

## **Teachers' Knowledge of Curriculum Adaptation and Adaptation Strategies for Learners with Special Educational Needs in Zambia.**

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### **Abstract**

*This paper presents results of a study conducted to establish teachers' knowledge of the concept of curriculum adaptation for learners with special educational needs and the strategies they used to adapt the curriculum. A total of 120 teachers from Southern Lusaka and North Western Provinces in Zambia were involved in the study. Forty (40) teachers were randomly selected from each of the three provinces. The study was anchored on two research questions:*

*(1) Do special education teachers understand the concept of curriculum adaptation? (2) What strategies were teachers using to adapt the curriculum to learners with special educational needs?*

*Data were analysed using the statistical package for social sciences version 16 to derive frequencies and percentages. Chi-square was used to determine differences between*

*teachers' geographical location and qualifications' relationship with their understanding of the concept of curriculum adaptation. Results showed that majority of the teachers who were teaching learners with special educational needs did not understand the concept of curriculum adaptation. However, teachers reported that they used several strategies such as giving extra time, giving different assessment tasks, reducing the amount of material and individualised teaching to adapt the curriculum although they were sceptical using content omission and substitution as strategies for curriculum adaptation. The study recommends teacher orientation and capacity building on the concept of curriculum adaptation to provide them with more strategies for implementing the curriculum to learners with special educational needs.*

**Keywords:** *Adaptation, Curriculum, Special Teachers, Special Educational Needs*

### **Background**

Curriculum reforms around the world are a necessary undertaking intended to respond to changing needs of society. Zambia revised her curriculum in 2013 and offloaded it for

implementation in January 2014. The curriculum was revised because the Curriculum Development Centre (CDC), the body mandated to develop curriculum in Zambia, observed that the old curriculum was too overloaded with theoretical content, and it was examination-oriented. Further, the old curriculum was not career-oriented, overlooked skills and values, used a foreign language as the medium of instruction, and had a fragmentation of subjects with similar content. (Ministry of Education Science, Vocational Training and Early Education – [MESVTEE], 2013; Tuchili & Kalirani, 2014). Furthermore, the old curriculum had content that was not relevant to individual and societal needs, did not embrace technologies such as ICTs for education purposes and cross-cutting issues that were affecting the community (MESVTEE, 2013; Tuchili & Kalirani 2014). The revised curriculum encourages teachers to adapt the curriculum to the level of learners with special educational needs. According to MESVTEE (2013:21)

children with Special Educational Needs require adapted curriculum and adapted technology relevant to their disabilities. However, learners with intellectual impairment as well as others with severe disabilities who cannot benefit from the inclusive curriculum will have an alternative curriculum that suits their needs and abilities. Such learners will be sent to special education units and schools.

### **The Concept of Curriculum Adaptation**

For learners with special educational needs (LSENs), curriculum adaptation provides access to the general school curriculum. Since this paper centres on curriculum adaptation, it avoids a debate on the differences between the terms ‘curriculum adaptation’ and ‘accommodation’. This is because different scholars draw distinctions between the two terms yet others use them interchangeably. However, a little elaboration is provided to shade light on the significance of the concepts to the provision of education to LSENs. The Convention on the Rights of Persons with Disabilities-UNCRPD (2016) outlines a number of accommodations to be made by service providers in order to provide access to the curriculum for LSENs. These are changing class location, using different forms of communication, enlarging print, providing handouts, using note takers and interpreters when teaching, allowing students more time, reducing noise, use of alternative assessment methods and replacing some elements of the curriculum by an

alternative element (United Nations, 2016). A closer analysis of the UNCRPD explanation of the concept of accommodation shows that the concept of accommodation is broader than adaptation because adaptation is understood to be a means of accommodating LSENs in learning. The idea is that adaptation is done to provide accommodation for learners who cannot benefit from the curriculum as it is ordinarily presented. In this paper, the focus is on curriculum adaptation.

Curriculum adaptation can be explained as an amendment and improvement process of what is taught and the methods of teaching so that all learners are accommodated in the learning environment (Adewumi, Rembe, Shumba & Akinyemi, 2017). The National Council of Educational Research and Training (2014) defines adaptations as the adjustments to assessment, material, curriculum or the classroom environment in order to accommodate students' needs and to allow participation in the teaching learning process. This understanding provides a broader view of curriculum adaptation especially that it also covers assessment. Thus, the concept supports the inclusion of learners with disabilities in mainstream classrooms. Curriculum adaptation enables teachers to welcome learners of all abilities and ensures that every student is challenged to learn. Pierangelo and Giuliani (2008) say adaptation, especially for LSENs, takes into consideration several factors which include a combined set of teaching strategies, flexible scheduling, individualised instruction, mastery learning, large- and small-group instruction, individualised tutorials, and cooperative learning. Mitchell (2008) identified four alternatives to curriculum accessibility by LSENs. These are accommodation, substitution, omission and compensation. Under accommodations, learners are provided with learning opportunities that involve computer responses instead of oral. Substitution refers to replacing certain tasks in order to respond to the level of the learners being taught. For instance, instead writing, braille can be provided for learners with visual impairments. Omission as means for accessing the curriculum entails teachers gauging the level of reasoning of the learners or the incapability to do certain tasks due to disabilities such as vision and leave out certain complex work for such learners. Under compensation, learners' strong abilities are much more promoted in other areas of their strength such as self-care and vocational skills. The compensation alternative can be likened to Zambia's 2013 revised curriculum. Zambia's new curriculum is a

two-tier path way curriculum in which vocational pathway is one such a strategy for providing accessibility to the curriculum for all learners including LSEs.

Curriculum adaptation is quite significant, especially to LSEs. According to Pierangelo and Giuliani (2008), curriculum adaptation is vital if learners with disabilities are to achieve or surpass the learning outcomes set in the curriculum. Mitchell (2008) observed that, making appropriate adaptations or modifications to the curriculum is central to inclusive education and is probably the biggest challenge educators face in creating inclusive classrooms. Adaptations include environmental adaptations, presentation of material, pace of activities, alternative methods, material adaptation, assistance to students, and adapting the assessment process. Adaptations, according to King-Sears (2001), are a form of modification to the delivery of instructional methods and intended goals of the students' performance that does not change the content but does slightly change the conceptual difficulty of the curriculum. Curriculum implementation, especially for LSEs, calls for specialised knowledge and skills among Special Education Teachers (SETs) for them to be able to adapt the curriculum to meet the learning needs of such learners. Curriculum adaptation is one significant consideration for not only implementing the curriculum to LSEs but for providing access to the curriculum. Without curriculum adaptation, LSEs would find it difficult to access the curriculum, thus creating some level of inequality in the provision of education.

### **Global Practices and Experiences in Curriculum Adaptation for Learners with Special Educational Needs**

Worldwide, modifications to the curriculum are supported to accord learners with disabilities access to quality inclusive education. Worldwide, studies on the provision of education to learners with different disabilities show that curriculum adaptations provide access for students with disabilities to the general school curriculum. Further, for learners to benefit from the general curriculum and from inclusive education, the curriculum needs to be tailored to their individual capacities. In Hong-Kong, China, a study by Zhang, Wong, Chan, and Chiu (2014) on curriculum adaptation for students with intellectual disabilities in special schools established that curriculum adaptation efforts helped students with intellectual disabilities to

develop potential at their own level through project learning activities and teachers could also gain professional development during the university-school collaboration process. However, the study acknowledged a limitation in the samples which were based on a qualitative design and the researchers proposed further studies by quantitative designs.

In Norway, education is adapted to the abilities and aptitudes of individual pupils, a principle applied in an inclusive context and to all pupils (Buli-Holmberg, Nilsen, & Skjen, 2014). Thus, according to Buli-Holmberg et al. (2014:47) “Special Education entails a more extensive adaptation than that normally provided for in ordinary education with regard to the input of resources and expertise, as well as differentiation of content.” A study by Imsen (2003) on teachers’ practice of inclusive and individually adapted education in Norway revealed major differences between pupils and teachers’ perceptions of the degree to which teaching should be adapted to individual pupils’ needs. Other studies by Arnesen (2008), and Dale and Waerness (2003) also show a lack of coherence between what teachers said they do and what is actually done in practice. In adaptation, the possibility of providing less work to learners exists because the learning abilities of some learners with disabilities may not be comparable to the learning abilities of other learners without disabilities.

In Cameroon, Shey (2017) reports that teachers faced a lot of difficulties in teaching children with dyslexia in regular classrooms with 87.7 % (57) of the teachers admitting that they taught strictly on prescribed scheme of work. Teachers acknowledged that some learners were slow at completing class tasks 78.5% (51) but found it difficult to reduce material content for some of those slow learners 58.5% (38) although 41.5% (27) would reduce the material content.

However, Shey (2017) still found that some teachers were able to prepare extra material to help slow learners (60%) while (40%) were not. On giving different material out of the prescribed work to learners that were slow at learning, teachers were divided at 49.2% disagreeing and 50.8% agreeing. Thus, curriculum adaptation is also dependent on teachers’ attitudes and sense of responsibility. It also depends on whether there are available guidelines that make it clear what material can be taught to some learners and what cannot.

In South Africa, Mzizi (2014) found that many teachers understood the concept of curriculum adaptation although they implemented only selected aspects of the curriculum. The difference between Mzizi's (2014) and this study lies in the designs used to study the phenomenon. Thus, Mzizi used a qualitative phenomenology which could not provide generalisations. Further, in South Africa, Adewumiet al. (2017) report that despite challenges of overcrowded classes and limited resources for curriculum adaptation, teachers in selected primary schools in Fort Beaufort District used various methods to adapt the curriculum in order to ensure the inclusion of all learners. The methods used included the use of different strategies such as dedication time, individual work, group work, extra work and coming down to the learners' level. What was more positive about the results of their study was that teachers adopted the good practice of curriculum adaptation and they understood the concept of curriculum adaptation and what needed to be done (Adewumi et al., 2017). However, there were still some teachers that were not adapting the curriculum because of large classes and lack of training (Adewumi et al., 2017).

Although Deluca, Tramontano, Kett (2014) specifically studied the inclusion of children with disabilities in primary schools of Zimbabwe, the challenges facing the implementation of inclusive education equally affect curriculum adaptation. For instance, according to Deluca et al. (2014), while attitudes and beliefs of respondents were positive, barriers such as lack of assistive devices and lack of training in special education and inclusive education affected inclusive education and subsequently curriculum adaptation.

Zambia has embraced the philosophy of inclusive education, although some categories of learners with severe disabilities are allowed to learn in special schools and units or through an alternative curriculum (Ministry of Education [MoE], 1996; MESVTEE, 2013). The new curriculum framework (MESVTEE, 2013) proposes an adapted curriculum for learners who cannot benefit from the general curriculum. In Zambia, the MoGE (2016:21) says, "in order for LSENs to benefit from the education system, there is need for curricula to be tailored according to the needs of various disability groups". Among the recognised strategies documented for curriculum adaptation for LSENs are ICTs, Braille, Sign language, and the prioritizing of self-help skills and vocational skills for LSENs who may not benefit from the



academic curricula due to their disabling condition (Ministry of General Education-[MoGE], 2016). While such strategies for curriculum adaptation are pronounced in MoGE(2016), it was not known whether SETs in Zambia understood and used such strategies to adapt the curriculum. Although there are no specific studies on curriculum adaptation for teachers of LSENs in Zambia, some related studies show gaps in competencies among special education teachers. For instance; Muzata (2018), noted that special education trainee teachers on teaching practice lacked skills for teaching in inclusive classrooms. Mulonda (2013), MoE (2014) and Muzata (2017; 2018) report teacher incompetencies in sign language when teaching learners with deafness. Simalalo (2017), in a study to assess the implementation of the expanded core curriculum for learners with visual impairments in special schools in Zambia found that the Early Childhood Curriculum was taught in segmented patterns without curriculum guides and learners did not learn all the skills. Simalalo (2017), says methodologies used in teacher training and at school level were inadequate. These gaps motivated this study. While it is acknowledged that the MoGE in Zambia encourages teachers for LSENs to adapt the curriculum (MoE, 2000;MoGE, 2016), it was not known whether teachers had knowledge of curriculum adaptation and the strategies used to adapt the curriculum, especially that available literature shows that there is lack of necessary materials, support, and guidelines (Muzata, 2017; Simalalo, 2017) on how to adapt the curriculum. The study, therefore, sought to answer the following research questions:

- Do SETs have understanding of the concept of curriculum adaptation for LSENs?
- What strategies do SETs use to implement the 2013 curriculum to LSENs?

### **Methodology**

The study adopted the Descriptive Survey Design in an endeavour to establish SETs understanding of the concept of curriculum adaptation and the strategies used to implement the curriculum to LSENs in Zambia. Data were collected by use of structured questionnaires. Respondents were expected to define the concept of curriculum adaptation for LSENs and state whether they used some or all of the strategies for curriculum adapted listed by researchers. Four categories of responses were provided for respondents to choose from, whether they used a particular adaptation strategy or not. These four categories were; 'Yes', 'No', 'Sometimes'; and 'Not Sure'. One Hundred and Twenty (120) respondents, were randomly sampled, forty

(40) from each of the three provinces namely; Southern, Lusaka and North Western Provinces. This sampling was suitable for generalisation of results. The sample was drawn from a population of teachers teaching LSEs in special and inclusive schools in Zambia.

The Statistical Package for Social Sciences (SPSS-Version 16) was used to analyse the data. Data analysis involved deriving frequencies, percentages and rigorous cross tabulations to compare the sets of data from geographical to qualification perspectives. The Chi-square test of independence was used to determine whether there were significant differences in the data collected. The main variables involved in data analysis were teacher qualifications and the provinces where they were drawn from. The province and qualification variables were used to identify areas of need for intervention. Significant differences and the strength of the differences were determined at alpha 0.5 level. The researchers took into consideration ethical issues by not allowing respondents writing their names on the questionnaires. Clear explanations were provided to respondents before data were collected. Respondents also signed consent forms before answering questionnaires.

### Results and Discussion

#### **Research question 1: Do SETs have understanding of the concept of curriculum adaptation for LSEs?**

Respondents were asked to define the concept of curriculum adaptation for LSEs. Responses were coded as 'correct', 'partly correct' or 'not correct.' The table 1 shows compared results of the responses.

Table 1: *Understanding the concept of curriculum adaptation*

Characteristic Category	Response								Total	
	Correct		Partly		Correct		Incorrect			
	Fq	%	Fq	%	Fq	%	Fq	%		
1.1. Province Lusaka	18	45	5	12.5	10	25	7	17.5	40	100



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1.2. Qualification ( $r = .267$ ; $p = .000$ ).	Southern	2	5	6	15	26	65	6	15	40	100	
	North	23	57.	4	10	6	15	7	17.5	40	100	
	Western		5									
	<b>TOTAL</b>	<b>43</b>	<b>36</b>	<b>15</b>	<b>12.5</b>	<b>42</b>	<b>35</b>	<b>20</b>	<b>17</b>	<b>120</b>	<b>100</b>	
	Certificate in SE	1	25	0	0	3	75	0	0	4	100	
	Diploma in SE	23	51.	5	11.1	7	15.	6	10	22.2	45	100
	Degree in SE	14	53.	2	7.7	7	26.	9	3	11.5	26	100
	Masters in SE	3	30	3	30	1	10	3	30	10	100	
	Other	2	5.7	5	14.3	24	68.	6	4	11.4	35	100
	<b>TOTAL</b>	<b>43</b>	<b>36</b>	<b>15</b>	<b>13</b>	<b>42</b>	<b>35</b>	<b>20</b>	<b>17</b>	<b>120</b>	<b>100</b>	

Source: Survey data

\* significant at 0.05 level; (Fq = Frequency)

The results in Table 1 showed significant differences between province, qualification and the understanding of the concept of curriculum adaptation. For instance, when respondents were asked to define the concept of curriculum adaptation, the Chi-square results showed a significant association between provinces and the SETs' understanding of curriculum adaptation. The Chi-square test yielded ( $\chi^2 (6, N = 120) = 33.29, p < .05$ ) (see characteristic 1.1 in table 1 for the  $p$ -value). This relationship is so strong that it could not have occurred by chance. The ( $\phi$ ) run to confirm the strength of the relationship gave ( $\phi = .473$ ), meaning the relationship when translated using Cohen (1988) scale means the relationship is strong. This confirms the calculations by frequency and percentage results which showed that more SETs in Southern Province did not understand the concept of curriculum adaptation compared to Lusaka and North Western Province SETs. For instance, 26 (65%) of SETs from Southern province defined the concept of curriculum adaptation incorrectly compared to 10 (25%) Lusaka and 6 (15%) North Western Province (see table 1, characteristic 1.1.) The results further showed that North Western Province was superior in understanding the concept while,

Lusaka was second. Thus, 23 (57.5%) of SETs from North Western province defined the concept of curriculum adaptation correctly than 18 (45%) SETs from Lusaka and 2 (5%) from Southern province. Similar to this study, Ntumi (2016), in a study of the challenges of pre-school teachers in implementing preschool curriculum in the Cape Coast Metropolis, found that among the many challenges teachers faced was failure to understand the ECC curriculum. The concept of curriculum adaptation which is required to be applied during implementation is not well understood by SETs in general.

On qualifications and specialisation, the results showed consistent significant differences. Table 1 (*characteristic 1.2*) shows how significant the results of qualifications and the understanding of curriculum adaptation were at ( $\chi^2 (12, N = 120) = 41.75, p < .05$ ). Thus, respondents who had qualifications in special education answered the questions on curriculum adaptation correctly than respondents without qualifications in the field of special education. For instance, literal frequency results show that more of the respondents (24; 68.6%) who did not have qualifications in special education did not define the concept of curriculum adaptation correctly. The results further show that SETs with certificate in special education did not understand well the concept of curriculum adaptation (3; 75%). However, the respondents with certificates in special education that participated in the study were too few to influence conclusion. What is clearer from the results is that SETs specialised in special education from diploma to degree level were more conversant with the concept of curriculum adaptation. Although Adewumiet et al. (2017) reported that teachers understood what curriculum adaptation is and what should be done, majority of the SETs in this study showed that they did not understand the concept of adaptation. However, SETs that were specialised in special education demonstrated reasonable knowledge of adaptation. Further, contrary to what Mzizi(2014) found on curriculum adaptations for learners with learning impairments in the Phase in Thabo Mofutsanyana Education District, Free State Province, this study found that many teachers did not understand the concept of curriculum adaptation.

Table 2 shows samples of the responses that were coded as correct, partly correct and incorrect.

**Table 2:** *Samples of correct and incorrect responses about curriculum adaptation*

Appropriate or near appropriate responses	Inappropriate and unclear responses
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One to one explaining to the learner, individual attention	Modifications through workshops
Leaving out some vowels in literacy for learners with hearing impairment	To protect them danger that is in the community
Giving different assessment	Encourage the learners, take in the knowledge life
Breaking down difficult topics and content and designing signs to suit the development and learners	We include them in school programmes
Giving remedial work	By practicing inclusive learning
Each child is given work according to his or her level	By enrolling them in mainstream and by assessing
Giving extra material and needs, tools and using teaching aids	Including in the main syllabus
Assisting in providing necessary requirements, e.g. visual and placing them either in front or at the back, shouting a bit louder	Create a conducive environment
	Accommodating and accepting their state

**Research question 2: *What strategies do SETs use to implement the 2013 curriculum to LSENs?***

Table 3 shows results to a question on the strategies SETs used to adapt the curriculum to meet the learning needs for LSENs. The researchers outlined some strategies used for curriculum implementation on a questionnaire checklist and asked respondents to tick which strategies they used and those they did not. Respondents were asked to tick ‘Yes’, ‘No’, ‘Sometimes’ or ‘Not Sure’ whether they used any of the outlined strategies or not.

**Table 3: *Adaptation Strategies used by Teachers***

Adaptation Strategy	Yes	No	Sometimes	Not Sure	Total
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	Fq	%	Fq	%	Fq	%	Fq	%	Fq	%
Use of extra time during exams (p-value = .000)	92	76.7	12	10	7	5.8	9	7.5	120	100
Extra time during tests (p-value = .114)	86	71.7	11	9.2	20	16.7	3	2.5	120	100
Giving different assessment tasks (p-value = .086) (missing value = 1)	82	68.9	21	17.6	14	11.8	2	1.7	119	100
Reducing number of tasks (p-value = .141)	75	62.5	21	17.5	19	15.8	5	4.2	120	100
Replacing tasks (p-value = .606) (missing value = 2)	54	45.8	30	25.4	28	23.7	6	5.1	118	100
Omitting tasks (p-value = .104) (missing value = 2)	36	30.5	48	40.7	21	17.8	13	11	118	100
Individualised teaching (p-value = .012) (missing value = 2)	69	58.5	17	14.4	31	26.3	1	0.8	118	100

Source: Survey data

Fq= Frequency

\* significant at .05 alpha level

From the results, teachers indicated that they were using different strategies to implement the revised curriculum. The strategies included giving extra time during exams and test, giving different assessment tasks, reducing tasks, replacing tasks, omitting tasks and individualised teaching. However, there were still teachers who did not use the outlined strategies when teaching LSEs. In any case, this is perhaps where the limitation of this study lies. The fact that they ticked from outlined strategies. When the results were subjected to a Chi-square test of independence, no significant differences were observed in relation to the qualifications or specialisations teachers possessed as was observed in table 1. For instance, on extra time for tests, chi-square results were at  $(\chi^2 (12, n = 120) = 17.15, p > .05)$ , indicating that there were no

significant differences in the responses. This was also observed on the other strategy involving giving different assessments with a chi-square output of  $(\chi^2 (12, n = 119) = 19.11, p > .05)$ . There were also no significant differences according to qualifications about reducing the number of tasks whose Chi square calculation was at  $(\chi^2 (12, n = 120) = 17.22, p > .05)$ , replacing tasks at  $(\chi^2 (12, n = 118) = 10.12, p > .05)$ , and omitting tasks at  $(\chi^2 (12, n = 118) = 18.37, p > .05)$ .

From the results, we deduce that SETs were able to apply some strategies of adapting the curriculum and not others. For instance, majority SETs were able to apply the strategy of giving extra time on exams 92, (76.7%), and during tests 86, (71.8%). Respondents were also able to apply the strategy of giving different assessment tasks 82, (68.9%), reducing the number of tasks 75, (62.5%) while replacing tasks and individualised teaching were minimally used at 54, (45.8%) and 69, (58.5%) respectively. The results agree with Mzizi (2017) who also found teachers used the giving of extra time as prominent strategy. However, the results show that the majority of the respondents did not omission of tasks as a strategy 48, (40.7%). The results are similar to Shey's (2017) in Cameroon, who found that teachers were able to apply some strategies except for reducing tasks when adapting the curriculum for learners with dyslexia. On giving different material from the prescribed, Shey (2017) found that teachers were divided at 49.2% disagreeing and 50.8% agreeing to using the strategy. From the results and reviewed studies, teachers appear to avoid applying strategies that involve reduction, omission or modifying the material. In the Zambian context, if the tasks are replaced or omitted, reduced or learners are given different tasks, the teaching for examination syndrome predisposes LSENs to failing because the examination, which is centrally set, does not substitute, omit or replace examination tasks according to the abilities of LSENs. LSENs in Zambia write the same examinations with all other learners without disabilities though modifications are allowed in terms of time. In this regard, the MoGE (2016:25) has a progressive policy which says, "Examinations shall be based on modified or alternative curriculum for LSEN and that the Examination Council of Zambia-ECZ and school-based examinations for learners with hearing impairment shall be set in sign language". Although questions would arise as to how exams can be written in sign language, the idea of school-based exams demonstrate a will towards decentralised system.

The ECZ has made considerable efforts to include guidelines on how to manage examinations for LSEs. ECZ (2015:20) says “the head teacher/principal shall propose names of support personnel to be appointed by the District Education Board Secretaries as transcribers, tape recording assistants, readers, amanuensis and sign language interpreters”. Further, ECZ unpublished leaflets show that the body allows 25% extra time to candidates with Special Educational Needs. These are positive efforts that need inclusion in the education laws, policies and in instructional guidelines. However, even though the ECZ has made such commendable efforts, the guidelines do not say whether examinations may be modified in any way for LSEs who cannot manage certain topics due to their disability. As such, since ECZ holds the mandate to run examinations, teachers have no autonomy to omit, substitute or reduce content based on a learner’s disability. CDC has a duty to ensure instructional guidelines that include substitution, omission and reduction of content, manner of assessment and other necessary disability-friendly guidelines are developed in consultation with the examination body. If such initiatives were used by teachers during the implementation of the curriculum in actual teaching and learning and during continuous assessment, fair and reasonable assessment would be ensured. Teachers need to know what can be omitted, substituted or reduced from the content for LSEs and examinations should include such measures to accord LSEs a fair and inclusive assessment. It must, however, be noted that such measures are highly practicable when teachers are given the opportunity to manage their examinations for LSEs.

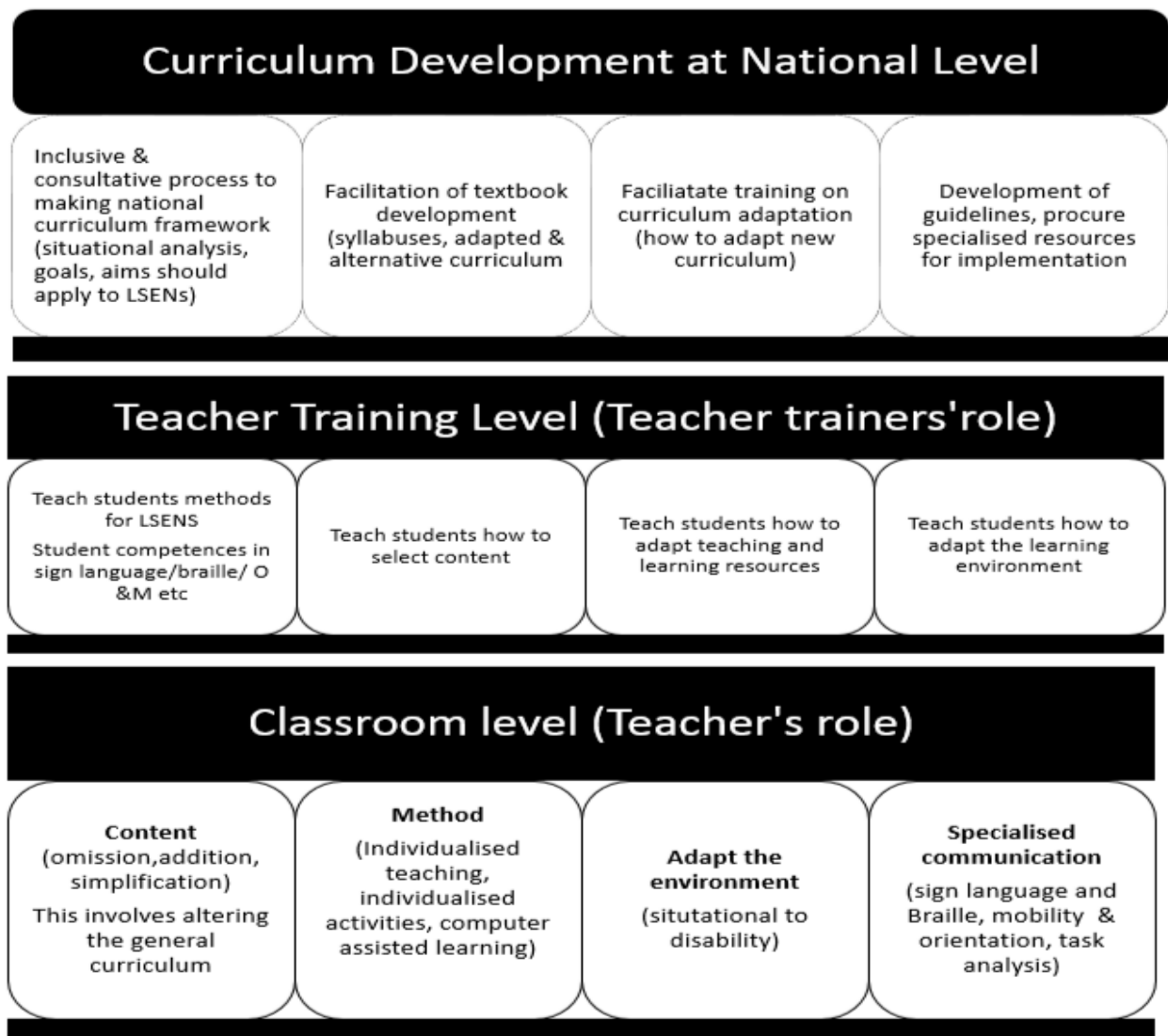
On the use of individualised teaching, there were significant differences recorded from the results at ( $\chi^2(12, n = 118) = 25.53, p < .05$ ). Respondents with qualifications in special education said they prepared individualised teaching for LSEs than those who did not have qualifications in special education. The strength of this relationship was at ( $\phi = .465$ ), close to a large association. This shows there is a positive relationship between being trained in special education and the practice of preparing the IEP. The results agree with Bwalya (2014) who related the reasons for teachers’ failure to prepare IEPs to their not being trained in pre-vocational skills. Muzata (2017) found that there was a positive relationship between specialisation and the practice of IEP among teachers. Teachers that were trained in special education implemented the IEP as opposed to those who were not even though both type of



teachers were teaching learners with disabilities in special and inclusive schools. Chishimba (2015) equally found that teachers in Mpongwe District of Zambia did not prepare IEPs due to large classes, limited time, poor staffing and lack of materials. From the results and related literature, it is important to train teachers on how to prepare the IEP to meet individual needs.

### **Conclusion**

The study concludes that, generally SETs did not demonstrate thorough understanding of the concept of curriculum adaptation. Most of them, especially the ones that were not trained in special education could not define or explain the concept of curriculum adaptation correctly. Most SETs that demonstrated lack of understanding were from Southern province, followed by Lusaka and North Western provinces in that order. However, the study results reveal that teachers used strategies such as giving extra time during exams and tests, giving different assessment tasks, reducing tasks and individualised teaching, while omitting tasks and replacing tasks were minimally applied. With further studies based on a qualitative approach, reasons for the minimal use of some of the strategies should be established. Curriculum adaptation is not a practice that should be negotiated for. It is the mandate of the MoGE to ensure that teachers are well trained to practice curriculum adaptation in order to ensure quality and inclusive education provision to LSENs. The MoGE has the mandate to ensure that curriculum adaptation is done at three different levels of the education system namely at curriculum development level, teacher training level and classroom level. Figure 1 is a framework of how curriculum adaptation can be applied at the three levels:



*Figure 1:* Adapted from (Muzata, 2017)

This framework demonstrates that teachers need to be empowered with not only knowledge and skills but autonomy to adapt the curriculum to individual needs of the learners. Teachers also need books and curriculum guides to support curriculum adaptation. Only then, shall education be considered inclusive when it provides every learner the opportunity to access the school curriculum.

### Recommendations

In view of the results, the study provides the following recommendations:

- The MoGE in Zambia through Curriculum Development Centre (CDC) should provide training and capacity building for SETs in order to help them acquire

skills on how to adapt the curriculum to meet the learning needs of LSENs in Zambian schools.

- The Curriculum Development Centre should provide clear guidelines of curriculum adaptation for LSENs so that teachers have the autonomy to modify, simplify, and omit tasks that may not be suitable for some categories of learners.
- Schools should emphasise continuous professional development to strengthen capacity for teachers to adapt the curriculum.
- The MoGE in Zambia should put in place measures to ensure that teachers utilise the IEP to meet the individual needs of learners who do not benefit from the curriculum at the same pace with others as a result of disability. Such measures may include introduction of incentives related to their professional development.

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