

Analysis of the Adaptations Required for Access and Retention of Learners with Visual Impairments in Regular Universal Primary Education (UPE) Schools

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Abstract

The purpose of the study was to analyse the adaptations required for access and retention of Learners with Visual Impairments (LVI) in regular Universal Primary Education (UPE) schools. The study was conducted in seven districts within South Western Uganda. The objectives of the study were to determine the curriculum adaptations that had been put in place to suit the needs of LVI, and to establish the physical adaptations that had been put in the environment to facilitate access and retention of LVI in regular UPE schools. The study adapted the theory of access by Ribot and Peluso (2003) which deals with all possible means by which a person is able to benefit from things, and it was supplemented by the theory of adaptation by Sherrill (2008) which deals with strategies to enable a person achieve the stipulated rights. The target population was learners with visual impairments (LVI) from established integrated schools and from regular UPE schools, Teachers of LVI from established integrated schools and from regular UPE schools, head teachers from established integrated and regular UPE schools, plus inspectors of schools in charge of Special Needs Education. This paper presents findings obtained through a mixed method research design involving both qualitative and quantitative descriptive methods with a sample of 147 respondents. Raw data was obtained through questionnaires, interviews, observation and Focus Group Discussions (FGDs). The Qualitative data was analysed using thematic analysis and descriptive statistical analysis. The main findings were that there were almost no curriculum adaptations made in the regular UPE schools due to lack of training of teachers on how to implement the newly modified curriculum which had provisions for Special Needs Education; and both regular UPE schools and established integrated schools lacked most of the required adaptations to enable LVI easily access the learning facilities and the general school environment. Overall, the school administrators and teachers generally lacked preparedness to make environmental and curriculum adaptations for LVI. The study recommends a comprehensive training of teachers in curriculum adaptations for LVI through short courses, and sensitization to the school administrators and teachers of both regular UPE schools and established integrated schools to aggressively put in place the physical adaptations that were required in order to create accessible physical environments for LVI.

Keywords: Analysis, adaptations, access, retention, Learners with visual impairments (LVI), Regular Universal Primary Education (UPE) schools, Established Integrated Schools

1.0 Introduction

Adaptations: Wright (2003) defines adaptations as changes permissible in educational environments which allow the student equal opportunity to obtain access, results, benefits and levels of achievement. These adaptations consist of both accommodations and modifications. In the context of this study, adaptations refer to adjustments made in the curriculum and the school environment to enable LVI benefit from the learning process, as well as accessing the learning centres.

Access: According to Sherrill (2008), Access refers to availing learners with suitable requirements and atmosphere to enable them achieve good learning outcomes. In this study, it is used to mean providing LVI with specialized teachers, skills and facilities such as; ADL/O&M; adapted materials, equipment and devices; adapted environment and adapted curriculum to enable them benefit from regular UPE schools.

Retention: According to Chaluda (2014), retention refers to enrolling of students in school and remain enrolled until they reach a certain grade. In this study, it is used to mean enrolling of LVI in primary school and they remain enrolled until they complete the primary education cycle.

Learners with Visual impairment (LVI): These are learners who have a limitation of one or more functions of the eye or visual system where the learner's eye sight can not be corrected to a normal level (An Azo network 2015). In this study, it is a general term that describes learners with a wide range of visual function, from low vision to total blindness.

Regular Universal Primary Education (UPE) schools: Schools which are meant for providing basic primary education to all Ugandan children of school going age; which is affordable by the government and majority of the citizens (UPE report 2012). In this study, it is used to mean government aided day schools which do not have a unit and boarding facility for LVI.

Established Integrated Schools: Refer to schools which have been in existence with an integrated system for a

long time and therefore recognized and generally accepted. (Hacker 2015 in Mirriam Webster 2015). In context of this study, they are educational settings which are recognized by government as official schools for intergration of LVI together with the sighted, with a boarding facility and unit for LVI.

1.1 Background to the study

Globally, preparedness to provide adaptations for children with visual impairments in school has been an area of concern and generally a subject of debate among educators worldwide. It even raises more concern among educators in the area of special needs education when it comes to provision of adaptations for LVI within regular school settings. A number of studies globally, in Africa and in Uganda have revealed that some of the major obstacles in teaching these learners in regular schools is lack of access to curriculum and environmental adaptations. (Njoroge 1991; McCall 2001; Kristensen, Omagor and Onen 2003; ICEVI 2005; Wamunyi 2008). In Uganda, lack of adequate resourses remain a major challenge to access and retention of LVI in regular UPE schools. UPE is an educational program which was spearheaded by the president of Uganda His Excellency Yoweri Kaguta Museven. During his presidential campaigns in 1996, he pledged to offer free education to all school age going children of 6 – 12 years within government aided schools. Enrolment was to be done on the basis of four children per family, and priority was to be given to children with disabilities. This provision attracted many learners with disabilities including those with visual impairments into regular UPE schools (UNICEF report 2015). The Education For All (EFA) Global monitoring report (2012) specified that the enrolment level of learners with disabilities in UPE schools stood at almost 97% for primary education, and was projected it to reach 100% in the next four years if particular conditions are met.

Unfortunately, the learning needs of children with disabilities were not met. (Ministry of Education and Sports (MOES) Sector fact sheet 2000 – 2012; UPE report 2012). Wamunyi (2008) has cautioned educators that though mainstreaming is an advanced approach to the desired meaningful social inclusion of learners with special needs, placing them in regular classes without meeting their learning needs in full cannot be considered a step forward in Special Needs Education. The fact sheet also revealed that a large number of LVI who were enrolled in UPE schools eventually dropped out due to lack of attention. Review of Primary Living Examination (PLE) results exhibited by UNEB / SNE records (2008 – 2012) revealed that the educational achievement of LVI has been persistently low, as compared to their sighted counterparts. Despite the studies conducted on the education of learners with visual impairment in Uganda by Kristensen et al 2003 and by Lynch, McCall, Douglas, McLinden and Bayo 2011; none of them has paid attention to aspects of the curriculum and environmental adaptations, or issues directly related to the classroom. This study examined the adaptations required for enhancing access and retention of learners with visual impairments in Regular Universal Primary Education (UPE) schools in South Western Uganda.

2.0 Objectives of the Study

The study was guided by the following objectives which sought to:

- i. Determine the curriculum adaptations that are in place for use with LVI.
- ii. Find out the environmental adaptations currently used to facilitate access and retention of LVI in regular UPE schools.

3.0 Materials and Methods

The study employed mixed methods research design also reffered to as multi – methodology to examine the adaptations required for access and retention of learners with visual impairments in Regular Universal Primary Education (UPE) schools in South Western Uganda. Mixed methods research design has been defined as integrating qualitative and quantitative data collection and analysis in a single study or a program of enquiry. (Creswel, Plano, Gutmann and Hanson 2003; in Tashakkori and Teddle 2003). The design was intended to produce good qualitative and quantitative information through the use of questionnaires, interviews, observation and Focus Group Discussions (FGDs) that collected information on the existing situation of LVI in regular UPE schools. Data that was obtained from close – ended items of the questionnaire were analyzed quantitatively, while data obtained from open ended items using interview, observation and FGD was coded, quantified, categorized and analyzed following the themes derived from the research objectives. The findings were reported in summary form using descriptive methods in tables.

4.0 Results and Discussion

4.1 Demographic data

Demographic data was discussed under the following subtitles: Prevalence of LVI in regular UPE schools, Years of teaching experience of teachers involved in the study, Demographic characteristics of teachers and LVI, and Details about the type of schools and category respondents.

4.1.1 Prevalence of LVI per region

Table 4.1 Prevalence of LVI per region

Region	No. of children with disabilities	No. of LVI	Percentage of LVI
Central	35,347	10,604	30%
Eastern	61,035	280,76	46%
North Southern	2,801	980	35%
Northern	57,831	19,663	34%
South Western	22,572	124,15	55%

NB: Adapted from Uganda Education Statistics abstract 2009.

From table 4.1 above, the percentage of LVI among the number of children with disabilities ranged from 30% to 55%. The highest concentration of LVI was found to be in South Western Uganda, and that factor prompted this study in the area.

4.1.2 Years of teaching experience of teachers involved in the study

Table 4.2 shows the years of teaching experience categorized under 1 – 10 years, 11 – 20 years, 21 – 30 years and 31 – 40 years. This categorization was based on the argument that the longer the period of teaching, the more likely the teacher would acquire skills of teaching LVI. Findings indicate that more than half of the teachers who participated in the study had little experience in teaching as they had taught for 10 years or less. Less than half of the teachers had 11 – 20 years of teaching experience, and only very few teachers had more than 30 years of teaching experience.

4.1.3 Demographic characteristics of teachers and LVI

Table 4.3 Demographic characteristics of teachers and LVI

School type	Established integrated schools			Regular UPE schools						
	A	B	C	D	E	F	G	H	I	J
School code										
Total No. of teachers per school	23	23	23	25	16	24	23	25	23	23
No. of teachers involved in study	5	5	5	5	5	5	5	5	5	5
No. of specialized teachers	4	5	5	0	0	0	0	0	0	0
Percentage of specialized teachers	17%	22%	22%	-	-	-	-	-	-	-
Years LVI had been in school	5	44	46	NS	NS	NS	NS	9	NS	NS
No. learners who were blind	11	21	22	0	0	0	0	0	0	0
No. learners with low vision	13	10	20	23	15	24	5	51	16	17
Total No. of LVI	24	31	42	23	15	24	10	51	16	17
No. of LVI involved in the study	8	8	8	8	8	8	8	8	8	8

KEY: NS = Not sure

Table 4.3 shows that only less than a quarter of the teachers who participated in the study had special education qualifications, and they were all teaching in established integrated schools. None of the teachers with special education qualifications was teaching in regular UPE schools. The table also shows that all the learners who had been categorized as being blind were enrolled in established integrated schools and learners with low vision were enrolled in both school settings. Findings also revealed that LVI had been enrolled in established integrated schools B and C for more than 40 years, and 5 years in school A. However, headteachers from almost all the seven regular UPE schools were not sure of how long the LVI had been enrolled in their schools, which revealed that they were not bothered about taking care of the special educational needs of the learners.

4.1.4 Details about the type of schools and category respondents

Table 4.4 Details about the type of schools and category of respondents

Area	Target populatio	Study pop	Sample si
Districts	14	7	7
Government aided schools with LVI	35	10	10
Established integrated schools	3	3	3
Regular UPE schools with many LVI	32	7	7
Respondents			
Item	Target populatio	Study pop	Sample si
LVI from established integrated schools	97	97	24
LVI from regular UPE schools	1,344	156	56
Sub – total	1,441	253	80
Teachers of LVI in Establi. integrated schools	69	69	15
Teachers of LVI in regular UPE schools where LVI had been enrolled in large numbers	736	159	35
Sub – total	805	228	50
Head teachers of Establi. Integrated schools	3	3	3
Head teachers of regular UPE schools with large numbers of LVI	32	7	7
Sub – total	35	10	10
Inspectors of schools in charge of SNE	14	7	7
Total	2,295	498	147

From table 4.4, the details about the type of schools used for the study and the category of respondents have been shown, whereby the government aided schools with high concentration of LVI totaled to 10, among which 3 were established intergrated schools and 7 were regular UPE schools. The category and numbers of the people who participated in the study is also presented, all making a total of 147 respondents. The detailed demographic data of participants such as names were not taken due to ethical considerations.

4.2 Analysis of the presence of adaptations required for enhancing access and retention of LVI in regular UPE schools

The task of the study was to analyse the presence of adaptations required for access and retention of LVI in regular UPE schools. The components included: curriculum adaptations and environmental adaptations.

4.2.1 Curriculum adaptations that had been put in place to suit the needs of LVI.

This objective sought to determine the extent to which the curriculum had been adapted to suit the needs of LVI. To achieve this objective, data was collected through questionnaires, interviews and FGDs. Section G of the questionnaire for teachers sought to examine the extent to which the curriculum elements had been adapted to suit the needs of LVI. The curriculum elements that were considered were: Content, teaching methods, examination modifications and sporting activities. Findings indicated that almost all the regular UPE schools had not made any curriculum adapted activities in most of the curriculum element items. The only adapted item which they involved in was “excursions”; and the scores obtained were far below average. The schools had not made any adaptations in the rest of the curriculum element areas: Content modification; teaching methods Examination modifications and adapted sports. All the three established integrated schools had made sufficient curriculum adaptations in most of the curriculum element items: Content modification, teaching methods, “Examination modifications” and Participation in adapted sports. Findings however, indicated that the established integrated schools had not made sufficient participation in the sporting activity “Show down”.

Table 4. 5: Adaptation of the intended curriculum

School type		Established integrated schools			Regular UPE schools							
School code	Element score	A	B	C	D	E	F	G	H	I	J	
Content												
Content modified for LVI	10	6	7	8	0	0	0	0	0	0	0	
Teaching methods												
Remedial lessons in unit	9	7	9	9	0	0	0	0	0	0	0	
Braille/Large print reference information	8	4	5	6	0	0	0	0	0	0	0	
Excursions	7	2	3	3	2	2	2	2	3	2	2	
Examination modifications												
Braille questions	6	5	5	5	0	0	0	0	0	0	0	
Large print questions	5	2	2	2	0	0	0	0	3	0	0	
Extra time provided	4	3	3	3	0	0	0	0	3	0	0	
Participation in adapted sports												
Goal ball	3	2	2	2	0	0	0	0	0	0	0	
Show down	2	1	1	1	0	0	0	0	0	0	0	
Adapted athletics	1	1	1	1	0	0	0	0	0	0	0	
Total element score	55	33	38	40	02	02	02	02	06	02	02	
Percentage	100%	60%	69%	72%	4%	4%	4%	4%	11%	4%	4%	

NB: Ranking of curriculum content areas adapted from UNESCO / MOES (2011): Life skills curriculum for Primary School teachers in /Uganda.

4.2.2 Physical adaptations that had been put in the environment to facilitate access and retention of LVI in regular UPE schools

This objective sought to establish the extent to which the physical environment had been adapted to facilitate access to basic education by LVI. To achieve this objective, data was collected through observation and FGDs. Section E of the observation schedule was designed to guide in observing whether the physical environment had been adapted to facilitate access by LVI. The specific items that were observed in the physical environment were: Steady lighting, enough space between seats, easy access to learning centers, free space for demonstrations, clear shorelines to major places, clear landmarks, raised surface around the latrine / toilet hole, contrasting colors on doors / windows and obstacle free environment.

Findings indicated that the physical adaptations that had been put in place in all the regular UPE schools were “clear landmarks” and “clear shorelines to major places”. Most of these schools lacked adaptations in: Steady lighting, enough space between seats, easy access to learning centers, free space for demonstrations, raised surface around the latrine / toilet hole, contrasting colors on doors / windows and obstacle free environment. Findings also indicated that the three established integrated schools had made sufficient adaptations in: Steady lighting, enough space between seats, easy access to learning centers and raised surface around the latrine / toilet hole”. However, they lacked adaptations in: free space for demonstrations, clear shorelines to major places, clear landmarks, contrasting colors on doors / windows and obstacle free environment.

Table 4.6: Adaptation of the physical environment

School type	Established integrated				Regular UPE							
		A	B	C	D	E	F	G	H	I	J	
Adaptations	Value											
Steady lighting	9	8	8	7	5	4	4	4	4	3	4	
Enough space between seats	8	7	6	6	3	3	3	4	4	3	3	
Easy access to learning centers	7	5	6	6	2	2	2	2	2	2	2	
Free space for demonstrations	6	3	3	3	3	3	3	4	6	4	3	
Clear shorelines to major places	5	2	2	4	2	4	3	4	4	4	3	
Clear landmarks	4	2	2	4	1	3	3	3	4	3	3	
Raised surface on latrine hole	3	2	3	3	0	0	0	0	0	0	0	
Contrasting doors / windows	2	1	2	1	1	1	1	1	2	1	1	
Obstacle free environment	1	0	0	1	0	0	0	0	1	0	0	
Total element score	45	31	32	35	17	20	19	22	27	20	19	
Percentage	100%	67%	71%	78%	38%	44%	42%	49%	60%	44%	42%	

NB: Ranking of items was adapted from the environmental checklist for developing independence, by Brown 2013; (a program specialist).

5.0 Conclusion

In this study, the determinants of presence of environmental adaptations required for access and retention of LVI in regular UPE schools were: Curriculum adaptations and environmental adaptations.

Regarding curriculum adaptations, the study concluded that there were almost no curriculum adaptations that were being implemented in the regular UPE schools due to lack of training of teachers on how to implement the newly modified curriculum which had provisions for Special Needs Education.

Regarding physical adaptations in the environment, the study concluded that both regular UPE schools and established integrated schools lacked most of the required adaptations to enable LVI easily access the learning facilities and the general school environment.

Overall, there is still a challenge regarding the above two requirements, and recommendations have been made. The researcher therefore reached the conclusion that access and retention of LVI in regular UPE schools are greatly influenced by curriculum and environmental adaptations. This finding implies that access and retention will be affected by lack of curriculum implementation and environmental adaptations.

In view of the above conclusions, it is clear that the study achieved its purpose which were stated in two objectives as shown in chapter one and analyzed in chapter four. The study gaps were further filled by the information obtained from the research instruments namely: questionnaire, interview schedules, Focus Group Discussion guides and observation schedules. The study indicated that overall, the adaptations required for access and retention of LVI in regular UPE schools were generally lacking. This finding implied that there was need to guarantee good quality of education to the learners, which would only be achieved through the provision of human and financial resources to support their educational needs and the needs required for independent living skills.

6:0 Recommendations

Based on the findings, the following was recommended:

- Sensitization to the school administrators of regular UPE schools and established integrated schools, to aggressively put in place the physical adaptations that were required in order to create accessible physical environments for LVI.
- A comprehensive training in curriculum adaptations for LVI through short courses; and teachers in regular UPE schools to make regular educational tours to the established integrated schools in order to draw some lessons concerning curriculum adaptations for LVI.

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