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## **Curriculum for Children with Hearing Impairment: A Bridge in Accessing Secondary Education**

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### **Abstract:**

*A fundamental aim of this study was to investigate the content of the curriculum used by children with hearing impairment in Zimbabwe at special institutions since most of these children fail to proceed to secondary education after grade seven despite the equal opportunity philosophy of inclusion. The descriptive research design of the quantitative methodology was used. The sample was 40 teachers from a special school including the head of that special school and the head of a neighbouring secondary school. Random sampling was employed and the instruments used were questionnaires, interviews and checklist of equipment used to access the curriculum.*

*The intention of the study was to provide accurate information about the possibility of the curriculum in special schools to bridge children with hearing impairment to secondary education in Zimbabwe. The study found out that teachers have difficulties in interpreting the curriculum using sign language. Also results revealed that teachers failed to complete the curriculum since they dwelt a lot on practical subjects at the detriment of academic subjects. The results have shown that teachers used different teaching approaches that confused children from one grade to another. Also sign language development was not given enough time since most teachers were not qualified and skilled in sign language. The study recommended in-service training of teachers in order to solve issues of irrelevant approaches, poor interpretation of the curriculum and lack of knowhow about the teaching academic subjects. In addition, the study recommends inclusion of sign language in the curriculum to facilitate access to other curriculum contents.*

**Keywords:** *Hearing impairment, regular school curriculum, secondary education*

### **1. Introduction**

The plight in education of children with hearing impairment becomes a cause for concern internationally and warrants most researchers to investigate the cause. The introduction of inclusive curriculum intends to give all children, including those with hearing impairment, equal opportunity to access secondary education (UN Standard rules, 1993). The school curriculum is viewed as the school's total effort to achieve its goals, objectives of meeting individual needs (Brennan, 1986). Its key function is to provide a set of activities or experiences to be covered at a given period by every child in preparation for higher education or independent living. According to the philosophy of inclusion, all children are rightfully accorded the same opportunity for education regardless of any disability they may have (Salamanca Statement, 1994). The minimum expected educational outcome for all students, including children with hearing impairment is functional literacy and numeracy by the end of primary school education (Education Secretary's Policy Circular No 12, 1987) Furthermore, the policy expects every child to master knowledge and skills in the national curriculum at all levels of schooling, regardless of race, ethnicity, colour, gender or disability. No child is denied the opportunity to continue with education in Zimbabwe after grade seven. Most parents have opted for regular education so that their children could proceed to secondary education like their hearing counterparts (Ferguson, 2009). Therefore, this study seeks to examine the way the regular school curriculum bridges children with hearing impairment in accessing secondary school education.

### **2. Review of Related Literature**

The curriculum for students with hearing impairment globally, was influenced by the international trends. The United Nations Universal Declaration on Education for All (1948, 2012) and the Jomtien Conference (1990) declared that all children with special needs should be exposed to or should have access to national curriculum of each state. Also UNESCO (2000) and World Federation of the Deaf (WFD, 1993) spell out that Deaf education should be recognized as a primary means of gaining independence, citizenship rights, appropriate economic power and self-employment. The other concern is that all educational needs should be provided through the national curriculum and it should include set of methods, and activities or experiences to be covered at a given period (Brennan, 1986). UNESCO (2000) emphasizes also on the curriculum that provides learning throughout life because they are opposed to a

curriculum that has content which reflects age and gender. It is believed that the right to education and the right to learn throughout life is a necessity since every child is afforded the right to read and write. In addition, every child has the right to have access to appropriate resources for developing and practicing individual competency. The Nziramasanga Commission of inquiry (1999) spells out that hearing impaired students have the right to access quality education within the regular schools with full support. They believe in a curriculum that enables one to become an independent educated and contributing citizen of one's community.

Studies conducted by Musengi, Ndofirepi and Shumba, (2013), Kiyaga and Moores (2009) and the World Federation of the Deaf (1993) revealed that illiteracy and semi-literate were serious problems among students with hearing impairment. The World Federation of the Deaf found out that even in industrialized countries the majority of education systems for children with hearing impairment do not respect the linguistic human right in interpreting the curriculum. The WFD (1993) insists that once the linguistic human right for the deaf is respected the deplorable situation of students with hearing impairment will be history. The curriculum will bridge children with hearing impairment in accessing secondary education.

Basing on the principles of inclusion, the researcher's concern was raised by the number of deaf students who were street beggars who could neither proceed with education nor lead an independent life after primary education. Despite the fact that the government afforded them the right to equal and quality education most of them left school after primary education with poor literacy skills and failed to be self-determined for further education. The study focused on factors that militated against the regular school curriculum in bridging learners with hearing impairment in special schools to secondary education.

### *2.1. Curriculum for Primary School Education*

A curriculum is the means and materials that are intended to be covered by the child within a specific period. The primary school curriculum includes units, the learning standards and objectives to be achieved before the child proceeded to secondary education. It encompasses state requirements necessary for post-primary education and independent living such as knowledge and skills. The entry requirement for secondary education is literacy and numeracy.

Most teachers have to study, discuss and analyze the curriculum before planning and teaching. They develop lessons that facilitate learning of individual children. Achievement of content in the curriculum is reflected in the assessment (summative assessment at grade seven). Teachers are compelled to cover the content and skills that will be evaluated at the end of stipulated period at certain grade level as a requirement of the state. Therefore, teachers are under pressure to improve the performance of students by giving the techniques in test taking. The curriculum materials provide interaction of students in order to achieve the intended educational outcomes (Bunch, 1987).

Also curriculum resources such as textbooks and technology promote yields of the curriculum. The primary school curriculum determines what the larger society wants children to learn. The purpose of the curriculum is to prepare the student to survive within the society. The primary school curriculum is developed by the state including subjects to be taught at primary school level. The curriculum facilitates the transaction from primary to post-primary education (Brennan, 1986).

### *2.2. Challenges in the Curriculum Content*

The literature about Deaf curriculum in Zimbabwe after independence indicates that students with hearing impairment have to learn the same core curriculum used in the education system in Zimbabwe. The curriculum has additional special subjects such as Zimbabwe Sign Language and Speech therapy that enable them to access the core curriculum. Studies reveal that some teachers utilize these special areas as an end in themselves yet they are a means to reach national core curriculum (Marschark, 2009; Musengi, Ndofirepi and Shumba, 2013)

The methods and approaches in teaching are a critical issue in the curriculum of students with hearing impairment. Likewise, Chireshe (2011); Komesaroff and McLean (2006) reveal that students with hearing impairment experience challenges in mastering the national primary school curriculum because of the oral approach since the Milan congress (1880). It was noted that the adjustments of the teaching and learning approaches in the exposure of the curriculum to children with HI is needed (Muka, 2009; UNESCO, 2006). The shift to the regular school curriculum was to facilitate opportunities for learners with HI to proceed to secondary education. The WFD (1993), Kiyaga and Moores (2009) support prior teaching of special additional curriculum that includes sign language for the benefit of effective mastering of the core curriculum concepts. Students with hearing impairment are primarily visual beings, whose eyes are their portal to the world of information and knowledge. The teaching of additional curriculum influences either positively or negatively the complete exposure to the core curriculum that bridges the students to secondary education. Most teachers take time on the additional curriculum and fail to cover the core curriculum while the purpose of the additional special subjects is to facilitate effective access to the core curriculum.

It is during the interpretation of the curriculum that the implementer involves Individual Educational Plan and monitors arrangement of teaching procedures. In addition, there is need for adapted equipment and materials, to help learners of various hearing levels to achieve a higher level of school success (Reagan, 2007). On the same note, teachers in their planning have to design approaches suitable for achieving expected level of education for children with hearing impairment.

Besides that, challenge of content, literature has shown that the nature of the public examination is quite sensitive to the age of the students (Chimedza, 2001). From several studies carried out the educational standards, public examinations and the imposed curriculum force teachers to reach the assumed goals for all pupils without taking cognizance of individualism of learners with hearing impairment who need to acquire language for communication first before covering content in the curriculum. According to Chakuchichi and Badza (2004) the curriculum should be child-centered so that the educational actions are directed by the child's

needs and not the subject matter. It is the philosophy in special education that the instruction should be corrected to suit needs of the individual learner. The national curriculum does not commensurate with the age of Deaf students as alluded before because of the effects of deafness and language rehabilitation programmes delay introduction of academic subjects (Chimedza, 2001). It was indicated by Hallahan and Kauffman (2006) Chimedza and Petersen (2003) that Deaf students might benefit from regular curriculum but access to that full regular curriculum is often not met due to inappropriate communication with students hence, detrimental to the student's preparation of secondary education.

### *2.3. Curriculum for Children with Hearing Impairment in Zimbabwe*

Children with hearing impairment follow the same curriculum as their non-hearing peers prescribed by the state. Their curriculum has special area such as sign language their mother language because they are exempted from oral language. In pre and post independent Zimbabwe up to the 1987 the traditional practice was that students with hearing impairment did not sit for public examinations at Grade seven. Special institution that afforded them education issued reports reflecting practical skills they attained on completion of primary education. Curriculum development for children with hearing impairment was the responsibility of missionaries who provided education at their schools. It was after independence that the Zimbabwean government was actively involved in the education of children with disabilities including education for children with hearing impairment. The Education Act (1987 revised 2006) mandated compulsory primary education to all school going age children regardless of race, colour, sex or disability. Furthermore, considering the tenets of the Education Act (1987 revised 2006) Zimbabwe became a member of The United Nations and had to comply with the international regulations that supported education for children with unique needs. Although Zimbabwe does not have a specific legislation to support special education, the Disabled Persons Act (1992) revised 1996 and currently in 2004 has spelt out the right to education for every learner. The inclusive education philosophy adopted by Zimbabwe resulted in learners with hearing impairment being exposed to the regular school core curriculum and some additional special subjects (Mazano, 2004). The emphasis is on full support in terms of specific policy, material and human resources (Nziramasanga Commission, 1999), in an effort to enable them to access further education. Due to the international trends, the South African government tried to promote the use of South African Sign Language (SASL) by drafting the curriculum content in South African Sign Language (Peel, 2004).

## **3. Research Methodology**

The current study employed quantitative research methodology to solicit information about the curriculum, a bridge of hearing impaired children in accessing secondary education. Many factors were considered on selection of this descriptive method. Quantitative methodology is a systematic process that uses numerical data to describe the relationship of events (Burns and Grove, 2005). A questionnaire was used to collect data from participants who were teachers in a special institution. The sample was chosen through random sampling procedure. The purpose of this research design was to provide accurate answers to questions about the curriculum a bridge for children with HI in accessing secondary education (Schumacher and McMillan, 2001).

### *3.1. Research Design*

Cresswell (2008) defines research design as a grand plan for enhancing the researcher's internal and external validity. The permission letter to access schools was obtained from the Ministry of primary and secondary education. I distributed questionnaires personally and conducted interviews with heads. The quantitative research design reduced bias and distortion of data because the researcher was not part and parcel in the completion of questionnaire and data analysis. The researcher presented all the data in a table and analysed using descriptive analysis (Burns and Grove, 2005). The method enabled the researcher to describe the presented findings in tables. With the quantitative descriptive design, the researcher was able to convert data into quantifiable units. The results were explained and discussed following all statistical figures presented. Descriptive research method made it easier to use questionnaires without the interference of the researcher (Gilham, 2000). The data were collected mainly through questionnaires and interviews and analysed as descriptive statistics in form of tables. All the data were converted to percentages in each of the tables.

### *3.2. Participants*

Participants in the study provided the researcher with the information that answered research questions. Forty (40) teachers in a special school as well as two (2) heads of a special school and a neighbouring regular secondary school were the participants in this study. The focus was on their techniques in teaching curriculum content as means of bridging children with hearing impairment for further education. 30 teachers indicated that they held either Diploma in Education or Certificate in Education while ten teachers held Diplomas in Special Needs Education or Bachelor of Science in Special Needs Education degrees.

### *3.3. Sample and Sampling*

The participants were sampled from teachers in a special institution for learners with hearing impairment in Masvingo province. To arrive at the sample, the random sampling procedure was employed. I preferred random sampling procedures whereby every member had the equal chance of being included in the sample. In choosing the sample of 40 participants, ninety cards with numerals 11 to 90 were prepared and provided in a box. All those who picked cards with odd numbers were included in the sample. N=40  
A special primary school head and a regular secondary school head participated in this study and they were among the 40 participants in the study.

### 3.4. Instrumentation

The term research instrument refers to tools used to collect data by the researcher (Cresswell, 2008; Gall, Bong and Gall, 2003). The questionnaire that the researcher had chosen was reliable and valid measure of what the researcher sought to measure. Together with a questionnaire, I applied an interview technique that suited descriptive survey method.

A questionnaire is series of questions to be answered by respondents or a document that contains questions designed to solicit information (Gillham, 2000). The questions solicited information about the content of the curriculum covered by teachers, the approaches used in teaching the content as well as challenges they experienced in covering the curriculum that bridges children to secondary education.

The researcher also used an interview technique that facilitates a face to face questionnaire in a flexibility environment during interview process. The interviewer had access to non-verbal behaviour. As the purpose of the study was to investigate the possibility of the regular school curriculum in bridging students with hearing impairment to secondary education structured interviews were employed. The heads were flexible to tell why their children fail to proceed to secondary education. The researcher arrived in the morning at the institution and was granted permission to carry out the research. Those teachers who picked up odd numbers participated in the study.

The 40 participants had enough time to study and complete the questionnaire as the researcher was interviewing the head. Thereafter, the researcher collected completed questionnaire. Note-taking was for the responses from interviewed Head of a primary special school and a regular secondary school

## 4. Results and Discussions

The findings indicated that out of forty respondents (40) only ten respondents specialized in teaching students with hearing impairment using total communication. These ten participants held either Diploma in special education or Bachelor of Science degree in Special Education (B.Sc. SPED) Most of the respondents were regular trained school teachers who were learning how to handle students with hearing impairment and at the same time learning how to interpret concepts in sign language to these students who had unique needs (El-Zraight and Smadi, 2010).

From this particular study, (30%) of the respondents indicated that they used total communication as a medium of instruction, while about (20%) of the respondents preferred Zimbabwe Sign Language as a requirement of the Ministry. The (50%) of the respondents indicated that they used oral for the children to lip read because they could neither use sign language nor total communication to explain concepts. Most respondents indicated that they faced challenges in teaching language structures using sign language when the children are being tested in text every fortnight. Above all, they argued that they used oral approach because public examinations at grade seven are in text and not in sign language. Most teachers opted for interpreters and other assistive devices for effective teaching of the curriculum especially for teaching and explanation of idioms, concepts and proverbs in sign language. Below is the table showing areas in which teachers indicated to be effective.

Subjects	Not effective		Effective		Most effective		Total	
	No	%	No	%	No	%	No	%
Academic subjects	20	50%	12	30%	8	20%	40	100%
Practical Subjects	8	20%	12	30%	20	50%	40	100%
Special Areas	20	50%	12	30%	8	20%	40	100%

Table 1: Areas of expertise indicated by teachers

The table shows the areas where teachers performed either effectively or ineffectively in academic subjects of the core curriculum, practical subjects and the additional special subjects for children with hearing impairment. The researcher found out that only (20%) of the respondents revealed that they were quite at ease when teaching some academic subjects such as Mathematics while (30%) of the respondents did not enjoy teaching special areas of the deaf curriculum such as auditory training. (50%) of the respondents indicated to be effective in teaching practical subjects because they are not language related subjects. They indicated difficulties in the explanation of concepts, idioms and proverbs using signs. The difficulties in teaching language related subjects tally with what Hergaty (2009) and Belveridge (2009) found out as challenges in special needs education.

Also the researcher conducted an interview with the head of that particular special school and found out that for the past four years when he joined the school, none of their students proceeded to secondary school by that time. Respondents indicated that most students could neither read nor write so they could not be self-determined to proceed to secondary education. The head of a neighbouring secondary school, likewise, revealed that they had never enrolled any student with hearing impairment since she came to power for the past ten (10) years. The results revealed that students with hearing impairment did not bother to further their education because they complete grade seven with poor literacy skills. The findings were in agreement with Syverrud, Guardino and Selznick (2009), who confirmed that education for deaf learners should include teaching of language structures such as phonologies.

The study found out that, the content of the national curriculum that is being used in special schools was the recommended curriculum by the Ministry of Education (1996). However, the curriculum content for children with hearing impairment was criticized for lacking

emphasis on language and social skills (El-Zraight and Smadi, 2007, 2010; Hergaty, 2009). The timetable reflected all the academic subjects, special areas and practical subjects with the exception of sign language that facilitates access to other academic subjects. The findings about the available curriculum were in line with recommendation by (UNESCO, 1994; Nziramasanga Commission of inquiry, 1999) that all children with disabilities including students with HI should be exposed to national curriculum. However, the timetables displayed, showed all the academic subjects and additional curriculum of special subjects but they were just window dressing. The practice on the ground was contrary to the policy because some teachers utilize the special additional subjects as an end of the curriculum yet there are means to reach the core curriculum that bridges children with hearing impairment to secondary education.

The results have shown that (50%) of the respondents gave more time to practical subjects which most students with HI could understand. The results were in agreement with the findings by Kiyaga and Moores (2009), Mazano, (2004) who pointed out that most special schools' curricula are focused on selected practical subjects at the detriment of academic subjects because of the inability of teachers to sign. However, the practice was contrary to the philosophy of inclusive education that stresses the need for students with hearing impairment to access the same curriculum with their hearing peers so that they proceed to secondary education. Chimedza and Petersen (2003) emphasise the purpose of the curriculum which is to provide opportunities for further education and independent living. Most children with HI were not motivated by their performance so they could not proceed with their education.

Chimedza and Petersen (2003) reported that most schools misinterpret the phrase "adjustments of the curriculum to suit the individual needs" with omission of language related subjects as adjustment during interpretation of the curriculum for children with hearing impairment. Adjustments of the curriculum were in terms of adjusting teaching approaches and include their first language curriculum and not to sideline some subjects of the curriculum. Therefore, current research findings concur with Belveridge (2009), Syverrud, Guardino and Selznick (2009) and El-Zraight and Smadi (2010) that the curriculum for children with hearing impairment should reflect appropriate teaching methods for exceptional learners.

The results of the study revealed that the special school concentrated on practical subjects and spoken language as a special area such that most children failed to proceed to secondary education. Also, the results indicated that the special school failed to complete the curriculum because they spent more time trying to adjust to the needs of the child such as spoken language acquisition until the age is overdue (Chakuchichi and Badza, 2004).

From the results, medium of instructions being used differed from one teacher to another in different grades at the same school. The results have shown that the curriculum in the special school could bridge children with hearing impairment to secondary education unfortunately various challenges encountered by teachers due to lack of adequate qualifications, goals of the curriculum were not achieved. The results were in agreement with the findings by Musengi, Ndfirepi and Shumba (2012) when they reported on communication barriers between teachers and students during teaching and learning. The issue of irrelevant approaches, poor planning and interpretation of the curriculum affected effective coverage of the curriculum. Most children with hearing impairment failed to meet the basic requirements for progression to secondary education. From the results, requirements, such as literacy and numeracy were crucial for children with hearing impairment to proceed to secondary education.

A nearby secondary school head also indicated that none of the deaf students was enrolled at their secondary school since she came to power for the past ten years by then. This implies that children with hearing impairment did not proceed to secondary education not because they were some shortcomings in the curriculum but due to poor teaching of the content by unqualified teachers in special needs education. The results indicated that the teachers had some areas of expertise which implies that some areas which they were not expertise had to suffer with regard to teaching of the content. It was from the results that the highest percentage is expert in practical subjects that do not bridge these children to secondary education that requires a lot of reading and expressive writing were crucial (Belveridge, 2008).

## 5. Conclusions and Recommendations

The study concluded that the curriculum in special schools for the deaf students was quite similar to the regular school curriculum and could bridge these students to secondary education if properly taught. In practice teachers could not interpret the curriculum using sign language such that they spent most of the time trying to develop spoken language for communication which has failed.

The conclusion was drawn from the findings that 75% of the teaching personnel deployed to a special school that was under investigation were regular school trained teachers. As a result, they experienced challenges in manual teaching methods that facilitate full access to the curriculum by children with hearing impairment. Teacher qualifications were not relevant for children with hearing impairment who needed unique approaches.

Another conclusion was that children with hearing impairment do not proceed to secondary education because teacher concentrated on practical subjects that do not require explanations. The findings showed that they were expert in practical subjects and they failed to complete the curriculum. Also the study concluded that the use of different approaches that are not consistent and systematic in the school affect performance hence progression of children with hearing impairment to secondary education.

The study concluded that less time is allocated to language related subjects that prepare individuals living with hearing impairment to pass public examinations at grade seven level that bridge them to secondary education. There is need for adjustment of the curriculum to suit the needs of children with hearing impairment in particular acquisition of sign language.

The curriculum is the same as the curriculum for hearing children so what is lacking is language for communication between the teacher and hearing impaired children. Teachers were not comfortable to teach language related subjects in preparation for public examinations and progression to secondary education.

The study recommends that special institutions for the hearing impaired children should be monitored in teaching and completing the national curriculum for primary education that bridges the students to secondary education. The Ministry of primary and secondary education should insist on uniformity in the teaching approaches. It should also in-service teachers so that they become knowledgeable in the curriculum of children with hearing impairment.

The Ministry should establish secondary schools that specialize in both practical subjects and academic subjects to avoid dropouts at primary school level.

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