiman-Nemser (2001, p. 1014) who say that the quality of our nation's schools depends on the quality of our nation's teachers. [...] If we want schools to produce more powerful learning on the part of students, we have to offer more powerful learning opportunities to teachers. [...] Unless teachers have access to serious and sustained learning opportunities at every stage in their career, they are unlikely to teach in ways that meet demanding new standards for student learning or to participate in the solution of educational problems. The research found that the INSET systems for teachers CPD in Kenya, Malawi and Zambia impacted greatly on TPG.

The author's position on this matter is that for any system, intending to develop owned and sustained CPD/INSET, a number of factors should be considered:

- Political will through education policy on teacher professional growth;
- Clear and shared support structures and conducive environment learning from the case of Japan system of teacher education;
- Establishment and accumulation of subject-based practical wisdom and/or research (Baba and Nakai 2010) and locally based initiatives;
- Strengthening capacity at MOE level to act as a strong filter funnel of what goes into the education system;
- Long-term vision of teacher professional growth, which will take care of variations in age groups;
- Availability of teachers, as a potential source of wisdom to feed into the support structure of INSET;
- Creating a culture of willingness to learn by all players in teachers' professional growth.

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