

Special Education Teachers' Involvement in the 2013 Curriculum Development Process in Zambia: A Case of Selected Inclusive and Special Schools

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Abstract

In January 2014, the Ministry of Education in Zambia rolled out a revised curriculum in schools. A lot of literature especially in African countries reveals low involvement of teachers in curriculum development process. This study was conducted to establish the extent to which special education teachers were involved in the 2013 curriculum development and whether lack of involvement had implications on curriculum implementation for learners with special educational needs. One Hundred and thirty-four (134) respondents that included 120 special education teachers drawn from three provinces, 12 special education standards officers, and 2 curriculum specialists responsible for curriculum development in special education were involved. A mixed method approach informed by the Deliberative Curriculum Framework and the Critical Theory Paradigm was used. Teacher respondents answered questionnaires while Special Education Standards Officers and Curriculum Specialists were interviewed. Teacher observations were also conducted on selected teachers within the 120 sample.

Quantitative data was analysed using SPSS version 16.0 while NVIVO was used to analyse qualitative data. Results showed that special education teachers were not adequately involved in the development of the 2013 revised curriculum and they demonstrated limited understanding of the concept of curriculum adaptation, which is necessary for implementing of the curriculum to LSEs. The study recommends a deliberative cyclic training of teachers for special education to understand how to implement the curriculum to LSEs.

Key words: Curriculum, Involvement, Special Education Teachers, Inclusive Education

Introduction

Every country's education system is guided by a curriculum. A curriculum is defined as a sum total of all experiences pupils undergo (Bishop 1985, Igbokwe, Mezieobi, Eke 2014,) or the totality of experiences that a pupil receives through the manifold activities that go on in the school, the classroom, library, laboratory, workshop, playgrounds and in the numerous informal contacts between teachers and pupils" Taneja (2012:292). A curriculum touches the life of learners because it aims at developing them into responsible citizens. Brantlinger (2008) describes curriculum as a course of study while, Bishop (1985), and Taneja (2012) both explain that curriculum is beyond the courses of study, the subjects taught and syllabuses guiding learning. The United Nations Educational, Scientific and Cultural Organisation- International Bureau of Education- UNESCO-IBE (2013) identifies five types of curriculum namely the intended or specified curriculum, the implemented or enacted curriculum, the experienced curriculum, the hidden curriculum and the null curriculum.

Curriculum change is inevitable for as long as society keeps changing. . For as long as society changes, curriculum must equally change to respond to the changing needs of society. UNESCO-IBE (2013: 49) says, “the enhancement of educational quality and its relevance is the most prevalent agent of curriculum change. Increased access to education can be achieved through sound management, but access to quality education relies to a large extent upon high- quality curriculum”. Further, UNESCO-IBE (2013: 49) posits that curriculum change is generally driven by the need of nations to assert their identity and cultural heritage and to pursue their goals, as well as socio-political and economic aspirations. In reviewing its curriculum, Zambia saw several gaps in the curriculum that guided education prior to 2013. It was observed that the previous curriculum was overloaded with knowledge based, examinable content not suited for the 21st century. In response to this, the curriculum was revised in 2013 and the implementation process began in 2014. Zambia recognised that this process of curriculum renewal offered an opportunity to enhance her education quality through a revised curriculum of 2013.

In 2014, Zambia offloaded the 2013 revised curriculum that is offered through familiar local languages from preschool to Grade 4. Among the major introductions into the revised curriculum is the two tier career pathway involving the academic and vocational pathway, the introduction of major foreign languages, computers, entrepreneurship, life skills and early childhood education as subjects. With special reference to special education, the revised curriculum introduced braille and sign language as subjects for learners with visual and hearing challenges and for teachers training to teach such learners. The revised curriculum further states that learners with severe disabilities who would not benefit from an inclusive curriculum would have an alternative curriculum while other learners with mild and moderate impairments would

benefit from an adapted curriculum and adapted technology. In the Zambian history of special education development, the 2013 curriculum is major a breakthrough towards the provision of special education to Learners with Special Educational Needs (LSEs). This does not mean effort was not made prior to this document. Although the first education act was silent on special education provision, the decree by the first Republican President Dr Kenneth Kaunda to open a college for teachers of the handicapped in Lusaka was made in 1971. This was the first landmark decision that saw the 1977 education reforms and recommendations enshrining special education issues in the policy document. The 1977 education reforms and recommendations emphasised inter-ministerial cooperation, assessment, designing curricula and teaching materials, prescribing building specifications and providing professional supervision for LSEs (MoE, 1977).

The focus of the 1977 education policy on special education was to increase the presence of children with disabilities in education system and products of that included the birth of special education units in ordinary schools a major feature even to-day in their access to education. However, despite this progressive landmark in policy, the first curriculum structure of 1986 (Examinations Council of Zambia- ECZ, 1986) did not reflect the intentions of the 1977 policy. The 1986 structure of the New School Curriculum did not include special education. Zambia is a signatory to major world conventions on the rights of persons with disabilities and has been an active participant at world conferences that have influenced the provision of education for LSEs. One of the world conferences that inspired Zambia's support for inclusive education from a human rights perspective was the 1994 Salamanca conference in Spain (Ministry of General Education, 2016). Zambia has progressively improved her education policies from the 1992, *Focus on Learning* to the 1996, *Educating our Future* policy which promotes the concept

of inclusive learning. Since then, Zambia has progressively improved her education policies. In 1992, there was a clear focus on learning (Ministry of Education-MoE, 1992) and in 1996, the policy titled *Educating our Future*' (MoE, 1996) became the first elaborate Zambian education policy to promote the concept of inclusive learning. The 2000 Basic School Curriculum Framework presented special education as a cross cutting issue. It gave teachers the responsibility of adapting their teaching methods in order to respond to pupils' strengths and weaknesses (MoE, 2000). However, the 2013 curriculum has provided a more comprehensive education road map for teaching LSENs.

Despite all the progressive curriculum changes that have taken place over the past years, teacher involvement generally, and specifically for special education teachers, in Zambia, has not been thoroughly documented through research, a gap this study needed to cover. A few recent studies on curriculum involvement reveal the same trend. Katende (2014), in a study of stakeholders' perspectives on the process of re-introduction of primary-secondary school structure in selected basic schools of Solwezi District found that stakeholders such as head teachers, Non-Governmental Organisations , parents were not consulted and sensitized about the change. According to Katende (2014), the re-introduction of the Primary-secondary school structure was being implemented using the top-down approach. Nambela, (2016) did an evaluative study of the effectiveness of the Revised 2013 Curriculum on the Provision of Quality Secondary Education in Selected Schools in Kitwe District. She established that the implementation of the revised curriculum was properly done because teachers were not well prepared and had inadequate teaching and learning resources to implement the change. According to Nambela (2016), teachers were neither trained nor retrained to teach newly introduced subjects. Mwanza (2017) argues that although CDC claims to use

consultative and participatory approaches of involving teachers in curriculum development through subject teacher panels, but there is no empirical evidence to support this claim. According to Mwanza (2017), secondary school teachers in Lusaka were dissatisfied with their involvement in the 2013 curriculum development process because they were insignificantly involved. Of all these studies, none looked at whether special education teachers were involved in the CPD or not.

Statement of a Problem

On paper, in Zambia, all necessary documents guiding education are in place. Education policies are published, the Revised Curriculum Framework 2013 is published with sound recommendations about how special education would be provided in Zambia, and the curriculum began to be implemented in schools in January 2014. However, some stakeholders expressed dissatisfaction about the revised curriculum implying that they were not part of certain policy pronouncements such as the Familiar Language of Instruction (Zambian eye 2014, Lusaka Times, 2014). Dissatisfaction with some policy statements concerning the curriculum may mean that those dissatisfied do not accept or endorse the policy and delineate themselves from being part of its making. With literature revealing that teacher involvement in curriculum development especially in most African countries has been very low and mostly characterised by a top down model (Carl 2012, Muricho & Chang'ach 2013, Oloruntegbe 2011, Bonyo 2012), curiosity was aroused to reflect on special education teachers (SETs) involvement in the 2013 Curriculum Development Process (CDP) in Zambia. Since the introduction of the 2013 curriculum, it was not known the extent to which SETs were involved in the CDP. Teacher involvement in curriculum development is cardinal for it to realise its aims, goals

and objectives. A very strong relationship exists between teacher involvement in curriculum development and the efficacy of its implementation. This study was therefore conducted to establish the extent to which SETs were involved in the 2013 CDP in selected special and inclusive schools in Zambia. An analysis was made to relate the implications of the extent of SETs involvement in CDP on curriculum implementation.

Purpose of the Study

The purpose of this study was to establish whether SETs were involved in the 2013 CDP in Zambia. SETs involvement in curriculum development is cardinal in that they are the ones that implement the curriculum to learners in the classroom situation. Their involvement facilitates the understanding of what is expected to be implemented. The following assumptions were made about SETs involvement in the 2013 curriculum development in Zambia. If SETs were involved in the CDP in Zambia, they should;

1. Be aware that curriculum change occurred in Zambia
2. Have a copy of the 2013 curriculum framework
3. State the stages of curriculum development at which they were involved
4. State the extent of their involvement at the different stages of the 2013 CDP.
5. Be aware about the key contents in the 2013 curriculum framework that relate to LSENs such as;
 - Being aware that the curriculum needed to be adapted to meet the learning needs of LSENs.
 - Understanding the concept of curriculum adaptation and the use of the IEP to implement the curriculum

Three main research questions were used in the study. These were:

- (i) To what extent were SETs involved in the 2013 curriculum development in Zambia?

- (ii) Were SETs from the three sampled provinces equally involved in the 2013 curriculum development process in Zambia?
- (iii) What are the implications of SETs' lack of involvement in CDP, if at all they were not involved, on curriculum implementation for LSEs?

Theoretical Framework

This study was guided by Craig Kridel's (2010) Theoretical Framework of curriculum deliberation. Kridel (2010:204) argues that:

“Curriculum development has a component that deals with issues of implementation and deliberation. Good implementation requires the main agents of the curriculum to be in general agreement with the normative tasks at hand and to have resources, time and the insight to complete their work while also understanding that their work is rooted in an ongoing evaluative effort to improve the school experience.”

Group deliberation is the emphasis in curriculum development. In this arrangement, participants in the operation of the school are involved in ongoing discussion and debate over what needs to be done. In this particular case, curriculum would not be viewed as a technocratic process because then if it is viewed as such, it would act as a manual for instructions written by agents outside the school community and the educational situation. There are advantages of a curriculum that is developed on the premise of deliberation. Where deliberation prevails, curriculum is necessarily kept connected to the peculiarities of the local situation. Group deliberations also have the potential to have a democratic dividend, giving the curriculum the benefit of drawing

ideas from the multiple perspectives of expertise and experience. When such a culture is embraced, key players in the CDP would be teachers and they would take this as a practical position of the school curriculum because their part in determining it is identifiable. From this theoretical understanding of curriculum development, the teacher is a critical and crucial stakeholder in CDP. He or she is at the centre of not only designing the curriculum, but implementing it as well. It therefore calls for teachers' involvement in curriculum process.

Literature Review

Teacher involvement in curriculum development is important because teachers have to understand the change they are required to implement. There are usually negative connotations to a curriculum that is imposed on teachers to implement. Alsubaie (2016:106) notes that "if another party has already developed the curriculum, the teachers have to make an effort to know and understand it." For as long as teachers are not involved in curriculum development, the curriculum cannot be owned and its failure cannot be blamed on the teachers. (Halinen 2007, Organisation for Economic Cooperation and Development - OECD 2013) explains that teachers are experts with autonomy in planning and deciding their work. They deserve to be not only part of the CDP but also need to own it. However, teacher involvement in curriculum development in most countries especially African countries has been tagged to be very low. Ahmadi, (2015) observed that in Nigeria, among the many factors affecting secondary school curriculum implementation is the non -involvement of teachers in decision making and curriculum planning. Oloruntegbe (2011), in a study of 630 teachers regarding involvement, commitment and innovativeness in curriculum development and implementation in Nigerian schools, 61.5 percent said teachers had never been

involved while 38.4 percent agreed to having been involved. A study conducted to ascertain teacher involvement at the different stages of the 2003 curriculum change in South Africa reported that teachers were less involved at design stage (Ramparsad 2010). This is against the background that teachers are responsible for the enactment of the curriculum. Without a clear rationale for the design of the curriculum or an opportunity to discuss it with those who designed it, it is unlikely that the implementation of the curriculum would be well aligned with the original curriculum intentions. Teachers evaluate the curriculum every day when they are planning to teach, and assess their learners' progress. They understand the weaknesses of the curriculum. But such facts are mostly ignored in curriculum design in many African countries. Abudu, (2015) in a study of basic school teachers' perceptions about curriculum design in Ghana found that the level of involvement of teachers in the process was very low. Abudu (2015) further found that teachers had huge workloads, lacked expertise, faced problem of inadequate funding as some of the challenges that hindered their participation in the CDP. Bao Duy (2016) reported that out of 98 respondents in the Mekong Delta, only 32 (n=33) participated in CDP against 66 (67%) who did not. In Kenya, a top down model of curriculum design was condemned by Bonyo (2012) where it was observed that the Kenyan education reforms did not involve the grassroots.

However, in countries where curriculum development highly involved teachers, teachers reported high levels of performance and ownership of the curriculum they implement. Teachers that are well prepared to implement curriculum exhibit high levels of confidence. For instance, Rout, (2013) reported that ICT programmes accorded to teachers at Kendriya Vidyalaya in India resulted in the teachers' high levels performance in operating basic and advanced ICT skills from opening and shutting down of a computer to word processing, PowerPoint and Microsoft

excel processes for generation of graphs, bar diagrams and histograms among many. In Finland, teachers have the autonomy to plan and decide their own work (Halinen 2007, OECD 2013). This autonomy is largely created through a process of highly training and preparing the teacher to take responsibility of their profession. For instance, OECD (2013) says, teachers in Finland are trained to adapt their teaching to different learning needs and styles of students. Teachers are prepared in theory and practical content with a research component and teaching practicum on their part. According to Pierangelo & Giuliani (2008), curriculum adaptation is vital if learners with disabilities are to achieve or surpass the learning outcomes set in the curriculum. One of the strategies for effective implementation of the curriculum to learners, especially, with special needs is the application of the Individualised Education Plan (IEP). Failure to prepare teachers in such very important professional skills leads to ineffective curriculum implementation. Emphasis on high qualifications and competences for teachers are crucial to effective curriculum implementation. Netherlands equally and the Nordic countries place high teacher qualifications to be a requirement to implement the curriculum thoroughly.

Methods and Material

This study adopted a mixed method design to collect data. Thus, the study collected both quantitative and qualitative data. The adoption of both approaches to study involvement of SETs in curriculum development is founded on the Liberatory Framework or Critical Theory philosophy that says that there are multiple possible realities that are dependent on social, political and economic contexts, further arguing that, “moral value should form the impetus for research and that research should seek to improve the lives of persons who have little social

power and have been marginalised by more powerful groups in their societies.” In essence, the goal of advocacy or liberatory researchers is liberation through knowledge gathering (Lodico, Spaulding & Voegtle 2006: 8). This knowledge gathering is better solidified through an approach that collects information by means of mixed methods. Reliance on one method may leave out certain necessary realities.

Data was collected and analysed using the Convergent Parallel Mixed Methods Design. In a convergent parallel mixed methods design, both quantitative and qualitative data are collected side by side and later compared for similarities and possible differences. In this study, semi structured questionnaires were administered on 120 SETs while unstructured interviews were conducted on twelve (12) special education standards officers and two (2) curriculum specialists responsible for special education. The total sample was 134. Twelve (12) lesson observations were conducted on some teachers within the 120 sample. Table 1 below shows the demographic characteristics of teacher respondents that participated in the study.

Table 1: Characteristics of Teacher Respondents

<i>Characteristic</i>	<i>Category</i>	<i>Frequency</i>	<i>Percentage</i>
Provinces	Lusaka	40	33.3
	Southern	40	33.3
	North Western	40	33.3
	TOTAL	120	100
Positions	Class teacher	103	85.8
	Senior Teacher	11	9.2
	Deputy Head	2	1.7
	Head Teacher	3	2.5
	Other	1	0.8
	TOTAL	120	100
Qualifications	Certificate in SE	4	3.3
	Diploma in SE	45	37.5
	Degree in SE	25	20.8
	Masters in SE	11	9.2
	Not trained in SE	35	29.2
	TOTAL	120	100
Nature of school where teachers were teaching	Special school	62	51.7
	Inclusive school	39	32.5
	Special unit	18	15
	Hospital unit	1	0.8
	TOTAL	120	100

The use of different instruments was to collect rich data and to ensure validity and reliability of data. The sampling methods used were simple random sampling for the quantitative data and purposive sampling involving extreme case and snowball sampling for the qualitative part of the study. Simple random sampling was applied on the selection of SETs in order to give them an equal chance of participation in the study. Thus, at each

school, SETs picked numbers (from a box) that were tagged to participate in the study. Extreme case sampling was applied on curriculum specialists responsible for special education and ESOs to collect qualitative data because they possess experience in curriculum design, development and implementation. Snowball sampling was only applied as an alternative in cases where the researchers were redirected by some ESOs to other ESOs who they felt had more information on the 2013 CDP.

This study adopted the convergent mixed methods design. Osborne (2008) and Creswell (2014) explain that in parallel mixed methods design, data analysis is done separately and the results compared thereafter. Drahos (2016:82) also explained that data collected using different methods cannot simply be added together to produce a unified reality. The analysis of data needs to be integrated and made sense of in relation to each other. However, Creswell (2014) further explains that in this type of analysis researchers can analyse the data side by side or merge the two data bases by transforming or changing the qualitative codes or themes into quantitative variables, a procedure he called transformation. In this study therefore, the researcher analysed the data side by side and by way of transformation. The side by side analysis may mean analysis of one type of data set (quantitative first) and later qualitative after which the comparisons and relations between the data sets are made to make interpretations. It also means that as the researcher looks at certain variables in quantitative data, similar variables are also compared from the qualitative perspective. However, the transformation type of analysis involves transforming what may be qualitative data into quantitative analysis. For instance, qualitative responses can be counted and coded for quantitative analysis. Connolly (2007) postulates that qualitative answers can be translated into codes for quantitative analysis. Thus, data was analysed as quantitative first and later qualitative but some qualitative data collected through

the questionnaires was transformed into quantitative variables and analysed in a transformative manner. The quantitative data was analysed with the help the statistical package for social sciences (SPSS) to derive frequencies, percentages, means and standard deviations, significant differences and data associations. The significant differences and associations were used to compare involvement of respondents from different provinces from where respondents were selected. They were also used to determine relationships between teachers that were qualified in special education and those that were not with the ability to use certain strategies during curriculum implementation. Qualitative data was analysed with the help of NVIVO pro version software. NVIVO helped to organise themes and code them for density, word similarity and frequency analysis. Data was then compared to make conclusions.

Results and discussion

Special Education Teachers Involvement in CDP

Before finding out the extent of involvement, respondents were asked for preliminary information on whether they were aware about the curriculum change, whether they had a copy of the revised curriculum framework and whether they were aware about adapting the curriculum to meet the learning needs of LSEs. The results were compared among provinces to establish whether there were differences in the manner the 2013 curriculum was developed and subsequently implemented. Significant differences among provinces would mean the CDP was one sided in implementation. The comparison further helped to ascertain the validity of the responses from different regions about the same curriculum. Table 2 shows the results of the initial questions on involvement in CDP.

Table 2: Cross Tabulation Comparison of how Respondents were Involved in CDP in the three provinces ('N' per province=40; Total 'N' = 120)

S/N	Characteristic	Province	Frequency & Percentage					
			Yes	%	No	%	Total	%
2.1.	Awareness about curriculum change	Lusaka	39	97.5	1	2.5	40	100
		Southern	37	92.5	3	7.5	40	100
		North Western	39	97.5	1	2.5	40	100
		Total	115	95.8	5	4.2	120	100
	<i>p value</i> =.434							
2.2.	Having a copy of the Curriculum Framework (Missing value = 1)	Lusaka	20	50	20	50	40	100
		Southern	25	62.5	15	37.5	40	100
		North Western	19	48.7	20	51.3	39	100
		Total	64	54	55	46	119	100
	<i>p value</i> = .395							
2.3.	Being aware that the curriculum needs to be adapted	Lusaka	34	85	6	15	40	100
		Southern	35	87.5	5	12.5	40	100
		North Western	32	80	8	20	40	100
		Total	101	84	19	16	120	100
	<i>p value</i> =.646							
12.4.	Involvement in CDP	Lusaka	3	7.5	37	92.5	40	100
		Southern	3	7.5	37	92.5	40	100
		North Western	2	5	38	95	40	100
		Total	8	6.7	112	93.3	120	100
	<i>p value</i> = .875							

Source: survey data * significant at 0.05 level

From table 2, results show that SETs were aware about the curriculum change. They were also aware that the curriculum needed to be adapted to suit the needs of LSENs. However, some SETs had a copy of the curriculum framework (64; 54%) while others did not have (55; 46%). There were no significant differences in responses from the three provinces where respondents were drawn from. For instance, the Chi Square test results ($\chi^2 (2, N = 120) = 1.67, p > .05$) indicate that there were no significant differences in terms of awareness about the change between provinces. Basically, SETs were aware about the change although this did not signify that they were involved in the development of the curriculum. On whether SETs had a copy of the curriculum framework or not (table 2.2), results showed there were no significant differences between provinces at ($\chi^2 (2, N = 119) = 1.86, p > .05$). Possession of that copy is first evidence of awareness and knowledge of the contents of the curriculum. The curriculum framework copy is a reference resource that all teachers are supposed to have in order to read and understand the curriculum content. However, not all teachers had the copy of the revised curriculum framework. This is a very important document that every teacher must have in order to acquaint themselves with the new concepts for implementation. Since there was a large percentage of SETs (55; 46%) that did not have a copy of curriculum framework, it is likely that such teachers do not understand the change and what needs to be implemented. The results are similar to what Bantwini & Diko (2011) established in South Africa that teachers did not have the policy documents even six years after the launch of the RNCS. Further, Hussain, Azeem, & Shakor, (2011) found that even though there were a number of positives in CDP in Punjab and Islamabad, teachers' guides were not available for guiding teachers, and special teacher services for students with special needs were not worked before launching. The lack of key documents necessary for curriculum

implementation means that teachers have to guess what and how to implement the curriculum.

On the question to establish whether SETs were aware that they were obligated to adapt the curriculum to teach LSENs, no significant differences were reported by the Chi square test ($\chi^2 (2, N = 120) = 0.88, p > .05$). Most respondents from all the three provinces were aware about their responsibility to adapt the curriculum. The MoE (2000) requires teachers to adapt the teaching methods to meet the learning needs of LSENs.

However, when the general question about whether SETs were involved in the CDP was asked, the results show an overwhelmingly “NO” response, i.e. 93.3% saying they were not involved in the process. The results showed ($\chi^2 (2, N = 120) = 0.27, p > .05$). Thus, there were no significant differences in the responses by respondents from the three provinces.

The table 3 shows responses about respondents’ rating of involvement at different stages of CDP.

Table 3: Comparing involvement at different Stages by provinces (N =120)

Stage At Which Sets Were Involved	Rating Levels Of Involvement	
Planning Stage <i>p-value = .211</i>	Very much	4
	Much	3
	Not much	11
	Not involved	02
Creation Stage <i>p- value = .236</i>	Very much	2
	Much	6
	Not much	15
	Not involved	95
Implementation <i>p - value=.017</i>	Very much	42
	Much	22
	Not much	20
	Not involved	34
Reflection Stage <i>p -value = .133</i>	Very much	15
	Much	13
	Not much	19
	Not involved	70

Source: Survey Data

* significant at 0.05 level

From table 3, the results show that generally SETs were not involved at most stages of the CDP except at implementation. For instance, at planning stage, the results show that SETs were not involved (102; 85%). When responses were compared according provinces, the Chi- square test showed no significant differences at ($\chi^2(6, N = 120) = 8.39, p > .05$). Thus, from the three provinces, there were higher percentages of respondents indicating that they were not involved at planning stage.

At creation stage, respondents from the three provinces were not involved, ($\chi^2(6, N = 120) = 8.03, p > .05$). The Chi square shows no significant differences. Overall percentage results show that 95 (79%) SETs from all provinces were not involved at creation stage.

The results show that SETs were involved at implementation level but with significant differences at ($\chi^2 (6, N = 118) = 15.52, p < .05$). The p value = .017 shows there were significant differences in the level of involvement at implementation stage in the three provinces. The strength of the relationship is ($\phi = .363$), thus medium – large. According to Cohen, Manion & Morrison (2005), correlations ranging from 0.35 to 0.65 are statistically significant beyond the 1 percent level and can be used for predictions. Literal percentage analysis shows generally that teachers were involved at implementation stage. When the categories, ‘very much involved’ and ‘much involved’ were added, the mean frequency of involvement at implementation was (64, 54.2%). A fraction of teachers were involved but not much at (20; 17%) while another fraction; 22 (18%) were not involved at this stage.

At reflection stage, the results showed that SETs were not involved as well. There were no significant differences in the results from different provinces. The Chi square calculation showed ($\chi^2 (6, N = 117) = 9.80, p > .05$). Most SETs (70; 58%) said they were not involved at reflection level.

Qualitative data from Education Standard Officers (ESOs) also shows that SETs’ involvement in the 2013 CDP was minimal. The general view from ESOs was that teachers were mainly involved at implementation stage and not at planning and creation stages. One of the ESOs said,

“okay...yaa well for the teachers, the only involvement that I know is that except again none of our teachers with a bias towards special education has been involved in the developing materials.” Participant 9, ESO; 19.07.2017, 13: 00 hours

Other responses were;

“No the teachers for special education I think I didn’t see any being involved”, (Participant 12. ESO Friday 14/07/2017 16:00 HRS)

“I know the answer I will give may not be the same as in other provinces. Most of our teachers were not mostly involved, because if as standards officers we were not involved at that stage, I doubt if teachers were involved.” (Participant 7, ESO; Monday 10TH July 2017 16:00 Hours)

“What is coming out in the field is that very little was done to involve people, may be the people who were involved did it and then after wards they thought of involving those in special education. Iyeah but it is doing very well for these learners without hearing impairment or without disabilities, literally meaning, it seems it was meant for those learners not necessarily special education may be those for special education needs it came as an afterthought yes.” (Participant 3, ESO; Monday 16th January 2017)

The findings confirm the quantitative data that SETs were not involved at stages such as planning, creation and reflection although they were involved at implementation stage, which is perceived as their core duty.

Understanding the contents of 2013 curriculum framework.

The results show that largely, SETs were generally not involved in the CDP although by nature of their jobs; SETs were implementing the same curriculum. Lack of involving key stakeholders such as teachers in CDP has its own implications. When teachers as key stakeholders are inadequately or not involved in the CDP, their understanding of the change becomes limited. The implementation process is likely to suffer because teachers would be left to depend on the knowledge they acquired during training at colleges and universities alone, which may be inadequate.

Do SETs Understand the concept of Curriculum Adaptation?

From the results of this study, it appears the lack of SETs' involvement in the 2013 curriculum development had serious repercussions on their understanding of the concept of curriculum adaptation. For instance, when the concept of curriculum adaptation was assessed and graded, the results showed very low understanding of what curriculum adaptation for LSEs means. Table 3 shows results of teachers understanding of the concept of curriculum adaptation for LSEs:

Table 4: Means and Standard Deviations about understanding of curriculum adaptation compared among provinces (N=120)

Characteristic	Category	Mean	N	Std. Deviation
	Lusaka	25.475	40	24.09488
	Southern	18.5	40	18.47382
	North Western	33.75	40	21.91914
	Total	25.9083	120	22.33285

The results show a mean grade of 26% obtained by respondents from all the provinces with most them circulating around the mean with a standard deviation of 22.33, which means that when the standard deviation is added or subtracted to and from the mean, the results show that the highest was still below average grade of 50% (i.e. 48) while the lowest would be at 4 which is too low to imagine about the quality of a teacher who does not understand what curriculum adaptation is. Lack of understanding the concept of curriculum adaptation means SETs were not able to implement the curriculum when teaching LSEs. The following responses were sampled as SETs' definitions of the concept of curriculum adaptation;

- *“Familiarising with the curriculum”* Lusaka
- *“Fitting in with the curriculum”* Lusaka

- “*changing the syllabus and following the revised curriculum*” Southern
- “*Is just accept the curriculum the way it has come*”. Southern
- “*Changing from the old to the revised curriculum*” Southern
- “*formulating the curriculum according to the changes taking place*” North Western
- “*New knowledge of teaching*” North Western
- “*is the accepting the change in the curriculum*” North Western

The above definitions from SETs are incorrect. Although this lack of understanding may also be related to inadequate training of SETs, it appears the CDP did not prepare SETs in terms of training in the 2013 curriculum. Any revised curriculum should be followed by training of the implementers so that they are equipped fully with the contents of the revised curriculum.

Further, even at policy level, gaps seem to exist in the way the Ministry of General Education officials also understand the concept of curriculum adaptation. For instance, an interview with one of the Ministry officials revealed that the concept of curriculum adaptation for LSENs was reduced to mean translating books into braille or sign language for learners with visual impairment and hearing impairments respectively. One of the ESOs said,

“the adaptation which is there, they are just translating, not that we are changing anything, if they are any changes we are actually following the same changes which are there for the ordinary learners”. (Participant 3, ESO; Monday 16th January 2017).

Another participant said;

“Unfortunately what is happening is, the adaptation which we have talked of is just translating being done by CDC. The teachers who are coming from universities and colleges

of education they have not been taught how to handle these children to say, if you are teaching this topic, you handle them this way.” Participant 8, ESO; Monday 16th January 2017.

Reducing the understanding of the concept of curriculum adaptation to translation of books reduces the learning expectations for learners with different challenges. Further, failure to involve SETs, who are implementers of the curriculum, in the CDP leaves them ignorant about the whole change that took place. This study results are similar to Ntumi (2016), who found that among the challenges of preschool teachers in implementing the preschool curriculum in the Cape Coast Metropolis was teachers’ failure to understand the ECC curriculum itself. Just as Alsubaie (2016:106) noted, “if another party has already developed the curriculum, the teachers have to make an effort to know and understand it”.

Were SETs able to apply the IEP during the Implementation the Curriculum to Learners with Special Educational Needs?

The other implication of not involving SETs in the CDP is that teachers failed to realise the significance of the individualised education programme and how it could be used to implement the revised curriculum in teaching LSEs. In any case, some teachers confused the concept of IEP and IEA (individualised education activities). The IEP is a very important strategy for effective implementation of the curriculum to LSEs. Thus, SETs are expected to know how to prepare the IEP and apply it as they implement the curriculum. SETs need to demonstrate knowledge of the components of an IEP and how it is implemented. According to MoGE (2016:5) an individualised Education Programme (IEP) is a programme designed to address unique educational needs of an individual learner.” Mangal (2012: 560) defines the IEP as a written plan drawn for providing SE services to the

individual child”. The IEP should be one of the key strategies for implementing the revised curriculum that emphasises practical skills. Table 4 compares SETs’ understanding of the IEP concept. Teachers from special and inclusive schools were compared to see whether specialisation had a significant impact on understanding the concept IEP.

Table 5: Comparing IEP practice in school curriculum implementation with qualifications and the type of school where respondents were drawn (N=120)

Characteristic	Category	Yes	%	No	%	Sometimes	%	Not sure	%	Total	Total %
5.1. Qualifications	Certificate in SE	2	50	1	25	1	25	0	0	4	100
(p-value = .002)	Diploma in SE	34	75.6	2	4.4	8	17.8	1	2.2	45	100
(r=508; p = .002.	Degree in SE	12	48	9	36	2	8	2	8	25	100
	Masters in SE	2	20	5	50	2	20	1	10	10	100
	Not Trained in SE	9	25.7	13	37.1	10	28.6	3	8.6	35	100
	TOTAL (<i>Missing value = 1</i>)	59	49.6	30	25.2	23	19.3	7	5.9	119	100
5.2. Type of school	Special School	36	59	11	18	11	18	3	4.9	61	100
(p-value = .001)	Inclusive School	8	20.5	17	43.6	10	25.6	4	10.3	39	100
	Special Unit	15	83.3	1	5.6	2	11.1	0	0	18	100
	Hospital Unit	0	0	1	100	0	0	0	0	1	100
	TOTAL (<i>Missing value = 1</i>)	59	49.6	30	25.2	23	19.3	7	5.9	119	100

*Source: Survey data * significant at 0.05 level*

From the results, disparities were observed on the application of the IEP as a strategy for implementing the curriculum for LSENs. Teachers that had diploma and degrees in Special Education were more likely to prepare an IEP for their learners than those that were not trained in Special Education i.e. p -value (χ^2 (12, $N = 119$) = 30.69, $p < .05$). The strength of this relationship is large at ($\phi = .508$), more than 50% sure that a relationship exists. The results show that a relationship exists between specialised qualifications and the ability to practice it in teaching LSENs. It is, however, not clear why those with Masters' degree qualifications, though few, had majority not being able to prepare an IEP. Other factors such as negative attitudes towards the use of the IEP could have affected curriculum implementation. However, while other factors may be behind such a relationship, which the Chi square cannot provide, what comes out is that qualification is one of the strong factors.

Further comparisons were to see whether differences in preparing IEPs existed between the types of schools from where respondents were drawn. The results showed that teachers from special schools and units were more also likely to prepare IEP than those that were from inclusive schools, i.e. (χ^2 (9, $N = 118$) = 27.99, $p < .001$). There is a stronger relationship at ($\phi = .485$) between the type of school and the practice of IEP. There could also be many factors related to this. One of the factors is that most teachers found in special schools were more qualified and specialised in the field of SE than those that were found in inclusive schools teaching LSENs.

The qualitative results show a more negative picture of IEP implementation. From the observation tool used to observe teachers, one of the aspects the researcher wanted to hear from the teachers during post lesson discussions was the use of the IEP to implement the 2013 curriculum. From the literature reviewed, the IEP is a very instrumental tool in the provision of

SE. However, none of the respondents the researcher interacted with was able to provide an updated IEP. The results show that teachers and schools in general do not use an IEP to restore to normal the educational backwardness of learners resulting from the impairments they have or as a tool for implementing the curriculum so that learners with different disabilities benefit from a newly introduced curriculum. According to MoGE (2016:5) an individualised Education Programme (IEP) is a programme designed to address unique educational needs of an individual learner.” Mangal (2012: 560) defines the IEP as a written plan drawn for providing SE services to the individual child. However, this study reveals misunderstandings about the implementing of the IEP saying it was replaced with the IEA. For instance, one teacher said,

“Actually this time, it is like we have done away with the IEP, instead we have IEA (Individualized education activities).... yes, during our training we were taught how to do with that one. Because that thing takes time, it can take even up to a year for someone to do with that one and then you just look at one child for that period, what of the others”

However, the MoGE (2016) guidelines for implementing inclusive education in Zambia implore teachers to implement the IEP and use the IEA as a teaching strategy. When there are no guidelines and preparation for teachers to implement the revised curriculum, each teacher is likely to do what they think is correct. The IEP is a crucial implementation strategy for any curriculum for LSEs. Failure by teachers to use it questions the type of quality education LSEs are receiving from the revised curriculum.

From the results, it further appears that teachers generally had negative attitudes towards using the IEP. For instance, all 12 teachers observed were asked for samples of the IEP but could not produce any. One of the teachers said:

“Unfortunately this is when I was planning to, because the learners are all new comers. I was just planning to write the IEP..... But I think any day....”

Three other teachers in inclusive classrooms expressed complete ignorance about what an IEP is when asked to provide a copy. This is what they said;

“No, what’s that? help me understand!”

“Individual what, what, what, Individual what, I have forgotten but I have the idea on what to do, but I have just forgotten the the format and what the initials stand for.”“IEP that is individual.....is it evaluation... I have an idea maybe I have just forgotten, is it Individual educational plan?”

Such expressions show that teachers do not know the significance of the IEP as a tool for curriculum implementation for LSENs. The ultimate aim of an IEP in curriculum implementation is to restore to normal the educational backwardness of a learner with special educational needs. When teachers are not adequately prepared to use the IEP for such purpose, and oriented in the revised curriculum which demands curriculum adaptation LSENs lose out from new concepts introduced in a revised curriculum.

Conclusion and Recommendations

From the results of this study, SETs were not involved in the 2013 CDP in Zambia. However, they are the ones bestowed with the responsibility to implement the same curriculum they did not participate in its making. When results from the three provinces were compared, the study confirms similar responses from the three different provinces. They demonstrated limited understanding of the contents that relate to the curriculum for LSENs such as curriculum adaptation and the application of

the IEP in teaching LSENs. This shows that teachers were not prepared enough or were not trained on the revised curriculum. Some teachers did not show understanding of LSENs therefore may not be receiving quality teaching as a result.

This study therefore recommends a cyclic process of deliberative training of all teachers in special education to understand the CDP that took place and develop best strategies for implementing it to LSENs. It would be practical for Zambia's Ministry of General Education to consider adopting a school based approach to curriculum development as proposed by (Scwab 1978, 1983, Pinnar 2004) and a deliberative implementation process that ensures that collaborative groups of different disciplines and experiences which include learners, teachers, subject matter and milieu, and the curriculum specialist are brought together to improve the curriculum (Scwab 1978, 1983). The curriculum specialist has a coordinating facilitating role. Cyclic training process would ensure a fresh beginning of orientating SETs on why the curriculum changed and of what benefit the revised curriculum is to LSENs and training them on how to implement it while emphasising the need for adaptation and application of the IEP. Teacher training and retraining as well as the reinforcement of professional development activities would help redress the problem. It is also high time facilitators of curriculum development realised that curriculum development should be highly inclusive if we are to increase participation and realise the Sustainable Development Goal (SDG 4) on inclusive, equity and long life learning by 2030. The top down model of curriculum development is highly centralised and ignores expert knowledge and skills input into curriculum. It has deleterious effects on teacher autonomy and creativeness to manipulate situations that favour LSENs. In this regard, the need to decentralise curriculum development becomes crucial not only to increase participation but to ensure empowerment of teachers

with skills and knowledge and ownership of the curriculum they are trained to deliver. Above all, just as Kridel (2010) suggests, schools and teachers need to be supported with not only resources but also time and insight to continuously evaluate their work and improve the learning experiences of LSENs.

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