

**An Assessment of Primary School Teachers' Competences in
Implementing the 2013 Revised Curriculum in Zambia: A
Case Study of North western Province**

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STRAND ONE:

*Teacher Professional Development in Africa: Developing Knowledge, Skills, and Values in STEM
learning/teaching engagements.*

2. Teacher Professional Development for Competency Based Education

STRAND TWO:

STEM Curriculum Development Implementation and Assessment: From Theory to Innovations.

2. Pre-service Teacher Development: Abilities, Skills and Values

ABSTRACT

There seemed to be a dearth of knowledge by Colleges of Education in Zambia in general and Solwezi College of Education (SOCE) in particular in understanding how their products were fairing and the competence gaps they had in implementing the 2013 revised curriculum. This study assessed primary school teachers' competences in implementing the revised curriculum in North Western Province of Zambia. The purpose of undertaking this assessment was to identify planning, methodological, assessment and knowledge gaps in teachers' competencies in implementing the revised curriculum, in order to provide rightful interventions and also to inform practice in the College. These competencies were targeted as they were key effective curriculum implementation strategies. The study targeted former students of SOCE who were serving teachers in the schools within North-Western Province. A randomized cross-sectional survey design was employed. Document analysis, lesson observations, focused group discussions and interviews were used to obtain primary data in the field. Quantitative data were analyzed using Chi-square with the aid of statistical package for Social Sciences at (two tailed) 95 % level of significance. Qualitative data were analyzed according to themes and reported in percentages. Analysis of assessment items (tests) suggested that teachers lacked the competences for structuring acceptable assessment items. The main challenge was the lack of textbooks; particularly for Grades 4 and 7 to support the implementation of the revised curriculum. The main findings were that majority of the teachers did not have the rightful competences for implementing the 2013 revised curriculum. The study concluded that majority of the teachers did not possess the rightful competences, thus recommended that they be retrained in order re-sharpen their competences through continuing profession development (CPD).

Key words:

Curriculum, planning, implementation, assessment

1. Introduction

Major reforms have characterized both the school and teacher education systems since 1964 in Zambia. At the school education level major reforms have been the change from primary and secondary education to basic and high school education in 2000; the change from basic education to primary education and high school to secondary school education in 2013. These changes at the school level of education triggered changes in teacher education as well. At the primary school level of teacher education the Zambia Teacher's Primary Course (ZPC) was changed to Zambia Basic Education Teacher's Course (ZBEC), then the Zambia Teacher Education Reform Programme (ZATERP) 1998 to 1999; which also gave way to Zambia Teacher Education Course (ZATEC) in 2000. In 2013 the Government of the Republic of Zambia (GRZ) introduced the 2013 revised curriculum at school level with a pedagogic shift from positivist to constructivist approach of teaching and learning. This methodological paradigm shift and salaries harmonization issues necessitated the revision of the Teacher Education (TED) curriculum in Colleges of Education from ZATEC which was at Primary Teachers' Certificate to Primary Teachers' Diploma (PTD) in the same year. The PTD programme provides student teachers with an opportunity to acquire skills, values and positive attitudes useful for facilitating teaching and learning processes in the schools (MoGE, 2013). Its content and pedagogy are linked to the Primary School education curriculum. Student teachers following the PTD are adequately exposed to both the school content and pedagogy of delivering it to prospective learners whilst in college in order to strengthen the teacher training process and enable student teachers effectively implement the revised curriculum in primary schools. Assessment is focused on students showing how much they have acquired in terms of pedagogical knowledge and skills (MoGE, 2013: 2016). These reforms in primary teacher education were meant to respond to the changes in the primary school education curriculum and align primary school teacher training programmes to the school curriculum so that teachers had the necessary competences of teaching in the schools (MoGE, 2013: 2016; MoGE, 1996).

Based on these reforms in both primary school and teacher education curricular coupled with issues of salaries harmonization, the Ministry of General Education (MoGE) (then MESVTEE) phased out the ZATEC in 2013. This resulted in Primary School Teachers' Colleges of Education countrywide to start providing teacher education at diploma level using the 2013 revised curriculum. In view of this, the Government further directed that all Primary School Teachers with Primary Teacher's Certificate) PTC needed to upgrade to PTD. To this effect all the Primary School Colleges of Education in Zambia started upgrading those with PTC to PTD. Solwezi College of Education (SOCE), for instance, has been training and upgrading primary school teachers in Zambia in general and North-western Province in particular since 1977. From the inception of the PTD in 2013, the college has produced 834 teachers in addition to the many teachers it has produced through ZPC, ZBEC, ZATERP and ZATEC most of whom are serving within the province. With the introduction of the 2013 primary school education curriculum all the primary school teachers whether trained during the ZPC, ZBEC, ZATEC or PTD are implanting it in the schools. Despite the large outputs of teachers from SOCE, the college is in part of knowledge in understanding how its 'mixture' of teachers is fairing in teaching the revised curriculum in the schools. Yet such feedback is important

in informing and evaluating education outcomes and practice. Very little has been done to assess the teachers' competence gaps if any to determine whether or not they have the rightful competences necessary for implementing the 2013 revised curriculum in the primary schools; amidst strong public perception that the teachers are half baked (MoGE, 2016). There was therefore need to undertake this study to identify the gaps in order to provide rightful interventions. It is against this background and in this context; this comprehensive systematic assessment of teachers' competencies in implementing the revised curriculum in primary schools in the Province was undertaken by the college. This study mainly focused on assessment of the teachers' lesson planning, implementation, content and assessment competencies; and identifying the gaps in implementing the 2013 revised curriculum among primary school teachers from SOCE in Primary Schools in North-western Province.

2. Literature Review

This literature review details what has been done and clearly brings out the gaps that should be filled as detailed under the various headings below.

2.1 Zambia Education Curriculum

It is envisaged that the 2013 revised curriculum would equip learners at all levels of education with vital knowledge, skills and values that would be necessary for contributing to the development of society and the economy (MoGE, 2013). To realize this, the 2013 revised curriculum has been linked at all levels, from Early Childhood Education (ECE) to Tertiary Education and Adult Literacy (MoGE, 2013: 2016). The necessary career paths for learners have been provided. This it is assumed will accord learners an opportunity to progress according to their abilities and interests. The 2013 Zambia Education Curriculum Framework (ZECF) is backed up by the Education Act No. 23 of 2011 which mandates the MoGE to be the custodian of quality education provision by ensuring that all providers adhere to the policy regulations and curriculum (Education Act No. 23 of 2011). Therefore, all learning institutions should have the ZECF and other important curriculum related documents and syllabi. This raises the challenge of access. It is not clear from the ZECF how the learning institutions would access those materials. But even here issues of quality are doubtful as it is not clear from the ZECF how teachers would be adequately trained (oriented) given that even some of those teachers who were trained by the old teacher courses at Certificate level will still have to teach the revised curriculum; also considering that curriculum supporting documents such as textbooks seem not to have been put in place prior to the implementation of the 2013 curriculum at all levels of learning. This could affect teachers' competencies negatively.

2.2 Strategies aimed at sharpening Teachers' Competences

Low learner achievements and poor quality at primary school education in Zambia have been observed and these have been attributed to among other factors half baked teachers (MoGE 2016). MoGE (then MOE) contends that the outstanding achievement of teacher training colleges is that they have never failed to provide the country with a regular supply of qualified teachers, but have

been handicapped in the accomplishment of their mission by inability to bring the quality of their output to the level they would have desired (MOE (1996). The Teaching Profession Policy notes that in order to foster the quality and effectiveness of the education system, the MOE would promote the quality of individual teachers and of the teaching profession as a whole (MOE, 1996). In this regard a number of teachers' education programmes have been implemented in the country with specific foci.

2.3 Curriculum Situational Analysis at Primary School and Teacher Education Levels

Since independence in 1964, the MoGE has undertaken three major education policy reforms in its quest to improve the quality of education provided to learners at different levels (MoGE, 2016). The Education Act of 1966 was meant to overhaul the whole education system in order to meet the aspirations of an independent African country (MoGE, 2016; MOE, 1996). The Act paved way to some reforms in Primary and Secondary Education which were aimed at standardizing and diversifying the curriculum, besides relating the content to the needs of the learners. At the primary school level, the Government introduced English Language as a Medium of Instruction from Grades 1 to 7 (MoGE, 2013: 2016). There was also the integration of some learning areas such as Homecraft, Needlework and Hospitality as Home Economics; Carpentry and Joinery, Metal Work, Leather Work and Bricklaying to Industrial Arts, while Agricultural Science and Natural Science became General Science (MoGE, 2016). In addition Geography and History were integrated and offered as Social Studies (MoGE, 2013: 2016). At Teacher Education level, in 1966, the Government introduced the Zambia Primary Course (ZPC) whose focus was to develop competences in trainee teachers that would enable them teach all primary Grades, Grades 1 to 7. Besides, the ZPC imparted English Language skills to trainee teachers to enable them use English as a Medium of Instruction and communication in all the subjects (MoGE, 2013: 2016). The National In-service Teachers' College (NISTCOL) played a pivotal role in retraining teachers in the ZPC. Before this reform, Primary School teachers were trained to teach either at Lower Primary or Upper Primary. The two courses were: 2 Year Lower Primary Teacher's Course (L2) and 2 Year Upper Primary Teacher's Course (U2) (MoGE, 2013: 2016). The ZPC ran from 1966 – 1990.

The Education Reform of 1977 brought further changes in education system. The Primary school and part of the Junior Secondary School Education (Forms 1 and 2) became basic School Education while the Senior Secondary Education and part of the Junior Secondary (Form 3) became High School Education (MoGE, 2013: 2016). Basic Education was to be completed in nine years; Grades 1 to 9; whereas High School education became a three year course; Grades 10 to 12 (MoGE, 2013: 2016).

At the Teacher Education level, the Zambia Primary Teachers' Course (ZPC) was renamed Zambia Basic Education Teacher's Course (ZBEC) in order to link it to the school course (MoGE, 2013: 2016). The curriculum for the ZBEC underpinned the importance of teaching survival and communication skills ((MoGE, 2013: 2016). Practical subjects such as Industrial Arts and Home Economics and Hospitality were revamped and communicative methodology became the main feature in the teaching and learning processes (MoGE, 2013: 2016). These reforms were

implemented in the middle of 1980s (MoGE, 2013: 2016). ZBEC) was implemented in the late 1990s. ZBEC was followed by Field-Based Teacher Training Approach (FIBATTA) (1997); which was implemented only for a term and failed at the implementation stage, then came the Zambia Teacher Education Reform Programme (ZATERP) from 1998 – 1999; which was a DANIDA / GRZ funded programme whose focus was curriculum strength; and was implemented on the assumption that learners had already the content from their secondary school education so they would do only one year in college and another one year in the field and then graduate. ZATERP worked on the principle that practice was better theory learner-centred. One of its strengths was that it was heavily supported with money and teaching and learning materials to support its implementation. ZATERP was piloted in three teacher education colleges namely; SOCE, Kitwe and Mufulira. Based on the National Policy on Education, Educating Our Future of 1996, the teacher Education Department in 2000 reformed the Zambia Basic Education Teacher's Course to Zambia Teacher Education Course (ZATEC) and this followed a change in Teacher Education Curriculum (MoGE, 2013: 2016). The ZBEC consisted of a large number of separate subjects which had only few links. The subjects competed amongst each other creating both superficiality and overcrowding (MoGE, 2013: 2016). On the other hand ZATEC assumed that children do not view their life experience in neatly compartmentalized segments but rather holistic with no boundaries. In view of this idea, ZATEC adopted a concept of Study Areas in which subjects were grouped according to clearly definable relationships among them (MoGE, 2013: 2016). From 12 traditional subjects that ZBEC offered; English, Mathematics, Science, Home Economics and Hospitality, Physical Education, Spiritual and Moral Education, Education, Zambian Languages, ZATEC integrated them into six Study Areas (Literacy and Languages, Education, Mathematics and Science, Expressive Arts, Technology Studies and Social, Spiritual and Moral Education) (MoGE, 2013: 2016). According to ZATEC, students spent one year in college and the other year in the school. The one year School Experience was meant to give student teachers enough practice in their training and at the same time increase the number of teachers, and subsequently reduce the number of untrained teachers in Basic Schools(MoGE,2013: 2016). ZATEC ran from 2000 to 2013.

In the same year, 2000, the Curriculum Development Centre (CDC) also embarked on the school curriculum review starting with the Lower and Middle Basic Education (Grades 1 to 7) (MoGE, 2013:2016). The purpose of this review was to link the school curriculum to Teacher Education (MoGE, 2013:2016). Specifically, the review that commenced in 2000 was meant to re-define the desired learner, the teacher-educator/instructor and the teaching/learning outcomes so as to make education relevant and responsive to the individual and society (MoGE, 2013: 2016). In order to respond to the developmental needs of the nation such as those of becoming a middle income economy by 2030 as well as those of the individual learners a number of plans have been developed. In 2013 the MoGE implemented the revised curriculum whose focus is equipping learners at all levels with vital knowledge, skills and values that are necessary for contributing to the development of the society and the economy so as to attain the nation's vision 2030. To this effect the 2013 revised curriculum has been linked at all levels, from ECE to tertiary Education and adult literacy. The revised curriculum has also provided the two necessary career paths – vocational

and academic; for learners at secondary school level. It is envisaged that this will accord learners an opportunity to progress according to their abilities and interests. At Teacher Education level, training is provided at diploma level using the revised curriculum. Of all the thirteen main areas of focus of the 2013 ZECF none is on teacher education (training), and so one wonders how teachers' competencies in the schools could be re-sharpened if the 2013 ZECF is silent about it.

2.3.1 Planning

Planning to teach by teachers is influenced by the availability of relevant documents and resources coupled with good training (Muzumara, 2011). To this end the MoGE has clearly guided through the 2013 ZECF that all learning institutions should have the ZECF and other important related curriculum support materials and documents such as syllabi and textbooks; which shall function as key daily guides and tools to ensure the provision of quality education (MoGE, 2013). The MoGE guides by stating that, it should be noted that the ZECF does not provide detailed descriptions of subject content or desired learning outcomes, it leaves such level of information to the syllabi and in some cases, the Teacher Curriculum Manuals (MoGE, 2013). Critical analysis of the soft copies of the syllabi in circulation and in use in schools suggests that some topics have only one specific outcome, others none and in some cases the knowledge, skills and values (attitudes) sections of content (competencies) have no input at all. This may affect negatively planning by the teachers; especially the inexperienced teachers.

2.2.1 Lesson implementation

The revised curriculum education guiding principle is centred on the Outcomes-Based Education (OBE) which moves away from Behaviorism to constructivism pedagogies (MoGE, 2013; Plessis, 2002; GRZ, 2007). This approach seeks to link education to real life experiences as it gives learners skills to access, criticize, analyze and particularly apply knowledge (MoGE, 2013). In this approach learners are given practical experiences during the teaching and learning processes that help them gain life skills (MoGE, 2013). This approach has been adopted in response to concerns in the recent past that teaching was not responding to the needs of society (MoGE, 2013). To respond to these concerns School- Based Continuing Profession Development (S-BCPD) programmes are currently being implemented in schools with the help from JAICA (GRZ, 2007; Monk, 1999). It remains to be established whether this really is being implemented in the classroom or not, and also whether the teachers have the rightful competencies to plan their lessons based on outcomes bearing in mind that these are teachers that have been used to the objectives based learning.

2.2.2 Learners assessment

One of the three perspectives from which quality is judged in the OBE system is the outputs from the system (MoGE, 2013). A number of principles must be observed to ensure effective implementation of OBE in the learning institutions. One of them is reflective designing (MoGE, 2013; Plessis, 2002). The starting points for all curriculum design are clearly defined learning experiences that learners are to achieve during the courses or programmes (MoGE, 2013).

random sampling. A revised school curriculum has been implemented in the country but assessment of teachers competencies graduating from the colleges of education seemed not to have been done. Geographic access was a key consideration in choosing North-Western Province. All the districts could be reached from Solwezi (which home of SOCE) within a day. Educationally, all the districts are similar. However, some are more rural, and their populations are more geographically spaced thus the schools.

North western province has a total number of 1, 424 teachers in primary schools with a PTD. This number includes most of the teachers from the 834 that had graduated from SOCE. These teachers were targeted since they had undergone training through the PTD revised curriculum with emphasis on knowledge, skills, values and pedagogical competencies by the college. The sample size was 427 Primary School Teachers with PTD from SOCE. These were randomly picked from five out of the 11 districts in the province. The five districts were Kabompo, Solwezi, Mwinilunga, Mufumbwe and Manyinga. These districts were purposively picked on the basis that they had more teachers with PTD from SOCE than the others.

In each one of the sampled districts, five schools which were randomly selected from lists of schools provided by Provincial Education Officer (PEO) were visited (Appendix F). This sample size was calculated on a 1-sample comparison of proportions considering 95 % level of confidence and 80 % Gpower at two-tailed using the SPSS version 20. Given the estimation that the calculated sample-size was 427 and an estimated five teachers per school, five schools were considered adequate to obtain the needed sample. District Education Board Secretaries (DEBSes) in the sampled districts, Head teachers of the sampled schools and the sampled teachers were interviewed. These were purposively picked. Interviews were conducted using structured interview guides (Appendices B, C and D and E). This was done to obtain in-depth data on perceptions of teachers' content, lesson planning, implementation and assessment competences. Analysis of past Teaching Practice and Final Examination results of former student teachers at SOCE were conducted. Lesson observations and documents (Individual Annual Work Plans, Schemes of Work, Weekly Forecasts, Lesson Plans and Assessment Items) analyses were done using a pre-tested SAI (Appendices A and E) to obtain data on knowledge, lesson planning, implementation and assessment competencies of the teachers. Challenges faced by the teachers and interventions to be provided were explored through interviews and field observations (Appendices B, C and D).

The research team sought permission from the PEO before going to the districts. Trained field research assistants (three) visited each school, sought permission from the head teacher, and obtained verbal consent from the teachers to conduct the survey. The field team arrange interview session at each school with the aid of school management. They briefed each teacher about the study objectives and procedure and obtained individual consent before conducting the assessment. Arrangement for the interviews, document analysis and lesson observations were made. The research assistants completed the assessment instruments, responded to the participants' questions regarding, and maintained field notes on the data-collection process. Collection of data in the field was done between February and March 2018.

Short-answer responses were reviewed and code lists developed. All the data were edited, compiled and coded before entering them into the computer, using the Epi Info 6 software. The quantitative data from the SAI were analyzed using the ANOVA with the aid of statistical Package for Social Science (SPSS) version 20 at 95 % confidence level at one tail. Qualitative data on perceptions were analyzed according to themes. Data with common theme were grouped together and reported in percentages and ranges. Quality of data was assured through monitoring, supervision, and checking for the consistency of data. For performing cluster analysis, each school was considered as a unit (containing a group or cluster of teachers) and inference was drawn on these rather than individual teachers. Different results will be obtained from teachers by accumulating results on individual teachers in the respective schools. The test statistical values and the p values of the ANOVA were also presented.

4. Results

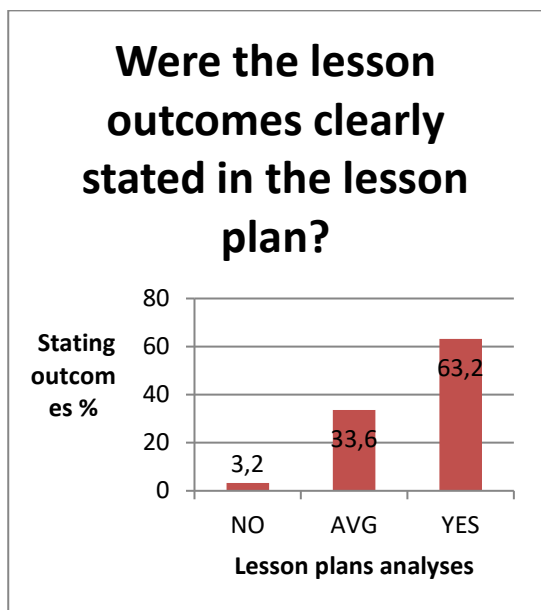
The teachers' competencies were assessed using four benchmarks namely; ability to plan for teaching, deliver lessons and assess pupils' achievement. Under planning the ability of the teacher to do annual individual work plan, scheme, weekly forecast and lesson plan were considered. These documents on teaching files were assessed for conformity to recommended standards and relevance to syllabus. The second part was lesson delivery (implementation); the ability of the teacher to deliver a subjective lesson planed, enhance learners' subjective learning and evaluate a lesson were assessed through lesson observations and assessment of teaching files in the sampled schools using the assessment instrument (Appendix A). The last part was on assessment; here the ability of the teachers' to assess learners was determined through document analysis of set assessment instruments such as test items, home work, marking keys, samples of marked scripts and progress charts. Results from document analyses, lesson observations and interviews on SOCE teachers' competencies in implementing the 2013 revised curriculum in primary schools based on these three outlined benchmarks are summarized and presented under various headings in the sections below.

4.1 Results from Document Analyses Perspectives

The findings from analyses of lesson plans, schemes of work, weekly forecasts and individual work plans are summarized and presented below.

4.1.1 Planning- Ability of planning a Lesson

Results on The Ability of teachers to set up lesson outcomes are presented in Figures 4.1.1.1 to 4.1.1.5 below.



4.1.1.1 Ability to set lesson outcomes

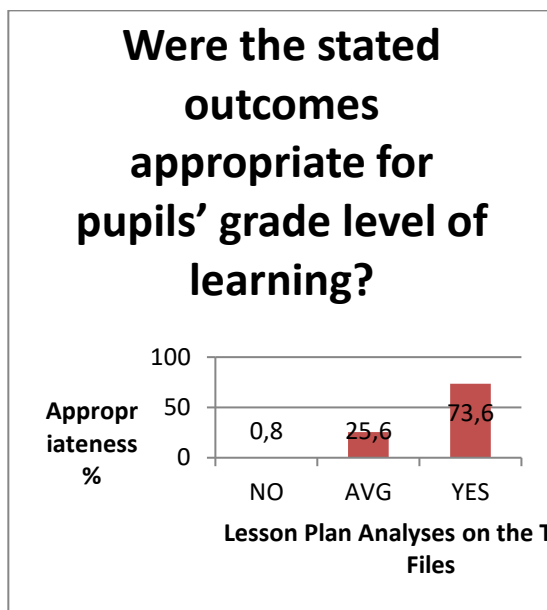


Fig. 4.1.1.2 Ability to set Lesson Outcomes

Fig.

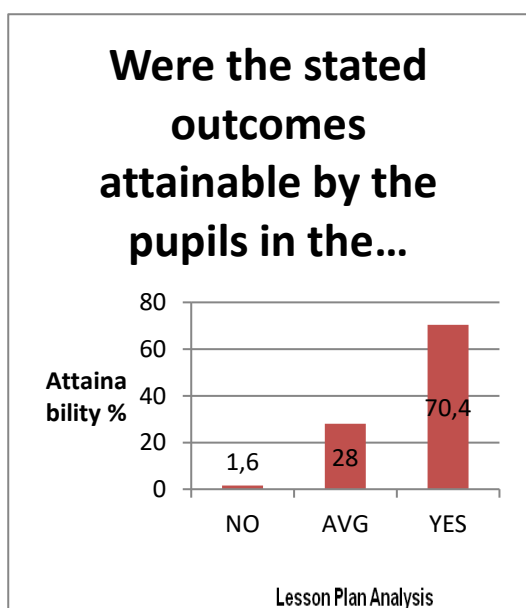


Fig. 4.1.1.3 Ability to set attainable lesson outcomes

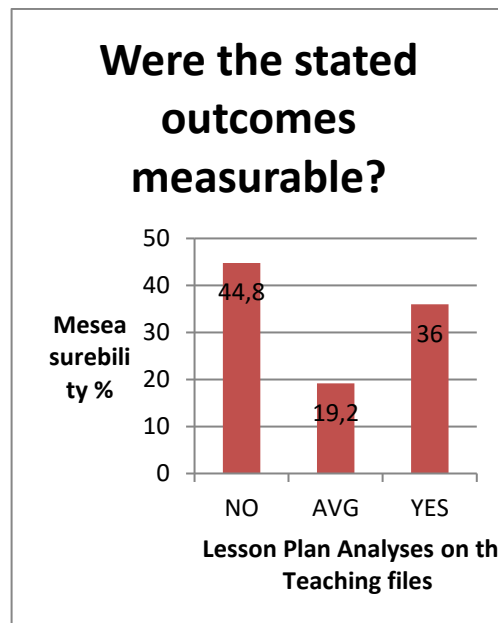
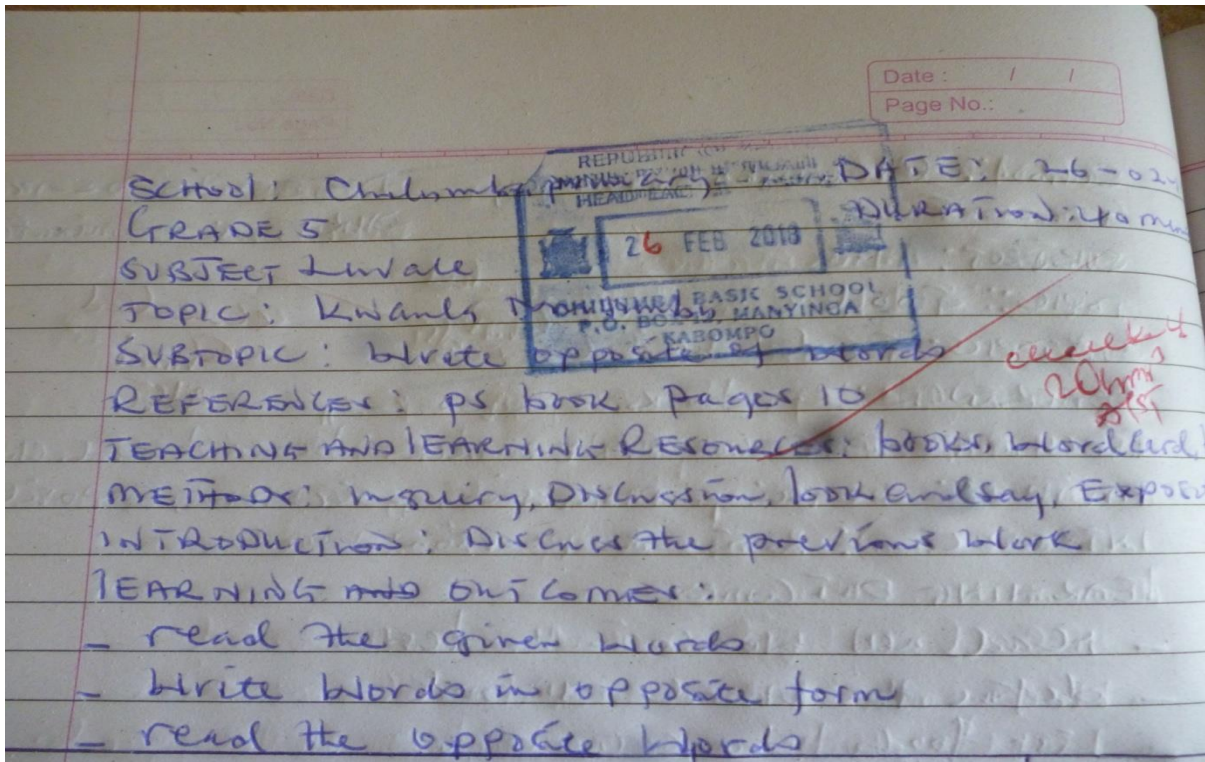


Fig. 4.1.1.4 Ability to set measure. outcomes



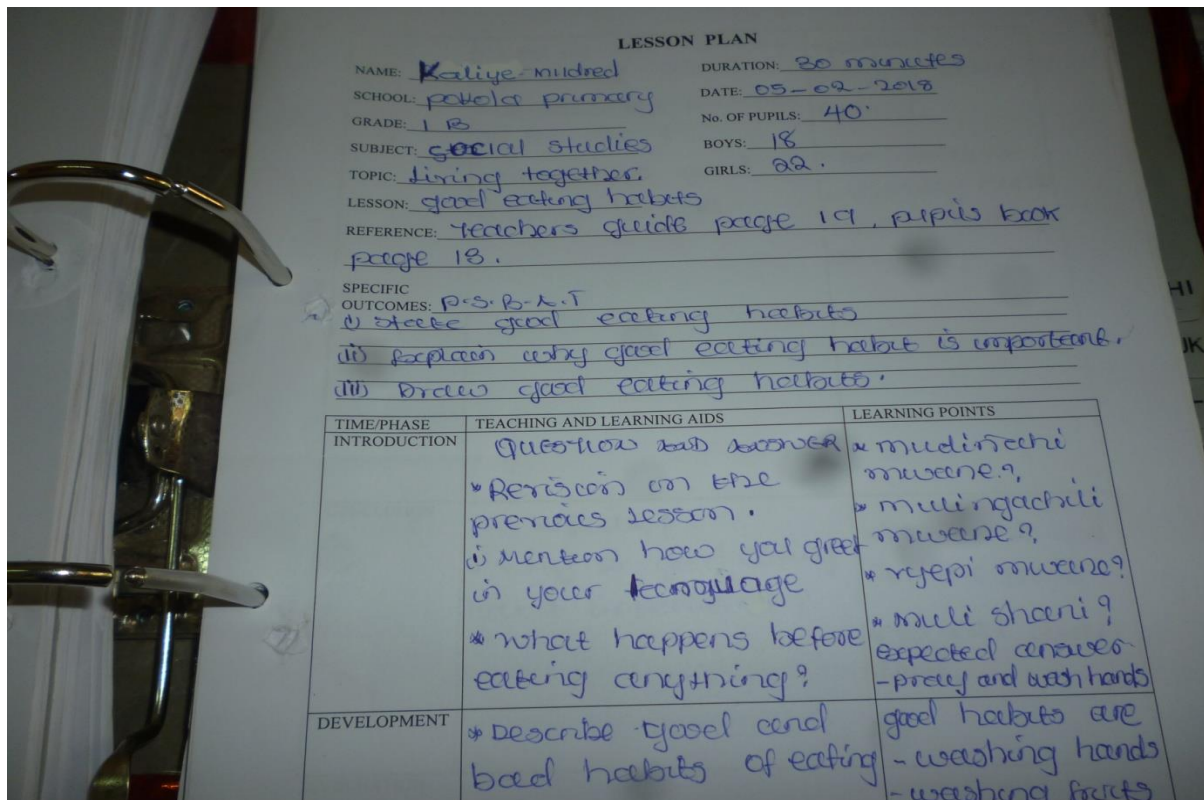


Figure 4.1.1.5 Samples of Lesson Outcomes

4.1.2 Planning – Ability of structuring a Lesson

Results on the ability of teachers to structure a lesson were as presented in Figures 4.1.2.1 to 4.1.2.7 below.

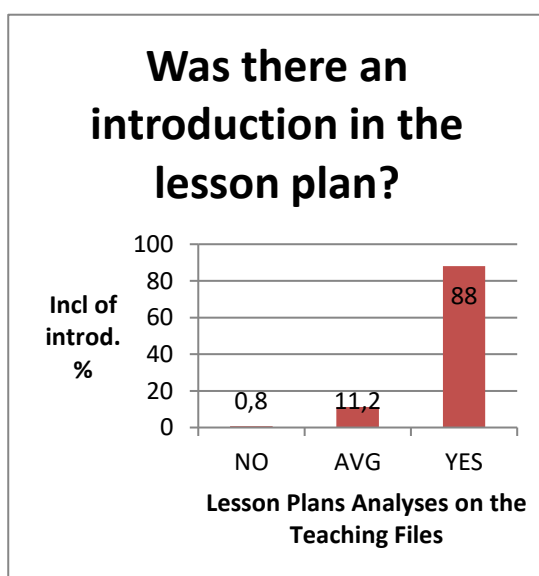


Fig. 4.1.2.1 Ability to introduce a lesson

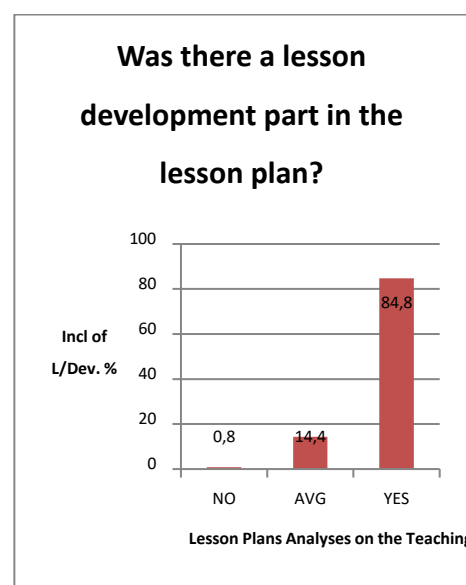


Fig. 4.1.2.2 Ability to develop lesson

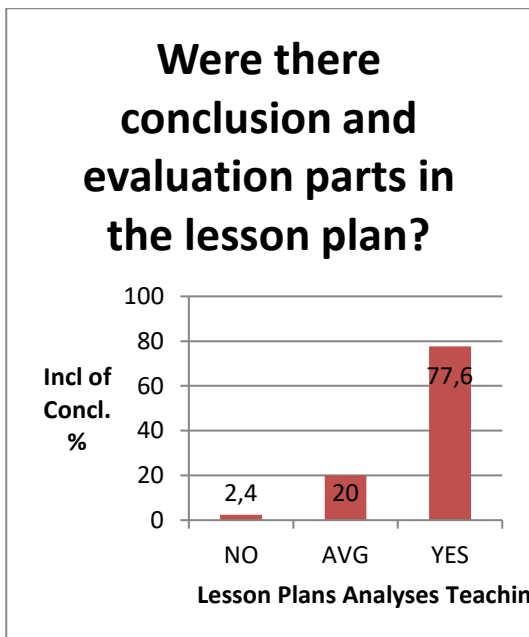


Fig. 4.1.2.3 Ability to conclude & evaluate lessons

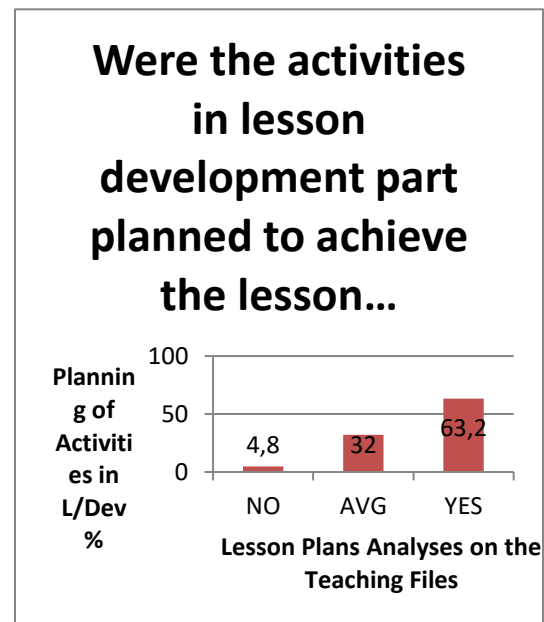


Fig. 4.1.2.4 Ability to plan lesson activities

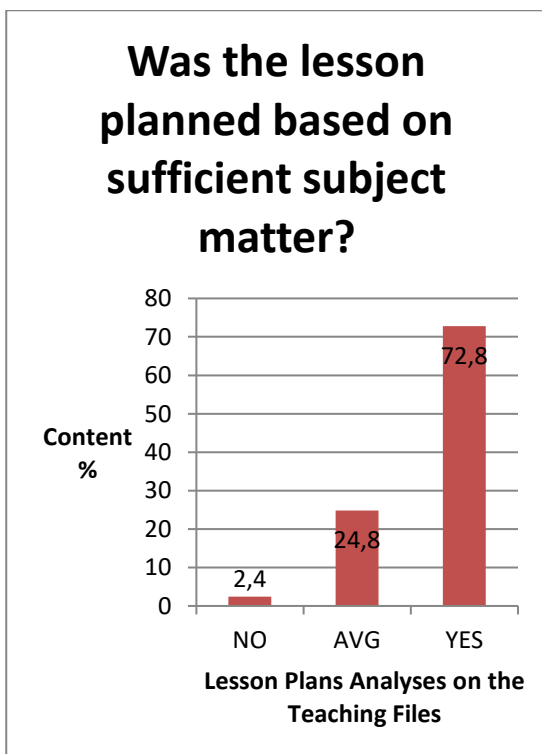


Fig. 4.1.2.5 Sufficient knowledge

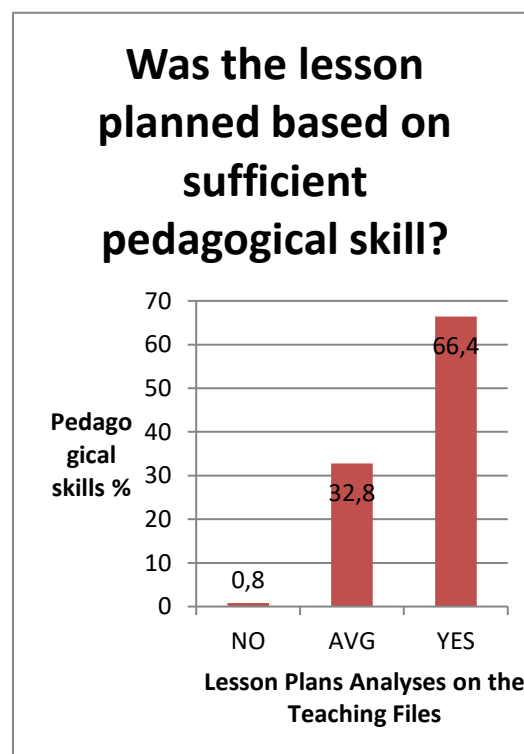


Figure 4.1.2.6 Sufficient pedagogical skill

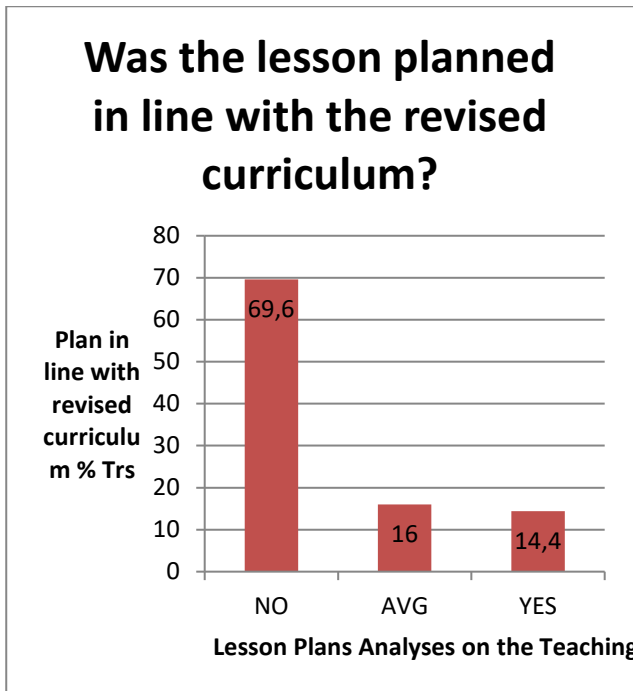


Figure 4.1.2.7 Revised curriculum

4.1.3 Planning -3 Ability of Considering Pupils

Results on the ability of the teachers to consider pupils in planning were as presented in Figures 4.1.3.1 to 4.1.3.11 below.

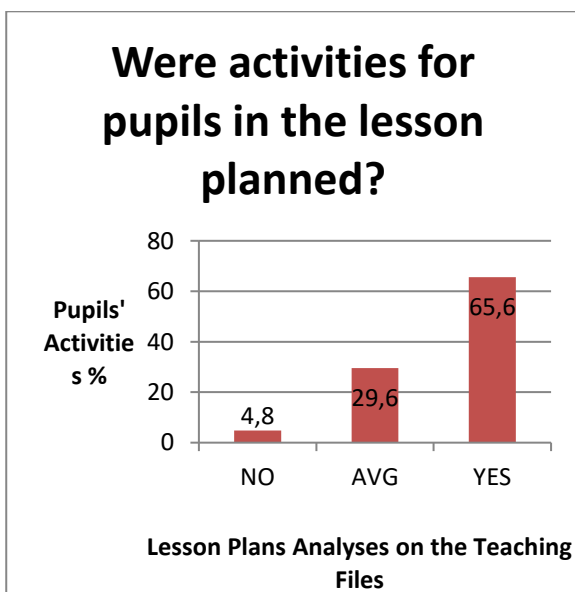


Fig. 4.1.3.1 Considering pupils' knowledge in planning activities

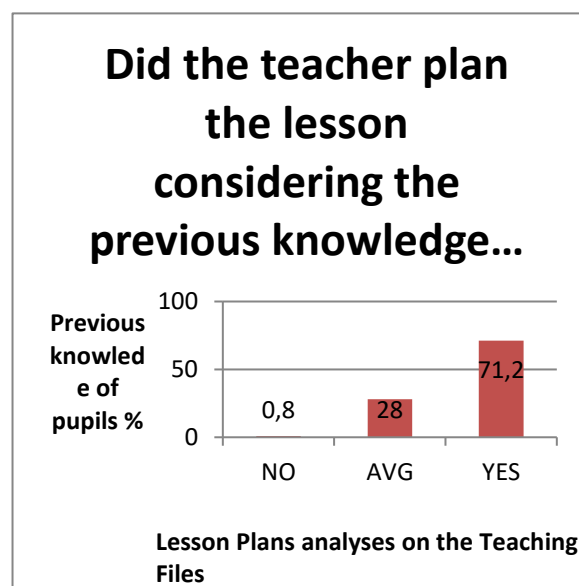


Fig. 4.1.3.2 Considering previous

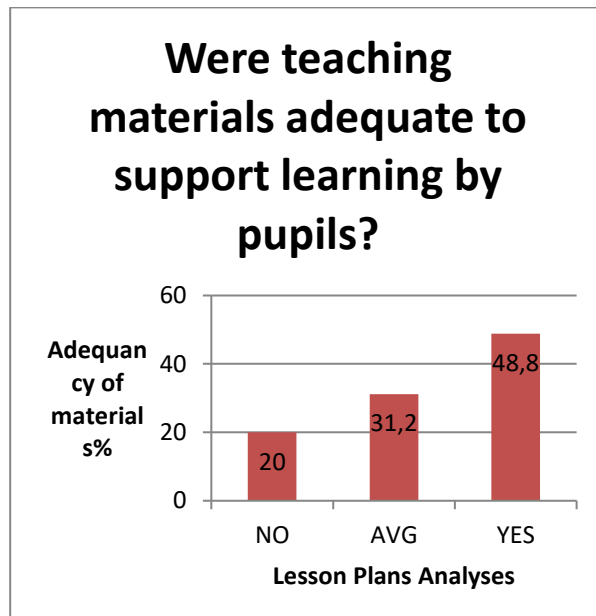
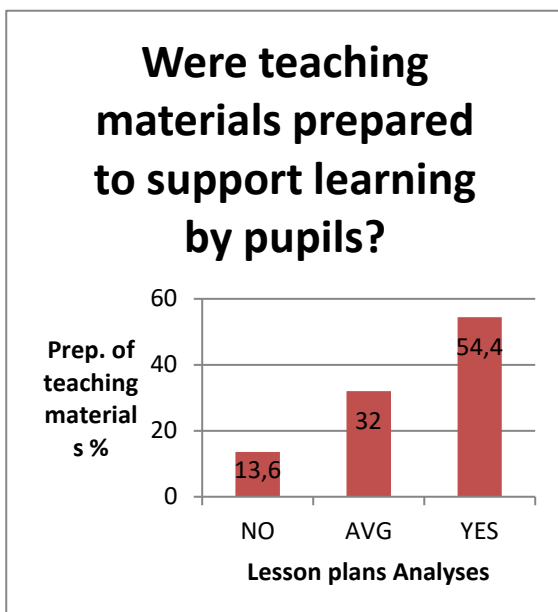


Fig. 4.1.3.3 Ability to prepare teaching materials Fig. 4.1.3.4 Adequacy of prepared materials

4.1.4 Overall Evaluation - Ability of planning a lesson

Were the teachers able to plan learner-centred Lessons?

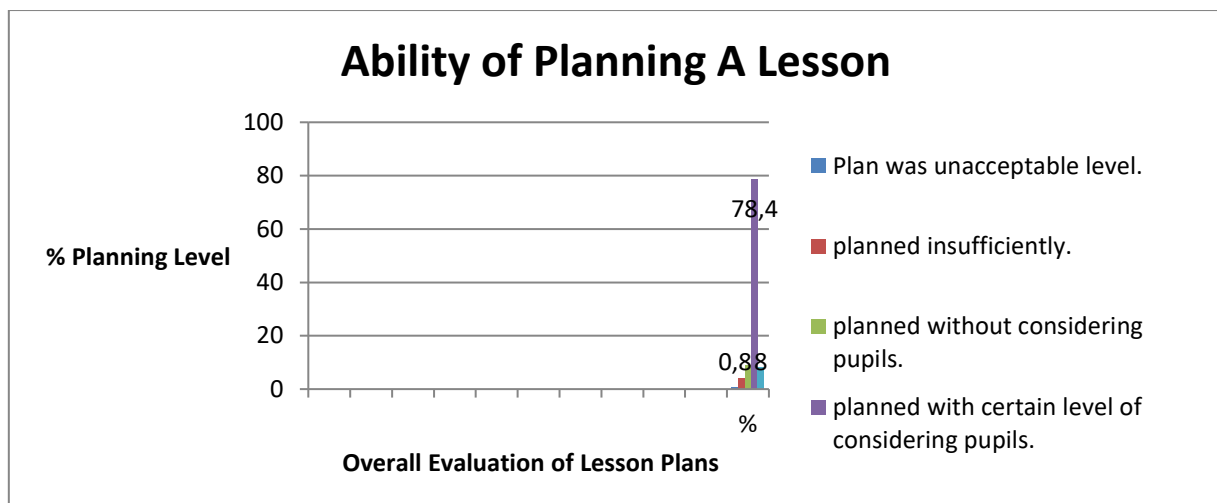
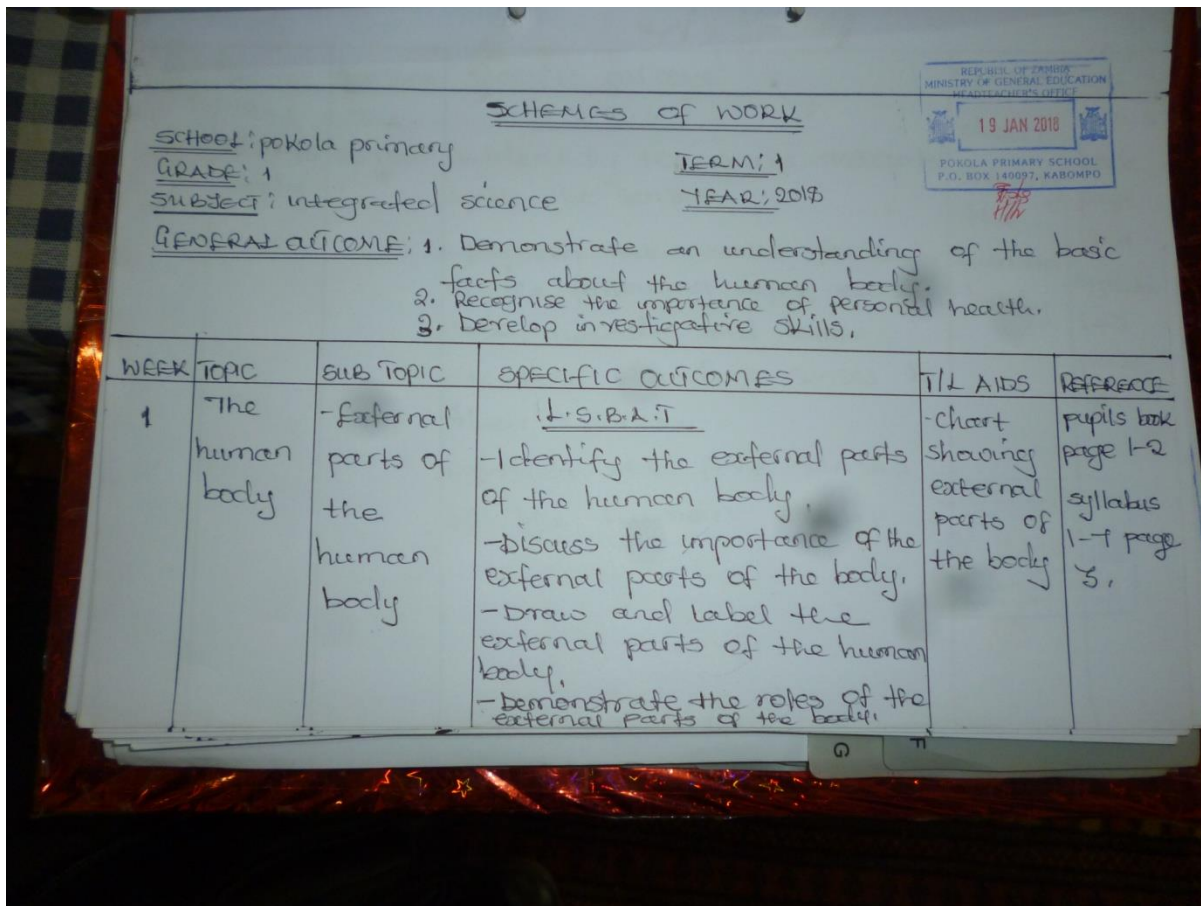


Figure 4.1.3.5 Overall Evaluations



G2 TERM 1 MATHS SCHEMES OF WORK 2018							
TOPIC	SPECIFIC OUTCOMES	CONTENT			TIL AIDS	REF	REMARKS
		Knowledge	Skills	values			
SETS	- describe sets in relation to real life situations	- describe sets in relation to real life situations	- Communication through use of appropriate set symbols	- Team work through cooperative learning	pls bk Tr. g charts	Pg 1-2	Lessons taught
State	- State membership of a set using symbol \in and \notin	- Set notation	- Analysis of elements of a set.	Awareness of set notation symbols and their use.	"	Pg 3-	Lessons taught
NUMBERS (NOTATION)	- count, read and write numbers up to 1000 - count in tens and hundreds up to 1000	- counting numbers up to 1000 - Reading and writing numbers up to 1000	- communication through writing - observation of number patterns	- ordering numbers in tens. - awareness of place values in numbers	pls Charts Tr.		
	- identify place values of digits in given numbers	- counting in tens and hundreds	- Application to real life	- team work through			

MATHEMATICS SCHEMES OF WORK FOR GRADE 7 (2018)						
TOPIC	SPECIFIC OUTCOMES	KNOWLEDGE	SKILLS	VALUES	REFERENCE	
FRACTIONS (Addition and Subtraction)	- Solve problems involving addition and subtraction of fractions	• Addition and Subtraction of fractions.	• Application of fractions to practical problems.	• Awareness of the operations as they relate to fractions.	Matts (7) syllabus page 35, Z.PEC (MK) Purple book Page #5.	
FRACTIONS (Multiplication)	- Solve problems involving Multiplication of fractions, e.g. * by whole numbers and vice-versa	• Multiplication of fractions	• Application of fractions to practical problems.	• Awareness of the operations as they relate to fractions.	Matts (7) syllabus Z.PEC (MK) page 36	

MATHEMATICS SCHEMES OF WORK

WEEK	TOPIC	SPECIFIC OUTCOMES: L-SBAT	KNOWLEDGE	SKILLS	VALUES	REF
	NUMBERS AND NOTATION	<ul style="list-style-type: none"> Count, read and write numbers from 1-100 Order numbers in terms of magnitude Count in tens (10) up to ten tens. 	<ul style="list-style-type: none"> Counting numbers from 1 to 100 (use concrete objects and math songs/games/rhymes) Reading and writing numbers Stating that one number is more than the other or one less than the other Counting numbers in tens up to 100. 	<ul style="list-style-type: none"> Identification Communication Counting Reading Writing Comparison 	<ul style="list-style-type: none"> Awareness Teamwork Reasoning Application 	Grade one mathematics new curriculum syllabus
	SETS	<ul style="list-style-type: none"> Sort objects according to size, colour and shape Match sets into one to one correspondence Place sets in order according to their cardinal numbers Associate the number of elements in a set with numerals 0 to 10 	<ul style="list-style-type: none"> Sorting objects according to size, colour and shape Matching sets of objects into one to one correspondence Ordering sets according to their cardinal numbers Associating numbers of elements in a set with numerals 	<ul style="list-style-type: none"> Classification Identification Communication Comparison 	<ul style="list-style-type: none"> Teamwork Reasoning Appreciation Interpretation Application 	for grade one

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Date: _____
Page No.: _____

Figure 4.1.3.6 Samples of Schemes of Work

WK Beg: 29-01-2018 WK Ending: 02-02-18

Grade 2 maths weekly forecast WK 2 Term 1 2018

Date	Content	Objectives	T/L cards	Ref
29-01-2018	Grouping objects into sets.	PSBAT - group objects into sets by colour and shape.	pls bk objects	Pg1
30-01-2018	"	PSBAT - group objects into sets by mass and use	pls bk objects	Pg1
31-01-2018	members of a set	PSBAT - count and state the number of members of each set.	pls bk chart	Pg2
01-02-18	"	"	"	"
02-02-18	members of a set.	PSBAT - state membership of a set using symbol \in , \notin and \bigcirc correctly.	pls bk objects	Pg3

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ALINIKI PRIMARY SCHOOL
P.O. BOX 2, MANYINGA.

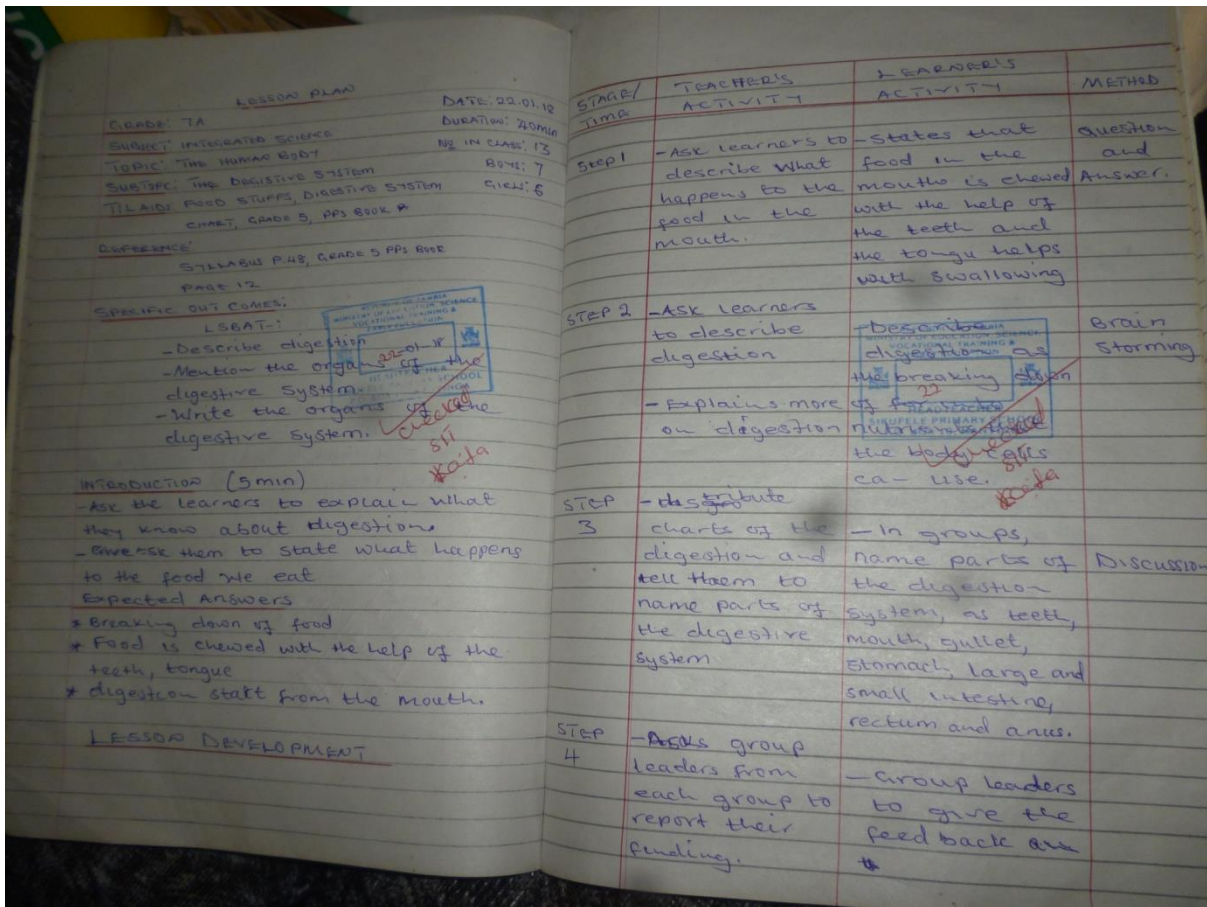
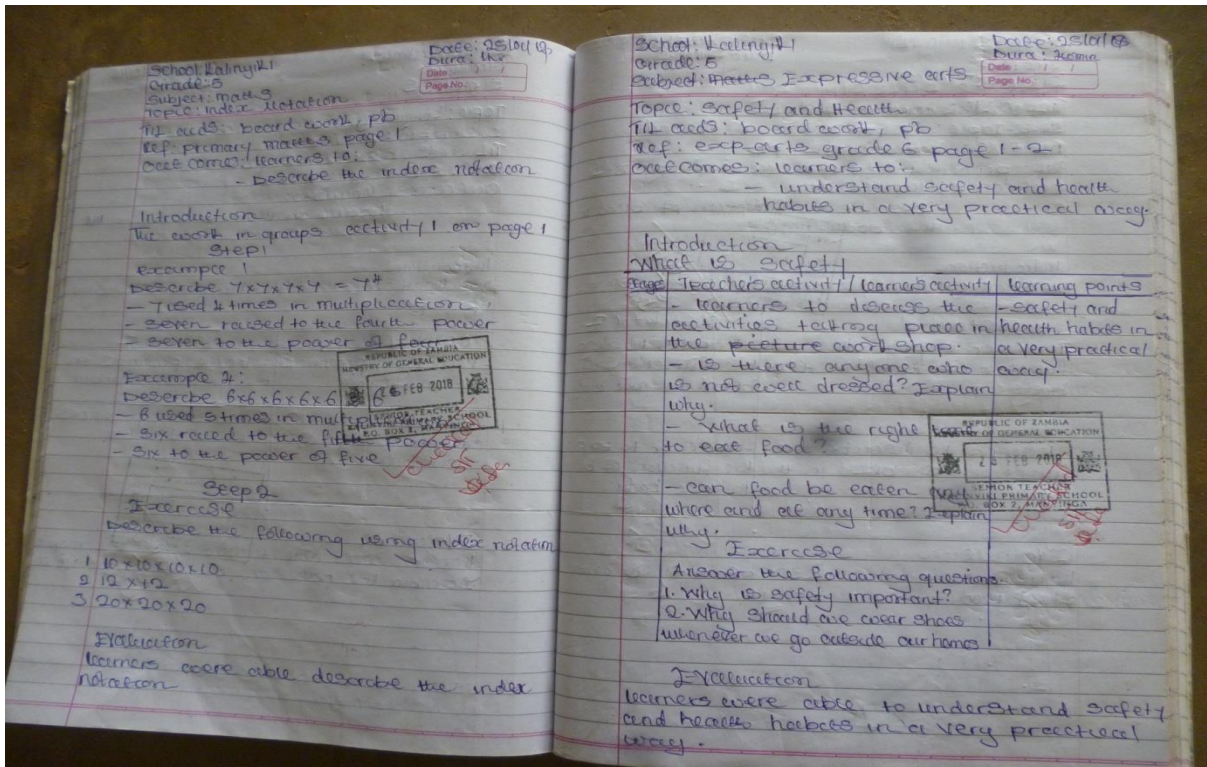
WEEKLY FORECAST FOR MATHEMATICS

TERM: 2018
TERM: ONE
WEEK ENDING:

WEEK	DAY	TOPIC / CONTEXT	LEARNING OBJECTIVES : L.S.B.A.T	REF	T/L AIDS	REMARKS
	MONDAY	NUMBERS AND NOTATIONS Counting from 1-10	<ul style="list-style-type: none"> Count numbers from 1-10 Read numbers from 1-10 Write number 1 	MK Primary Mathematics	Counters (Stones and sticks)	
	TUESDAY		<ul style="list-style-type: none"> Count from 1-20 Read numbers from 1-20 	Mu Huvale Manga 1 p1	Stones and sticks	
	WEDNESDAY		<ul style="list-style-type: none"> Write number 2 Count numbers from 1-30 Read numbers from 1-30 		Stones and sticks	
	THURSDAY		<ul style="list-style-type: none"> Write number 3 Count numbers from 1-50 Read numbers from 1-50 Write numbers 5, 6, 7 Count numbers 		Stones and sticks	

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Machelwa
SIF

Figure 4.1.3.7 Samples of Weekly forecasts



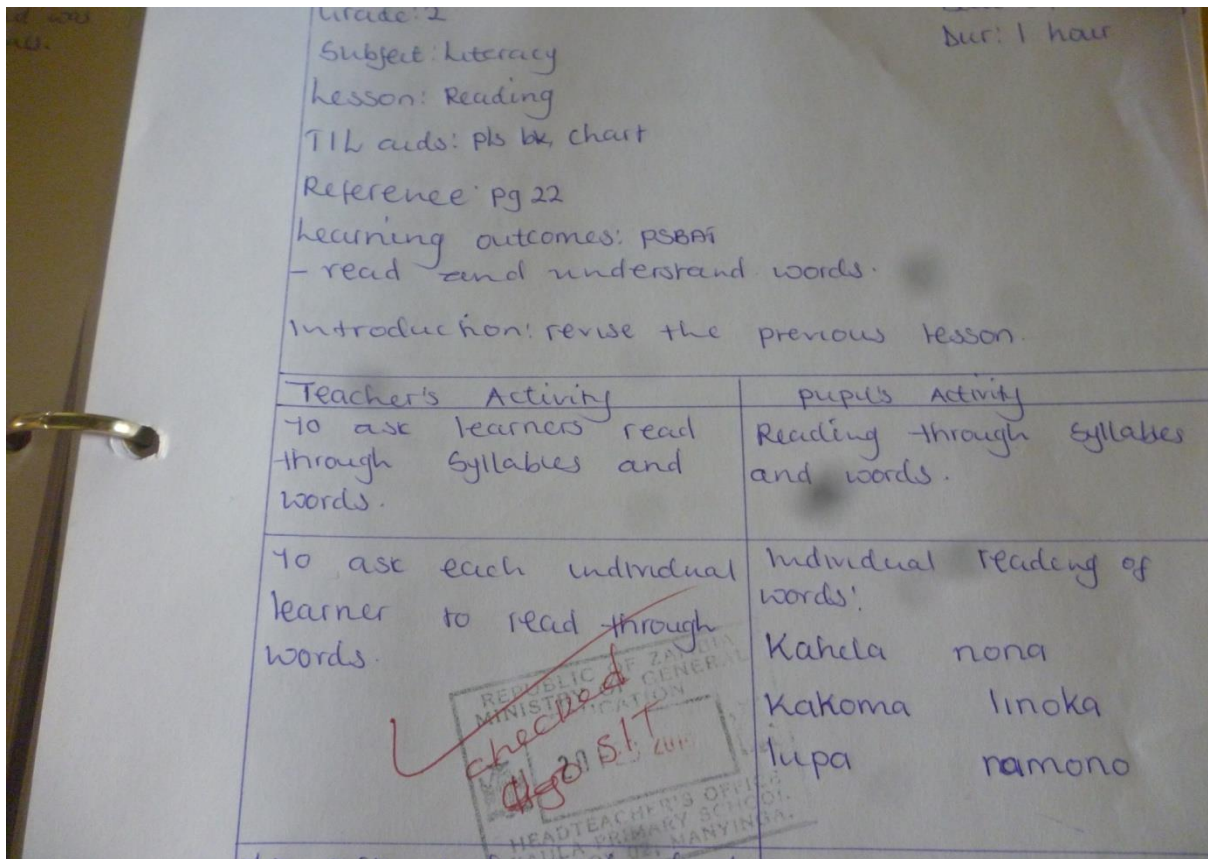
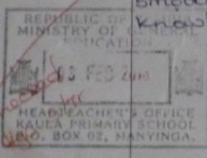


Figure 4.1.3.8 Samples of Lesson Plans

NAME OF JOB HOLDER: GILLIAN MUMBA WORK PLAN JAN-DEC 2018

JOB TITLE TEACHER

JOB PURPOSE: TO TEACH EFFECTIVELY IN ORDER TO IMPART RELEVANT AND KNOWLEDGE AND LIFE SKILLS.

KEY RESULT AREA	PRINCIPAL ACCOUNTABILITY	SCHEDULE OF ACTIVITY	TARGETS
PLANNING 	Plan appropriately teaching and learning aids activities, to ensure smooth delivery of knowledge and skills.	Schemes of work weekly forecast, lesson plans and teaching and learning activities/aids.	-1 Schemes of work for each subject every term. - prepare weekly forecast for each subject every week. - prepare 2-3 lesson plans each day. - prepare T/L aids where necessary.
TEACHING	Teach effectively in order for pupils to acquire relevant knowledge, skills and attitudes.	- follow planned work correctly and strictly. - use different <u>but</u> relevant methodologies	- Teach atleast 3-4 subjects or even all - use appropriate teaching and learning aids.

INDIVIDUAL WORK PLAN

NAME OF JOB HOLDER: [REDACTED] WORK PLAN PERIOD: ~~September - December 2017~~
 JOB TITLE: CLASS TEACHER DEPARTMENT / SECTION: EDUCATION / POKOLA PRIMARY
 JOB PURPOSE (AS W/ THE JOB DESCRIPTION)
 - TO TEACH EFFECTIVELY IN ORDER TO IMPART RELEVANT KNOWLEDGE AND SKILLS

KEY RESULT AREA	PRINCIPAL ACCOUNTABILITIES	SCHEDULE OF ACTIVITIES	TARGETS
LESSON PLANS	- Plans appropriately teaching and learning activities to ensure smooth delivery of knowledge and skills.	- plan - write schemes of work - write weekly forecast - write lesson plans	4 per term 33 per term 400 per term
TEACHING	- Teaches effectively in order for pupils to acquire relevant knowledge skills and attitudes.	- teaching - remedial	400 lessons per term 9 terms per year
ASSESSMENT	- Assesses regularly the performance of the pupils in order to determine and supply appropriate intervention	- Assessment - home work - end of term test.	3 times per term 40 times per term once per year

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 29 JAN 2018
 POKOLA PRIMARY SCHOOL
 P.O. BOX 14009
 LUSAKA, ZAMBIA
 [Signature]

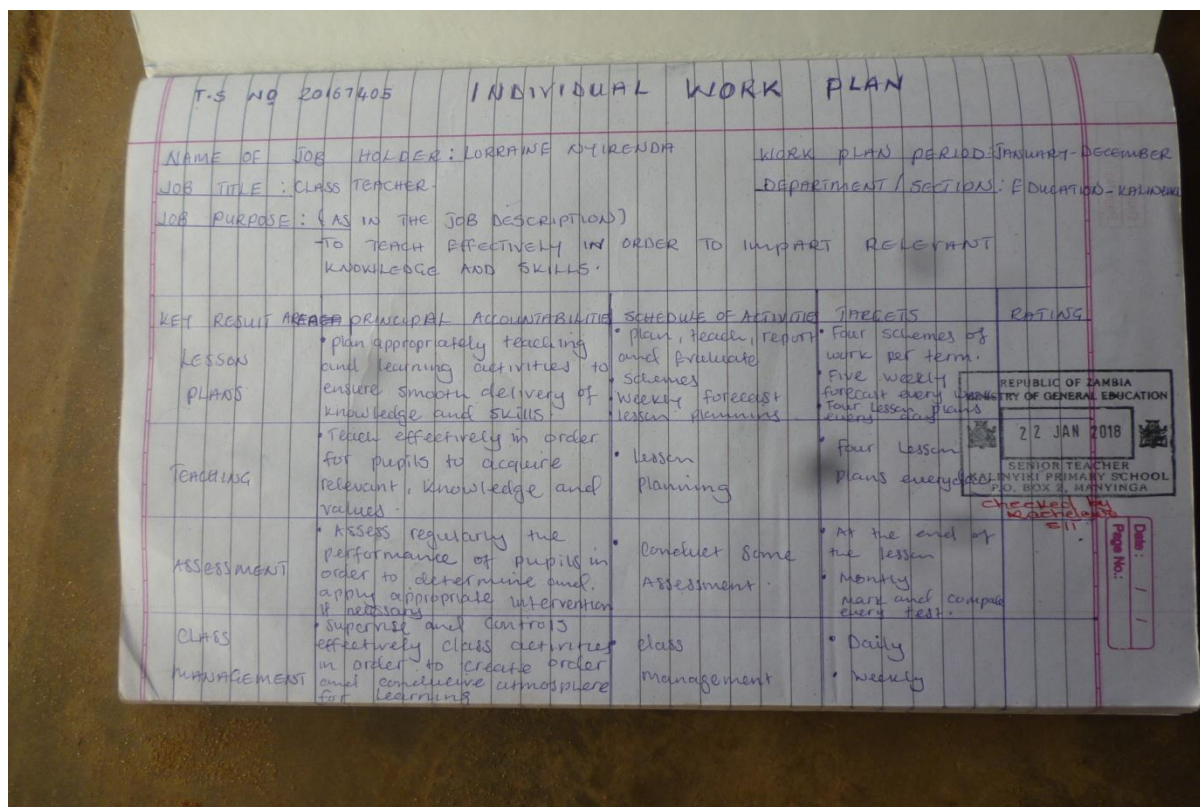


Figure 4.1.3.9 Samples of Individual Annual Work Plans

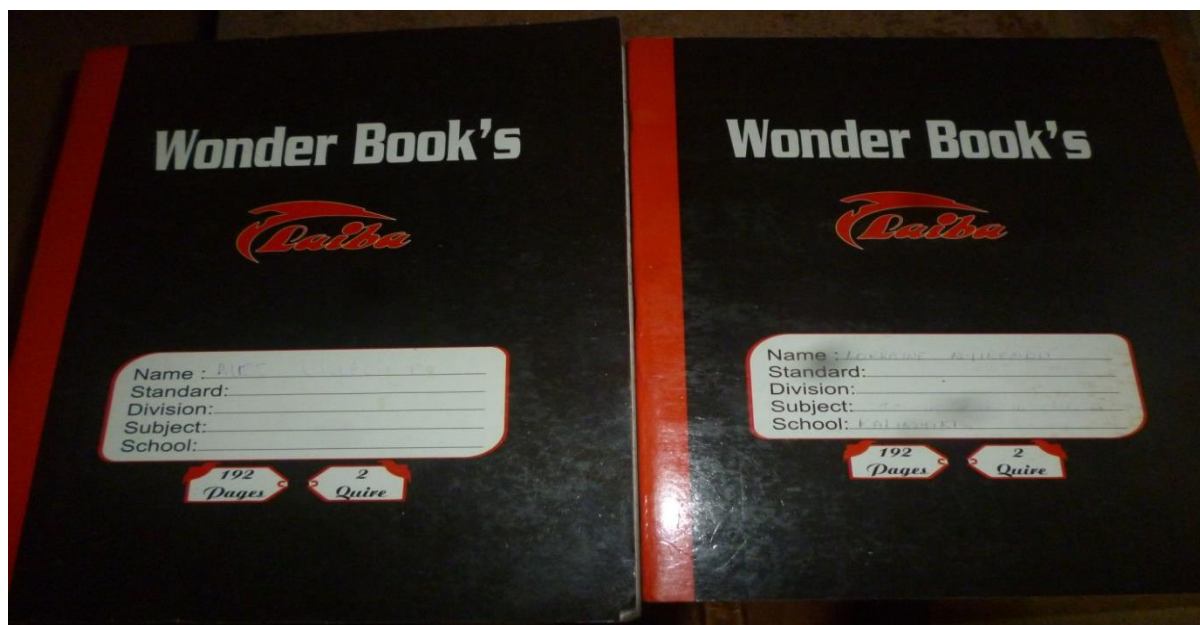


Figure 4.1.3.10 Samples of Hard Cover Note Books being used as Teaching Files

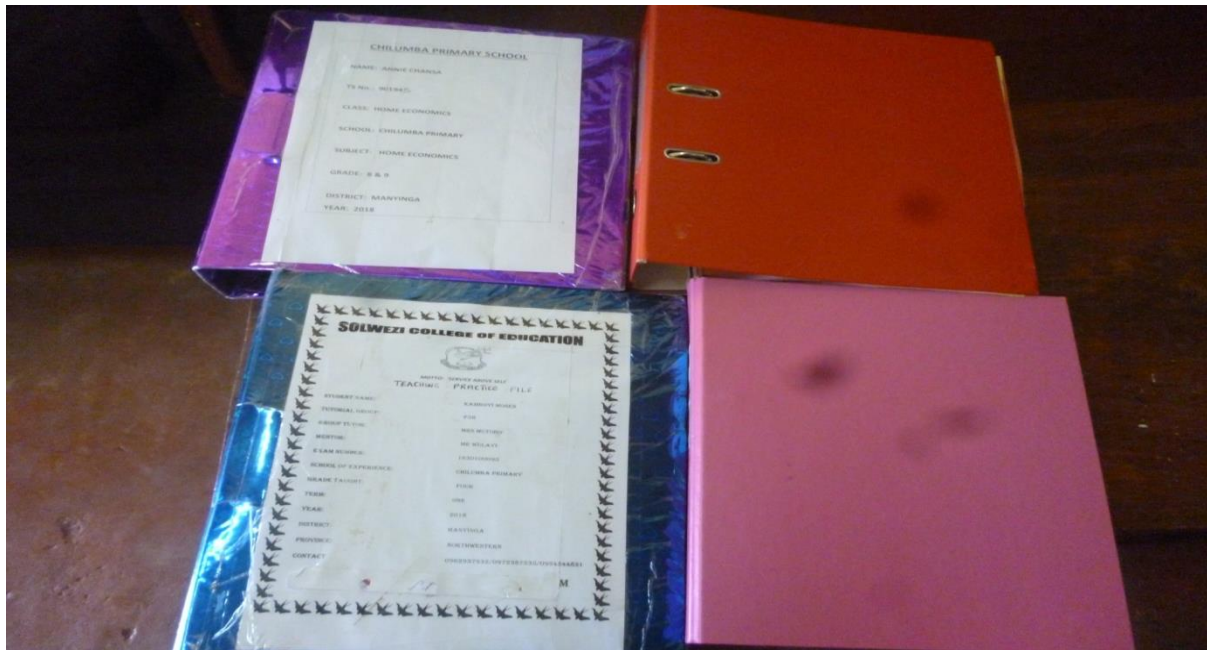


Figure 4. 1.3.11 Sample of the Teachers' Box Teaching File

4.2 Delivering – Ability of Delivering a Lesson

The teachers' competencies of implementing lessons in class were assessed through lesson observations and the results were as presented in section 4.2.1.

4.2.1 Delivering – Ability to Delivering Lesson Plan

Results from lesson observations on the ability of teachers to deliver lessons were as presented in Figures 4.2.1.1 to 4.2.1.7 below.

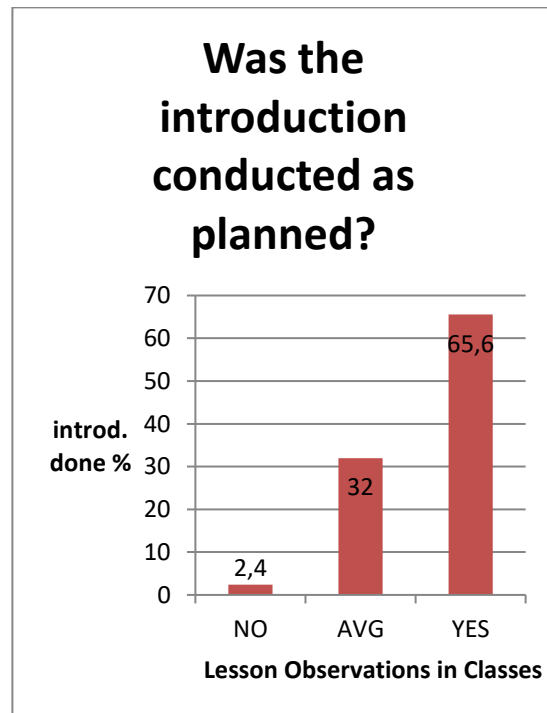
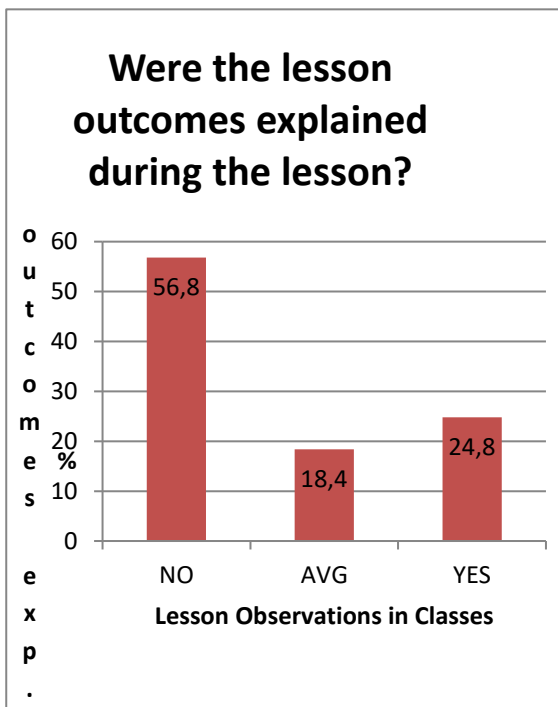


Figure 4.2.1.1 Ability to explain outcomes Figure 4.2.1.2 Ability to conduct introduction

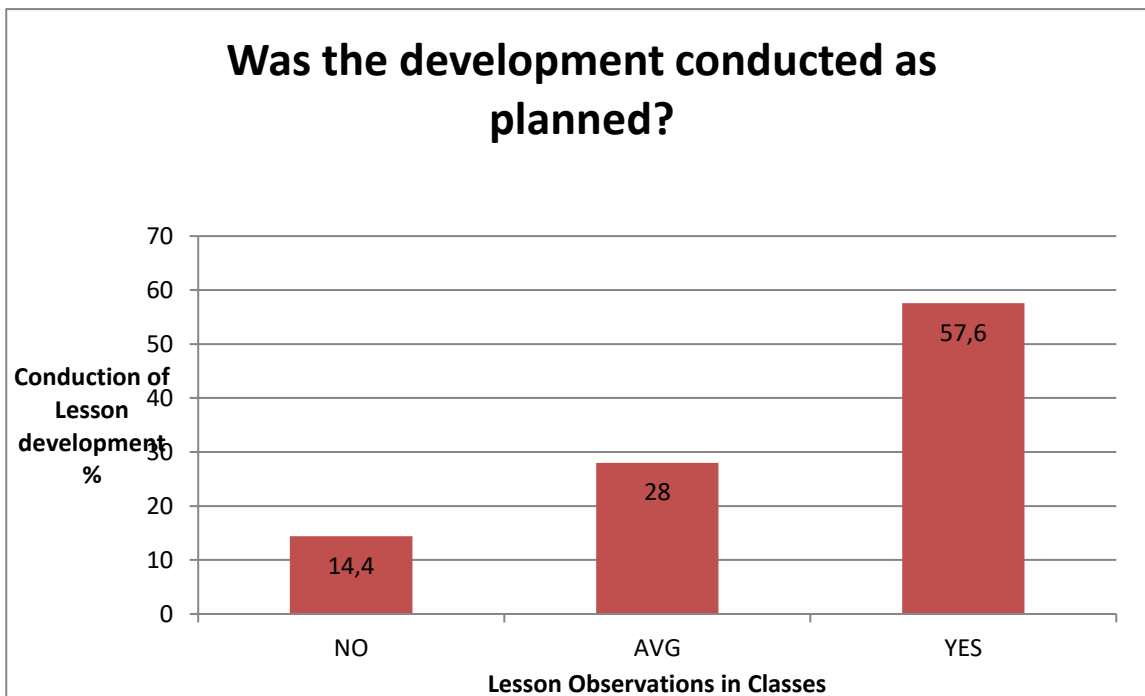


Figure 4.2.1.3 Ability to implement the planned lesson

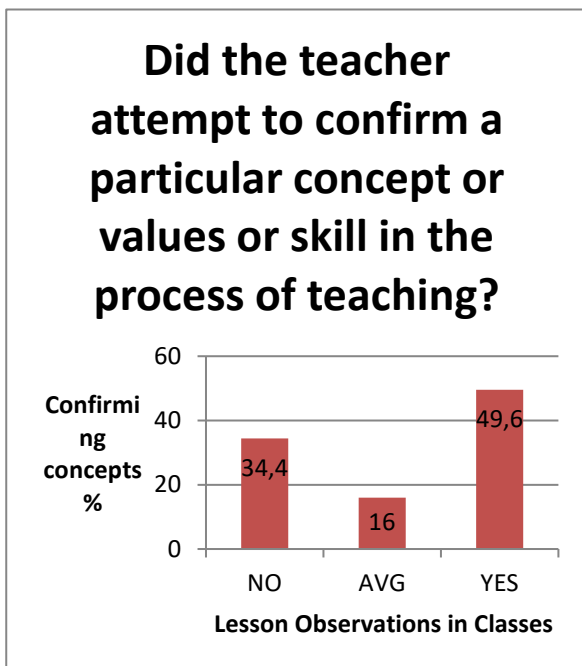


Figure 4.2.1.4 Ability to confirm concepts

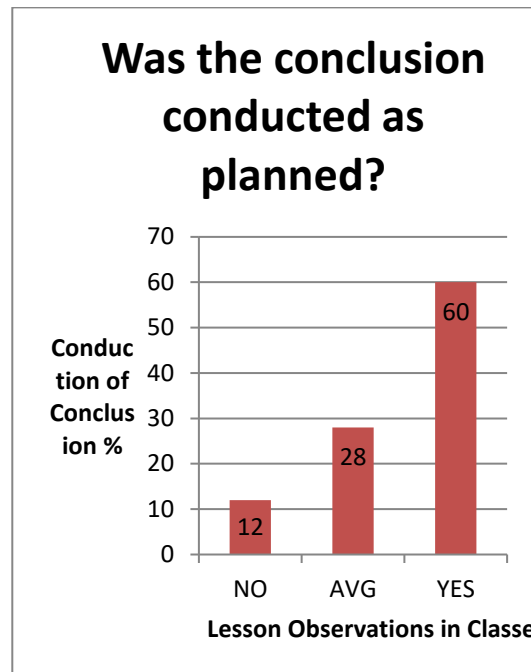


Figure 4.2.1.5 Ability to conclude lesson planned

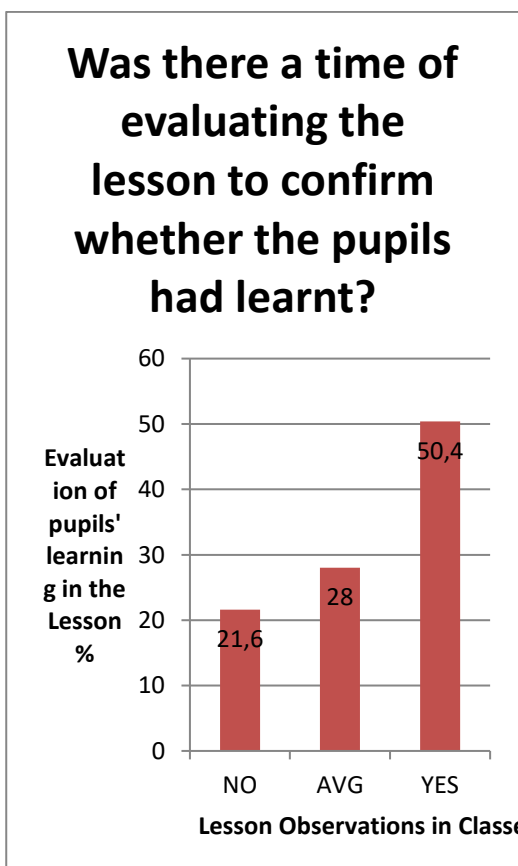


Figure 4.2.1.6 Ability to evaluate learners' learning

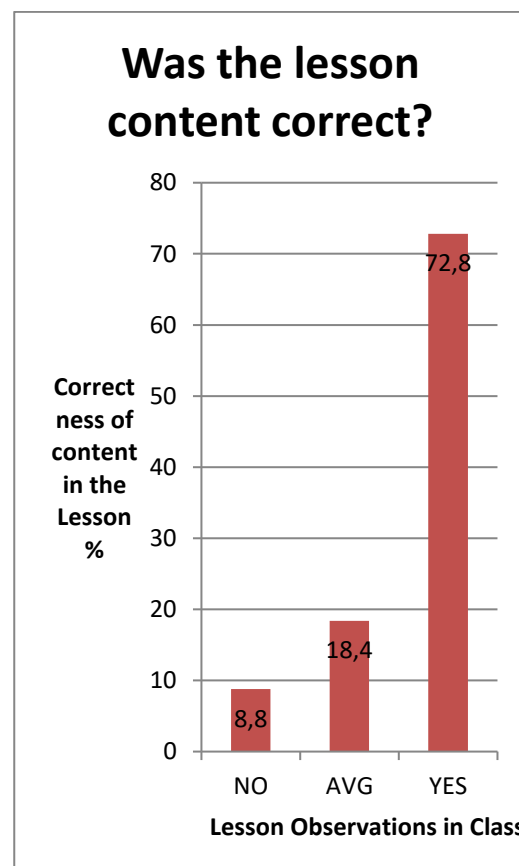


Figure 4.2.1.7 Correctness of content

4.2.2 Delivering- Ability of Enhancing Pupils Subjective Learning

Lesson observation results on the ability of the teachers to enhance pupils' subjective learning in the lesson lessons observed are presented in Figures 4.2.2.1 to 4.2.2.3 below.

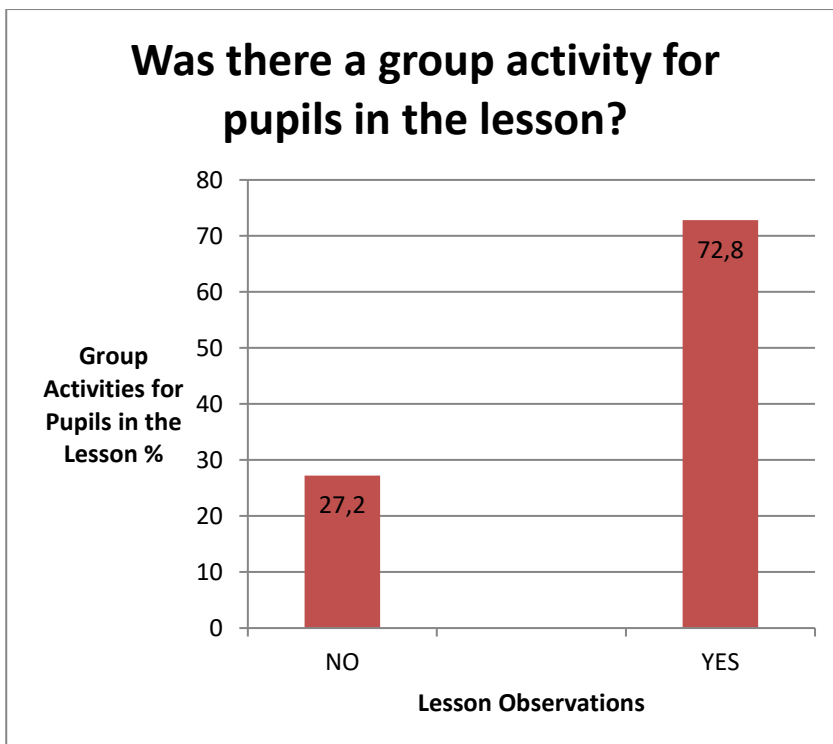


Figure 4.2.2.1 Group work for pupils in the lesson



Figure 4.2.2.2 Pupils Working in Groups

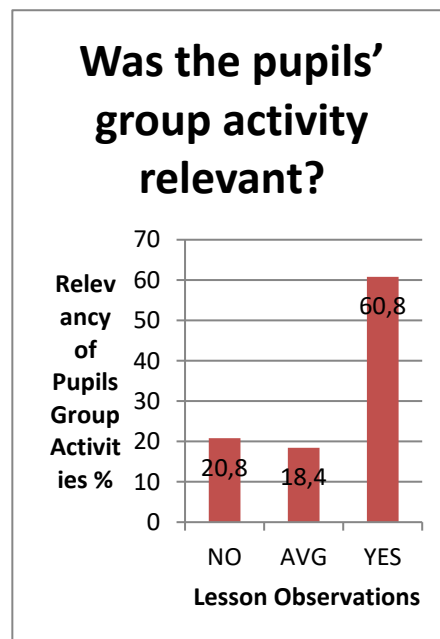
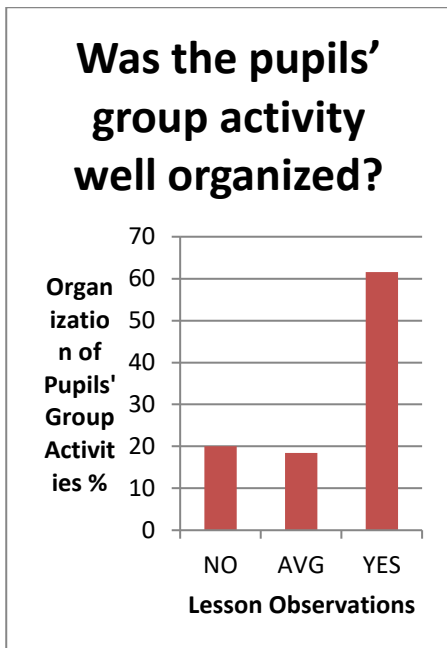


Figure 4.2.2.3 Organizing group activities

Figure 4.2.2.4 Relevancy of group activities

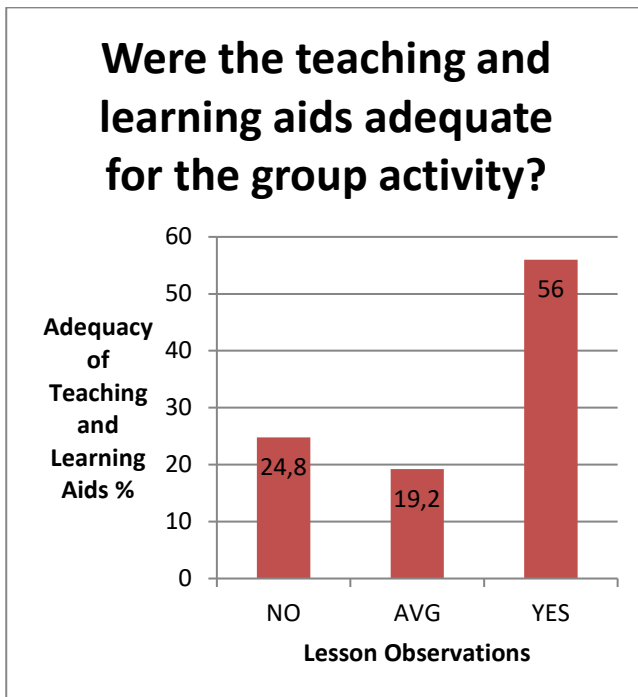


Figure 4.2.2.5 Adequacy of teaching aids for group activities

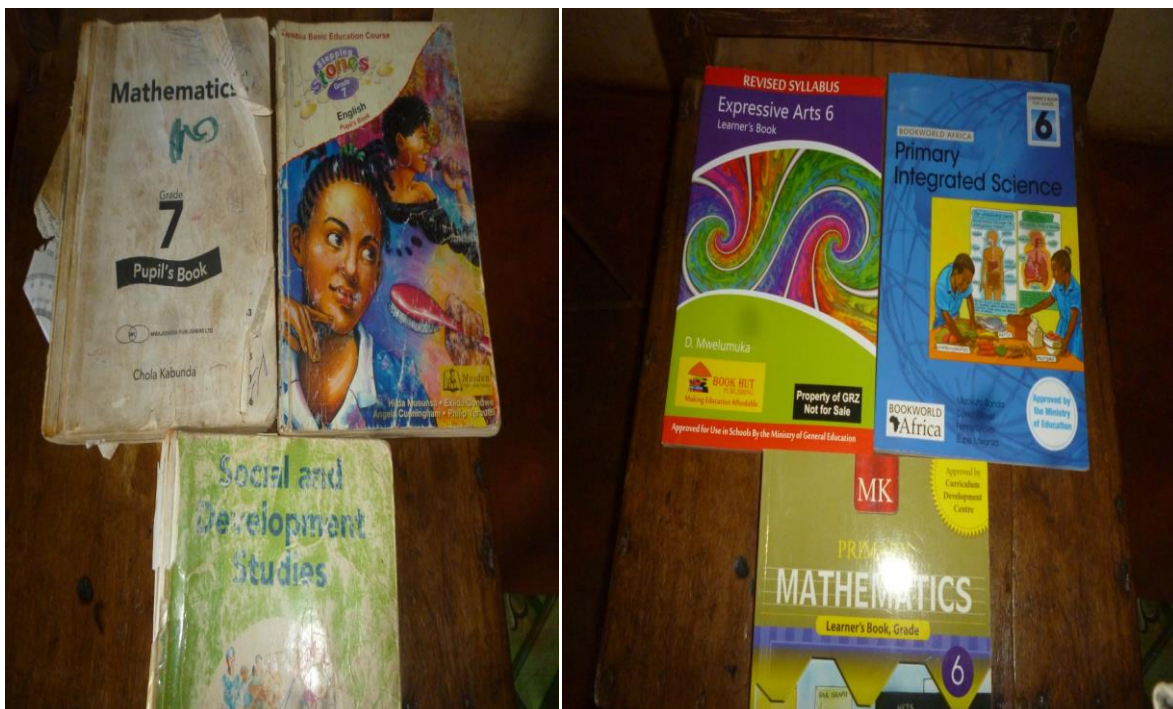


Figure 4.2.2.6 Samples of Teaching and Learning Resources

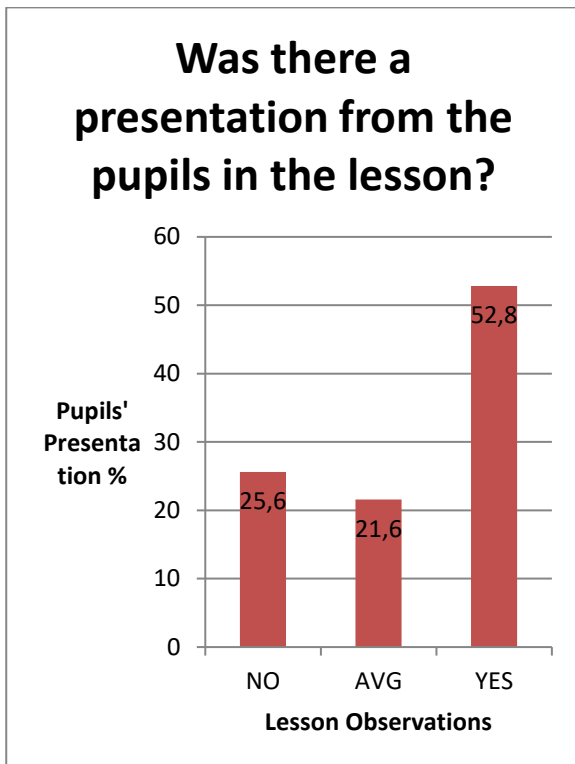


Figure 4.2.2.7 Pupils' Presentations

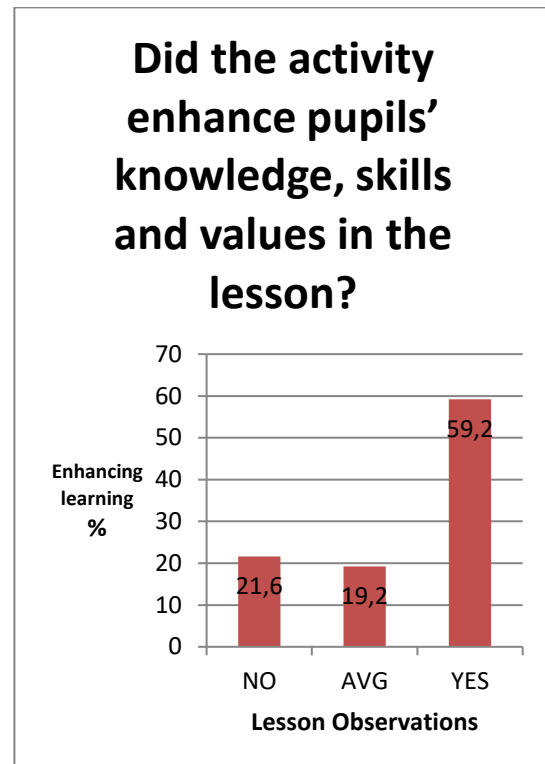


Figure 4.2.2.8 Enhancing learning

4.3 Evaluation- Ability of Evaluating the Lesson

Lesson plans analyses of the ability of teachers to evaluate the lesson are presented in Figures 4.3.1 to 4.3.4 below.

Was the teacher able to evaluate a lesson in detail?

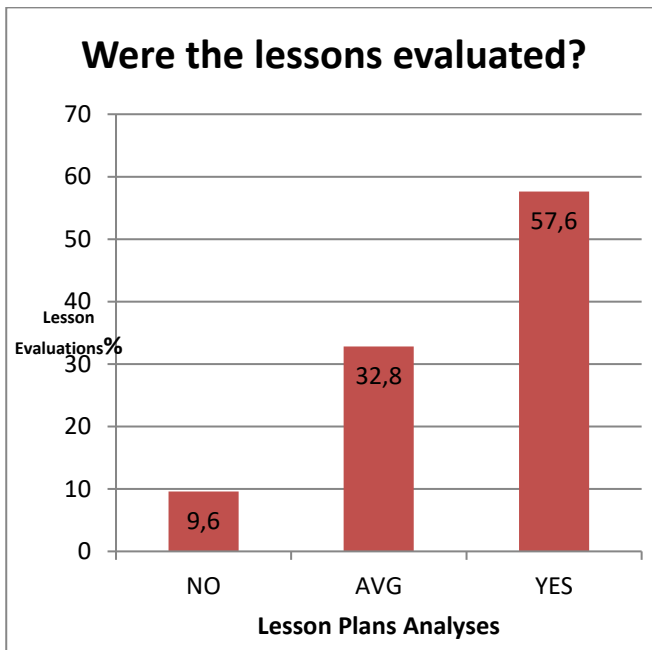


Figure 4.3.1 Ability to evaluate lessons

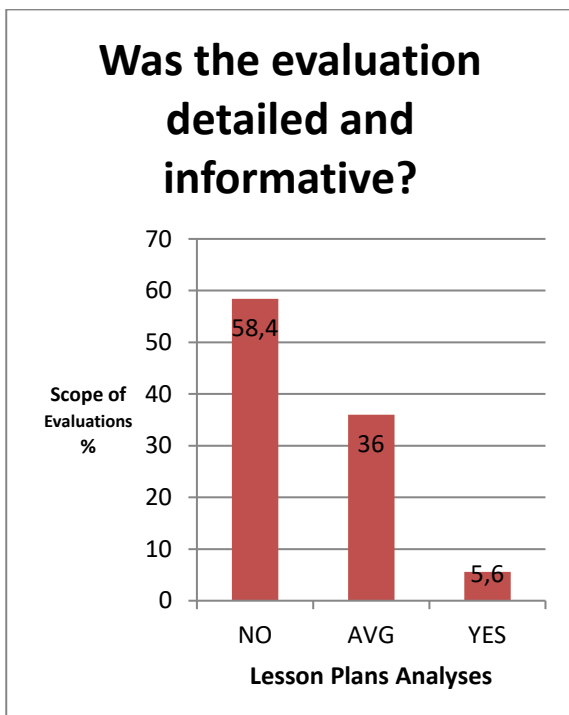


Figure 4.3.2 Scope of lesson evaluations

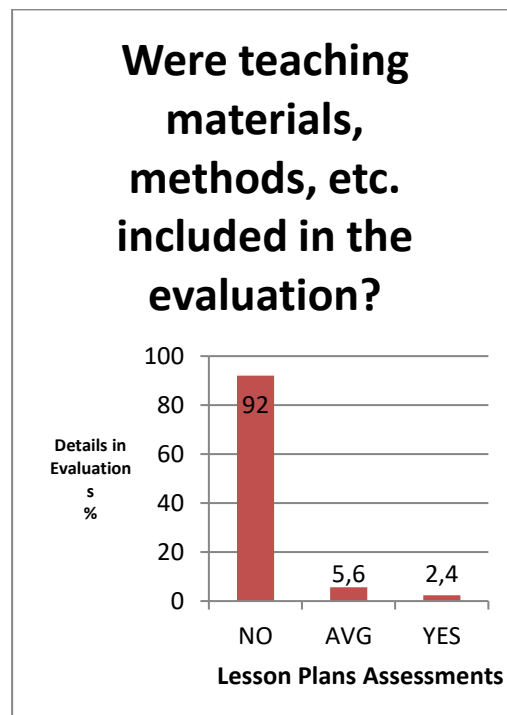
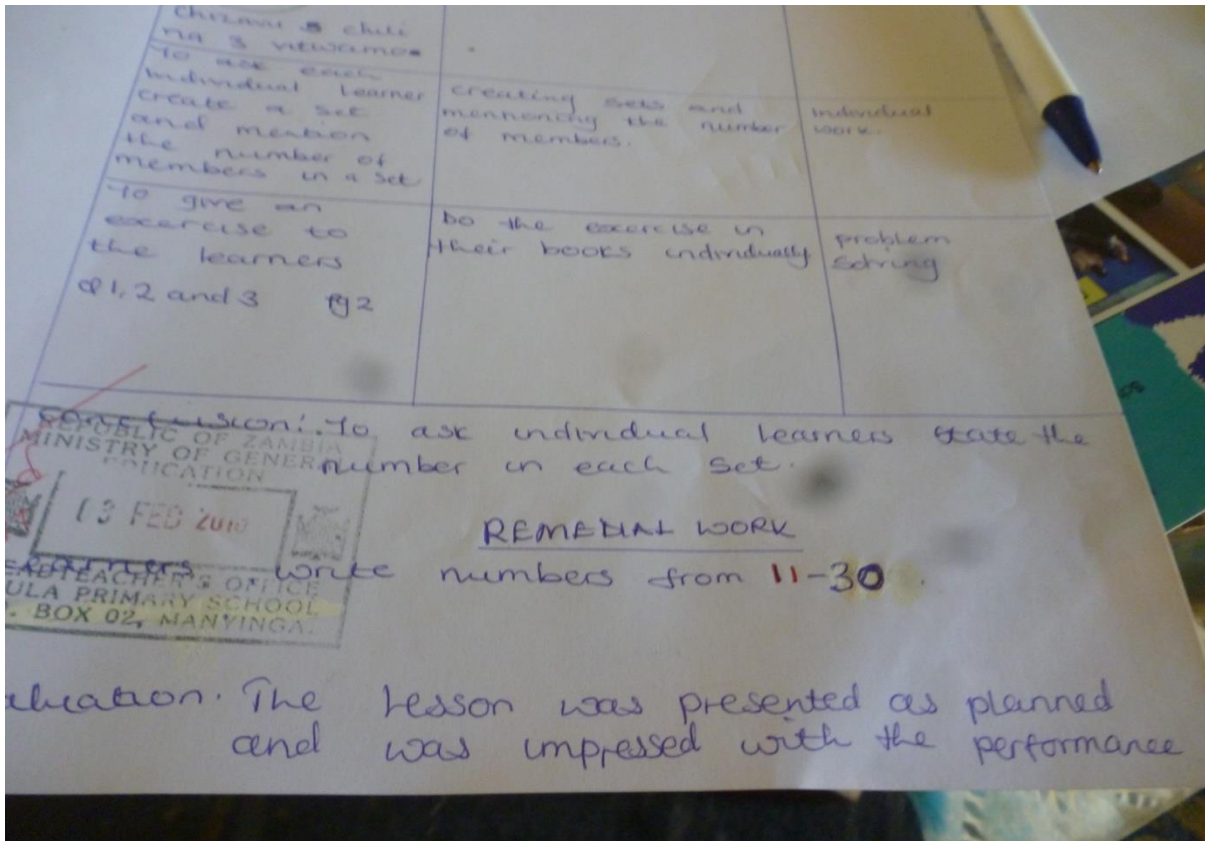
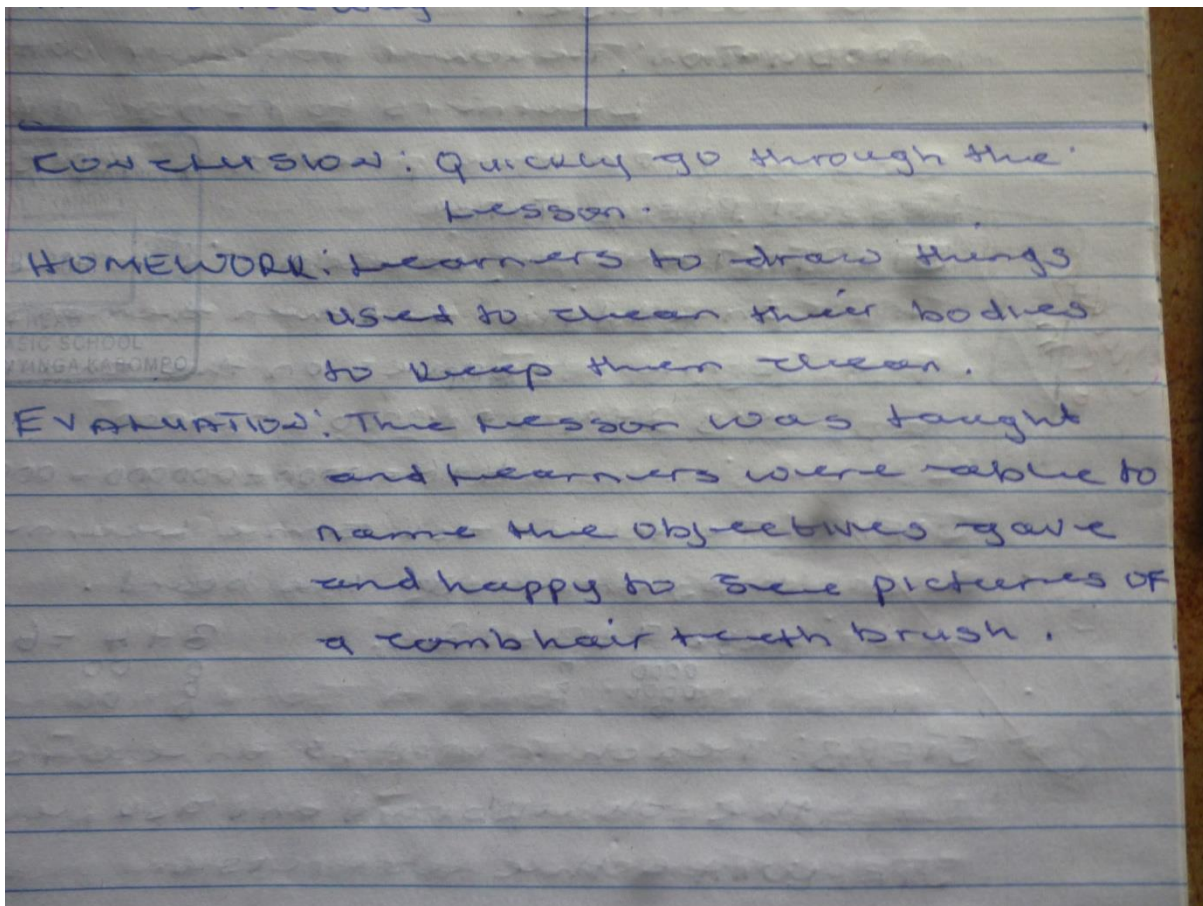


Figure 4.3.3 Aspects in evaluations





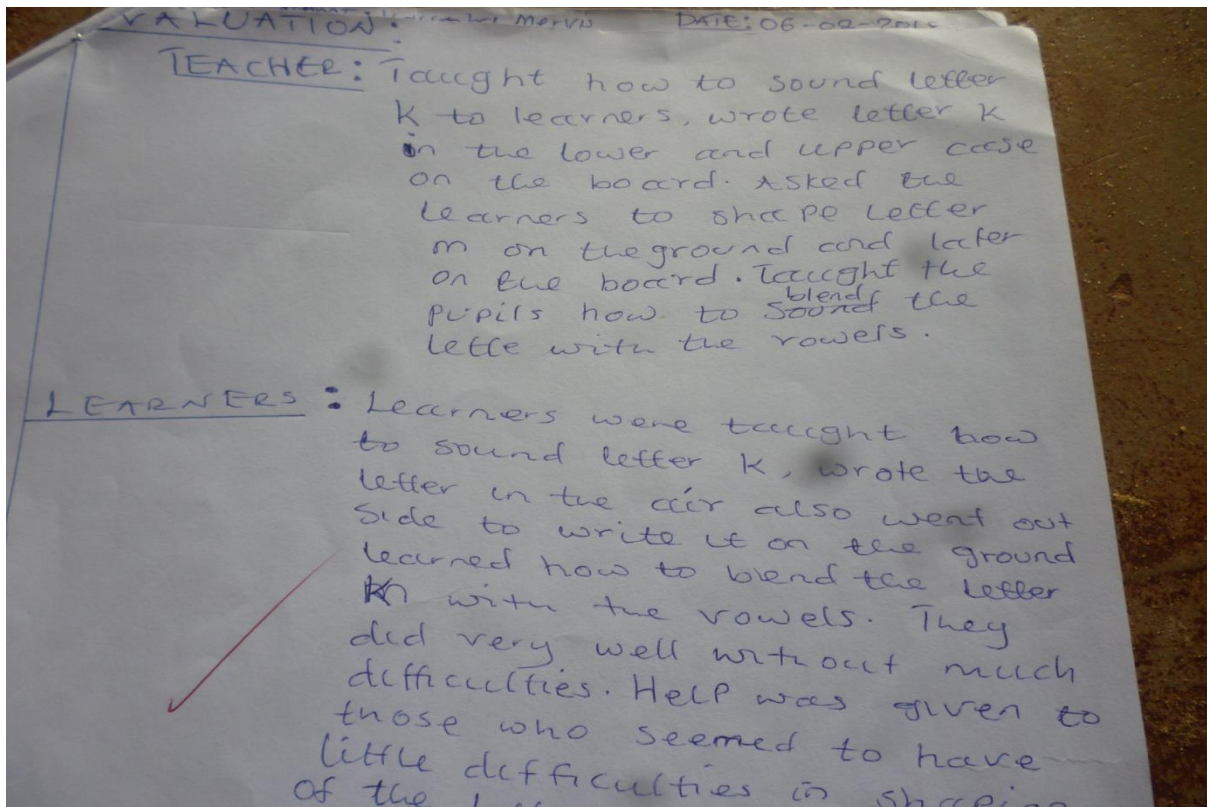


Figure 4.3.4 Samples of Lesson Evaluations

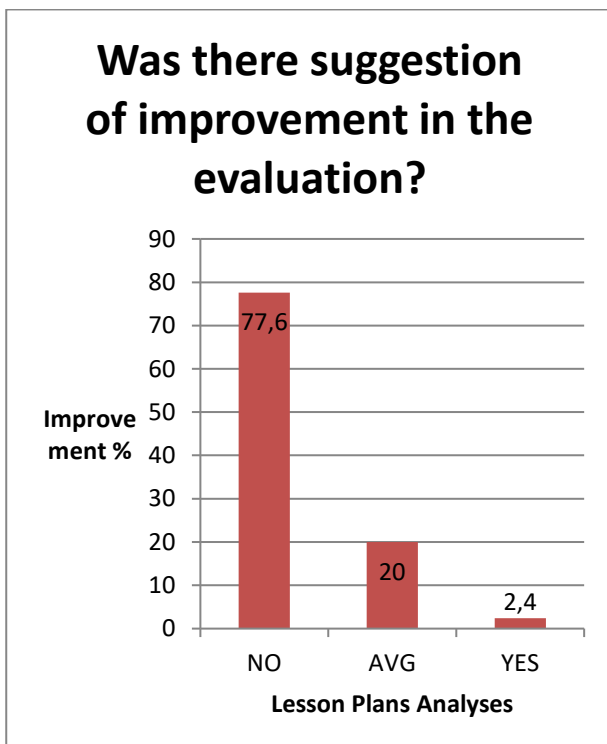


Figure 4.3.5 Suggestion on improvement in evaluations

4.1.2 Overall evaluations of lessons delivered

The overall evaluation of the teachers' lesson delivery abilities were as presented in Figure 4.3.6 below.

Were the teachers able to plan lessons which enabled pupils to learn subjectively?

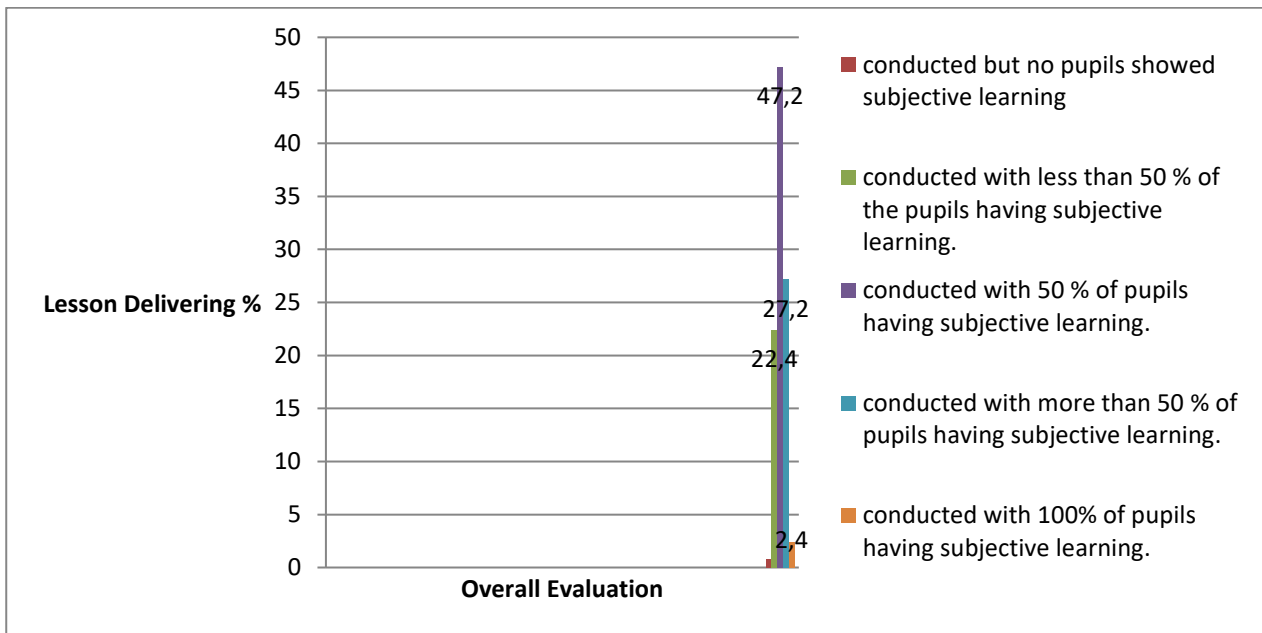
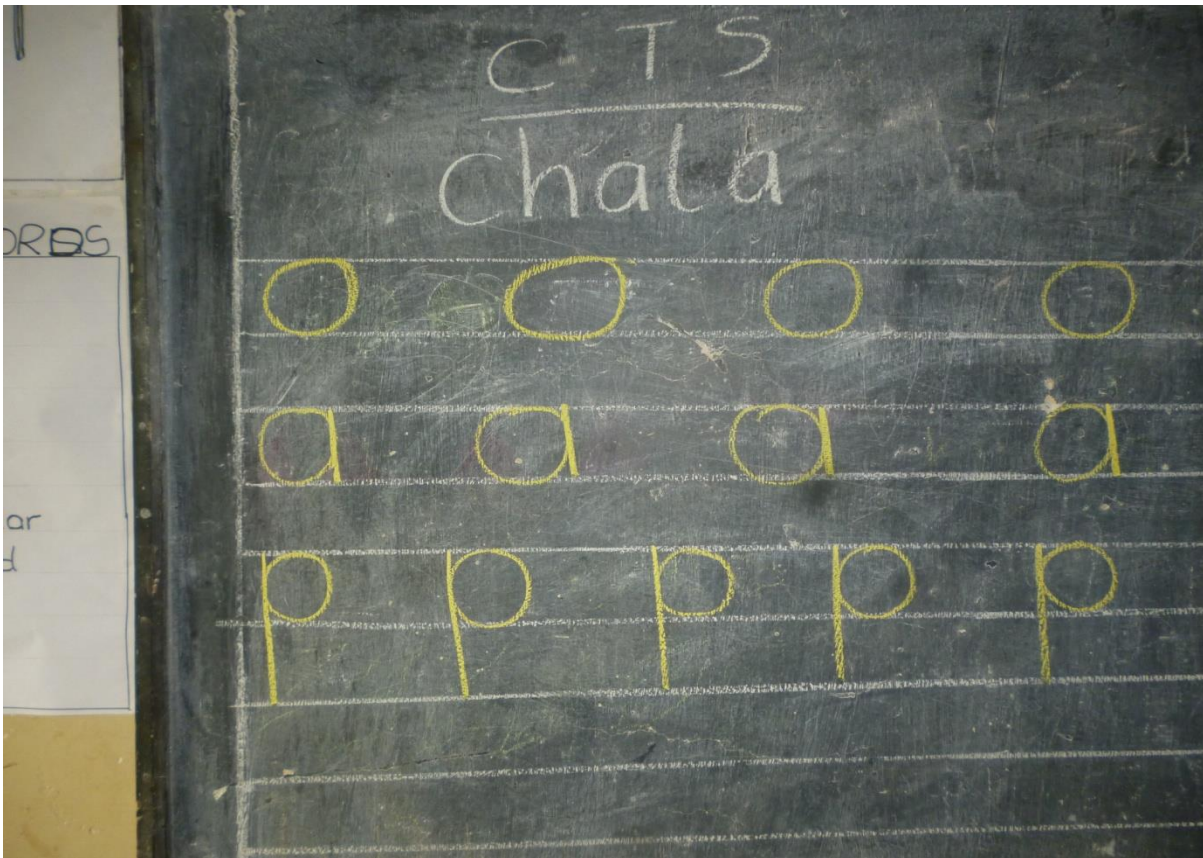


Figure 4.3.6 Overall evaluations of lessons delivered



Figure 4.3.7 Some Lessons Observed



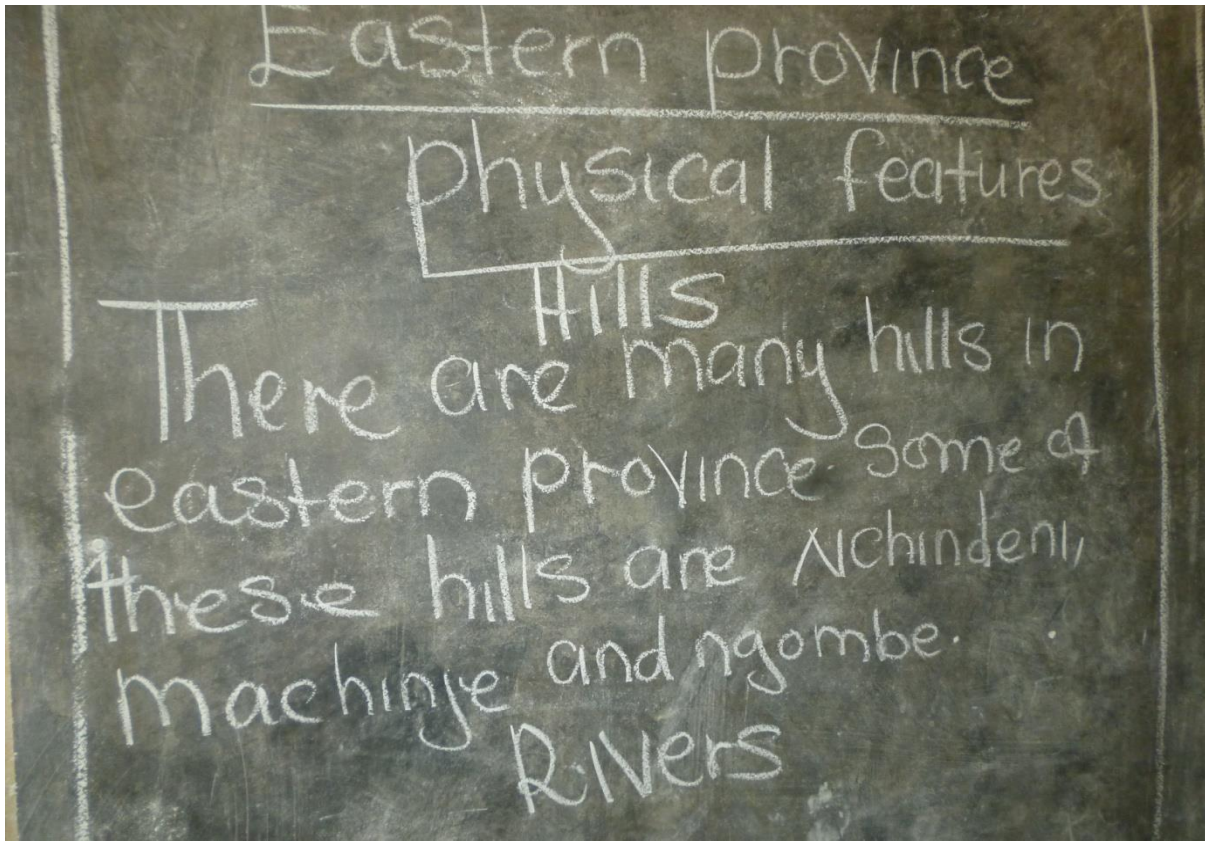


Figure 4.3.8 Samples of Teachers' Board Work

4.4 ASSESSMENT - Ability of assessing Learners

Results from document analyses on teachers' ability to assess learners' achievement are presented in Figures 4.4.1 to 4.4.6 below.

4.4.1 Assessment – Ability of setting up a test, home work or class exercise

Results from analyses of test items set by teachers are as presented in Figures 4.4.1 to 4.4.6 below.

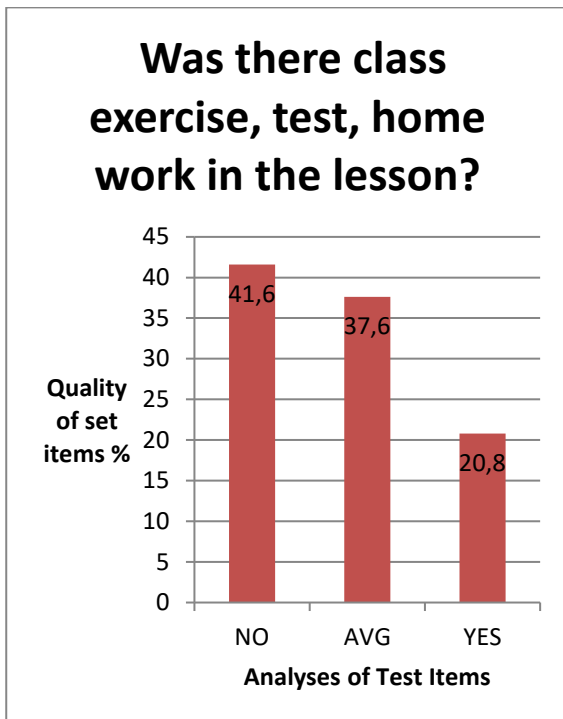


Figure 4.4.1 Ability of assessing pupils

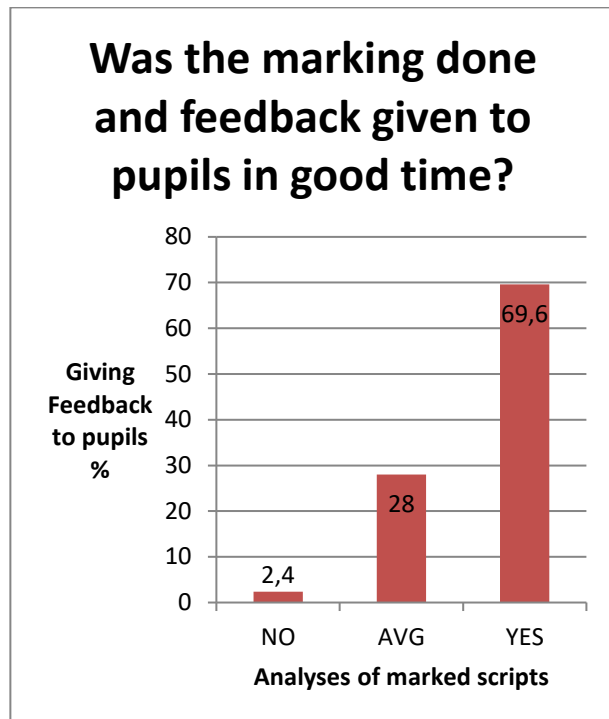


Figure 4.4.2 Ability to give feedback to pupils

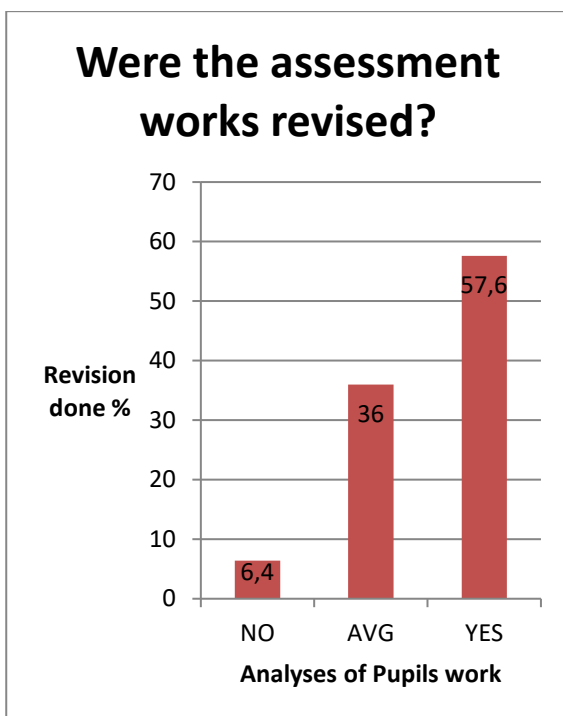


Figure 4.4.3 Ability to revise assessment work

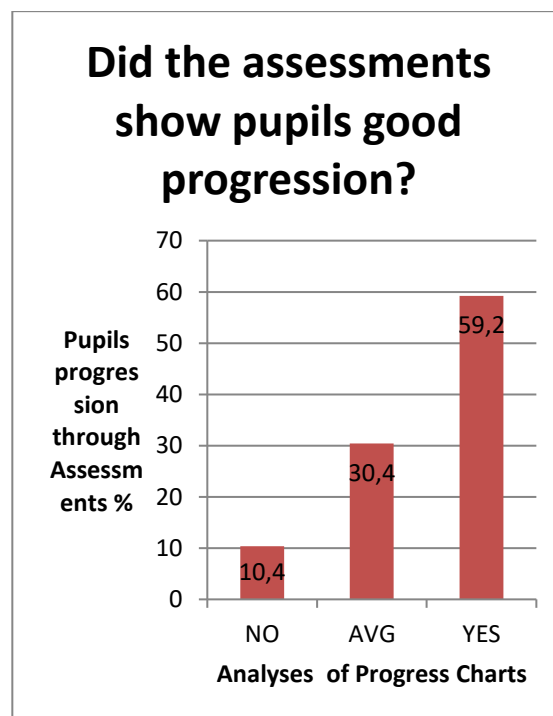
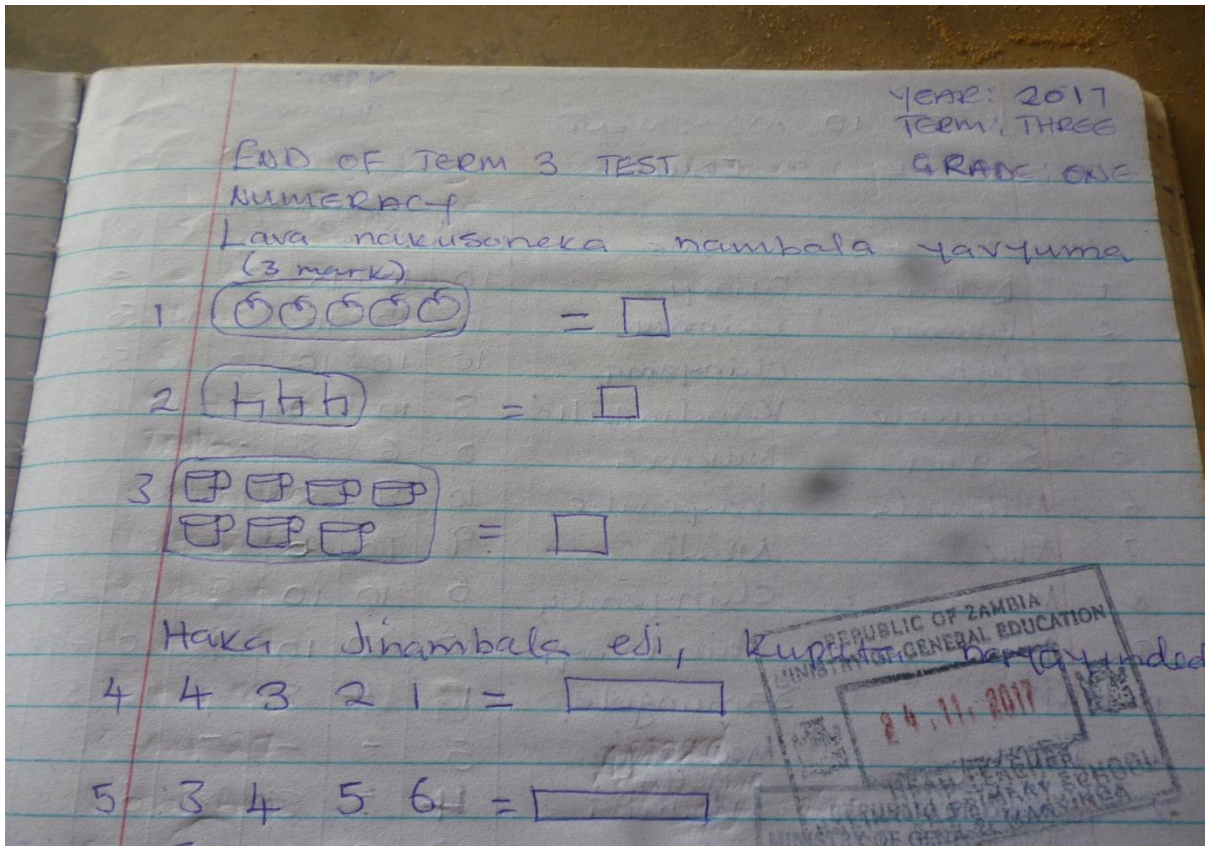


Figure 4.4.4 Pupils' progression



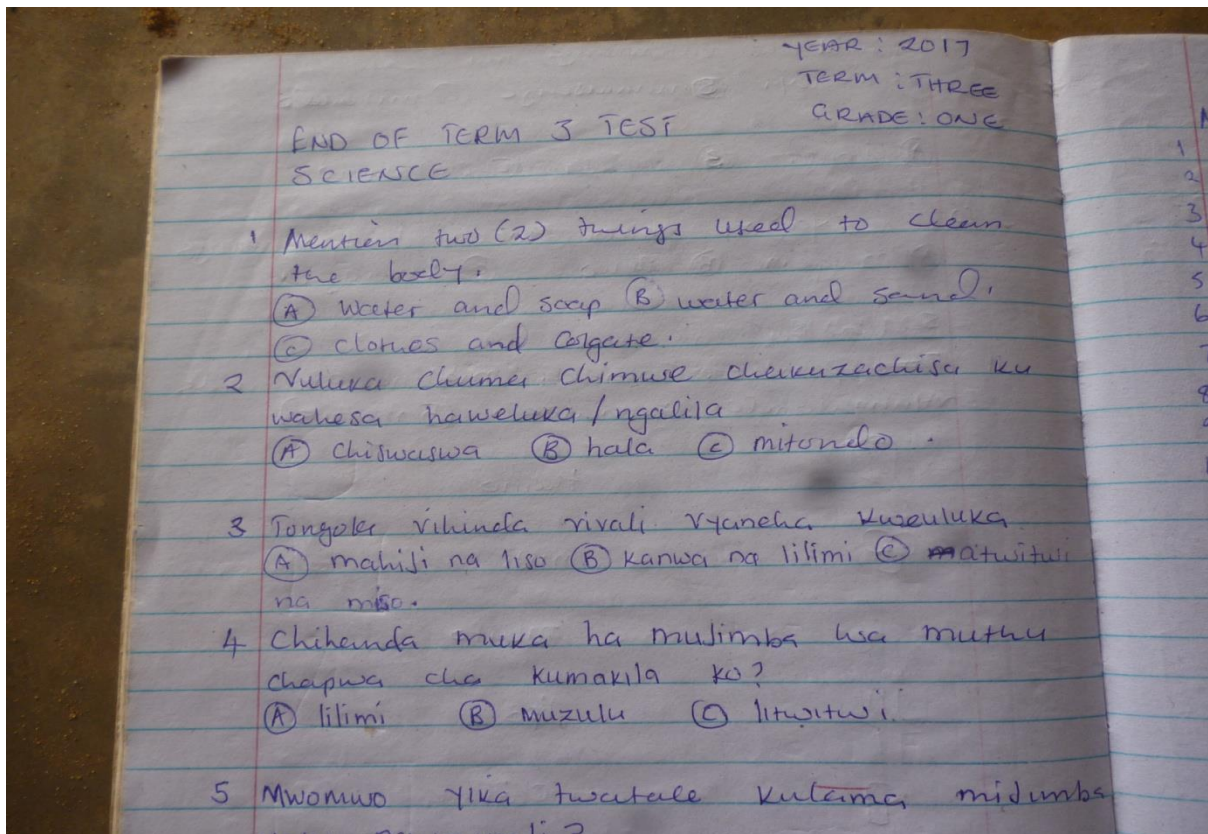


Figure 4.4.5 Samples of Assessment Items

Date: 20/02/18
Page No.:

GRADE 4 PROGRESS CHART

NAMES	S. D. S			MATHS			ENGLISH			C. T			S	INT. SCIENCE			LITERACY		
	T1	T2	T3	T1	T2	T3	T1	T2	T3	T1	T2	T3		T1	T2	T3	T1	T2	T3
1 MUSCLE KAYEMBE	85%			85%			70%							90%			85%		
2 MONDE DILEMA	90%			65%			90%							95%			80%		
3 NDUMBA JAMES							90%							95%					
4 MASEKA SIMBON	80%			85%			85%							85%			100%		
5 TOLOSI GRAIG	75%			65%			30%							90%			40%		
6 SAMULELA WADA	40%			30%										55%			40%		
7 SAMULELA SHEPHAN	85%			70%															
8 KAYOMBO JELLAH	65%			90%			90%							90%			100%		
9 PEZUKU IREEN	70%			55%			35%							75%			65%		
10 MBIMBI AGGIE	95%			65%			40%							85%			45%		
11 FUDGATAYI LOVENESS	55%			50%			30%							70%			30%		
12 CHIPAWA LADCY	85%			95%			80%							90%			100%		
13 CHIPOYA BORDFACE							25%							80%			50%		
14 CHIPOYA CHITIVA	80%			65%			40%							85%			80%		
15 CHITANGI EYMANUEL	70%			100%													90%		
16 IFUMBA JACK	60%																		
17 IFUMBA JACQUELINE	80%			25%			90%							90%			70%		
18 MUKOMA																			

Term one entrance assessment of week 5

No	Number in enclosed			20 Sat			outstanding			Desirable			minimum			Below minimum			Performance above level		
	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T
20	43	20	23	26	27	53	0	0	0	2	4	6	3	3	6	21	20	21	2	4	6
21	43	20	23	25	26	51	0	0	0	2	3	5	10	10	20	13	13	26	2	3	5
22	23	20	23	23	27	50	2	0	2	2	6	8	3	6	9	16	15	31	4	6	8
23	23	20	23	25	27	52	3	5	8	0	3	3	5	2	4	14	17	32	3	8	11
24	23	20	23	22	26	48	12	10	22	4	5	9	2	2	4	4	9	13	16	15	31
25	23	20	23	23	26	49	4	4	8	4	4	8	3	7	10	13	10	23	8	8	16
26	23	20	23	24	29	53	3	6	9	3	2	5	2	3	5	16	18	34	6	8	14
27	23	20	23	24	29	53	3	0	3	0	6	6	5	6	11	14	16	33	3	6	9

Figure 4.4.6 Samples of Pupils Progress Charts

4.4 ASSESSMENT - Ability of assessing Learners

The results on the Overall Evaluation Assessment abilities of the teachers are presented in Figure 4.4.7 below.

Was the teacher able to assess pupils' achievements?

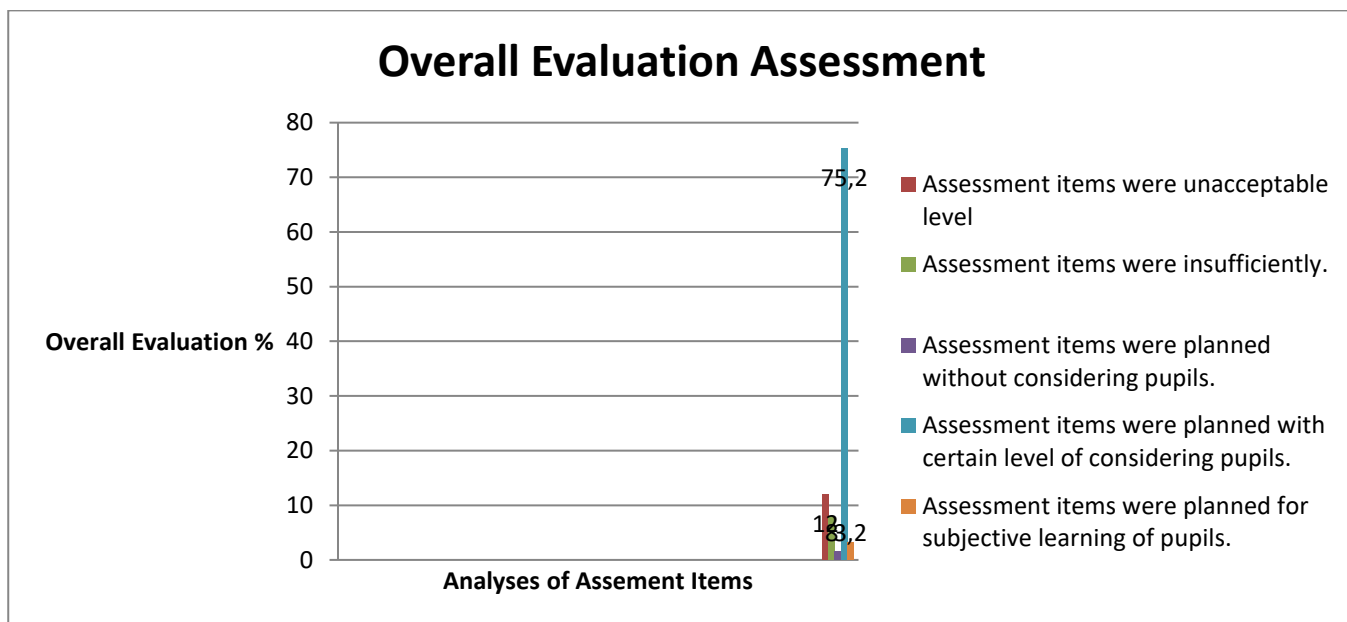


Figure 4.4.7 Overall evaluation of Assessment of learners

4.5 Interview Results on Head teachers, District Education Board Secretaries and Teachers' Perspectives

The following sections present interview results with teachers, Head teachers and the District Education Board Secretaries. These are detailed below under various headings.

4.5.1 Interview Results on Head teachers' Perspectives

The Head teachers' perspectives on teachers' competencies were mostly obtained through interviews. The results were as presented under various headings detailed below.

How many teachers have Primary Teachers' Diploma at this school?

Most of the schools under this study had sufficient number of teachers from SOCE. About 213 teachers were diploma holders.

Do you think that these teachers have the rightful competencies for implementing the revised curriculum in the schools in the district?

All the head teachers (100 %) interviewed claimed the teachers from SOCE were very good and possessed the rightful competencies for implementing the revised curriculum in the schools. The head teachers attributed that to the good training teachers underwent while at the college.

How would you rate the teachers' competencies in the list below? (Please use either: very good, good or poor)

The head teachers rating of the teachers competencies were as shown in Figure 4.42.

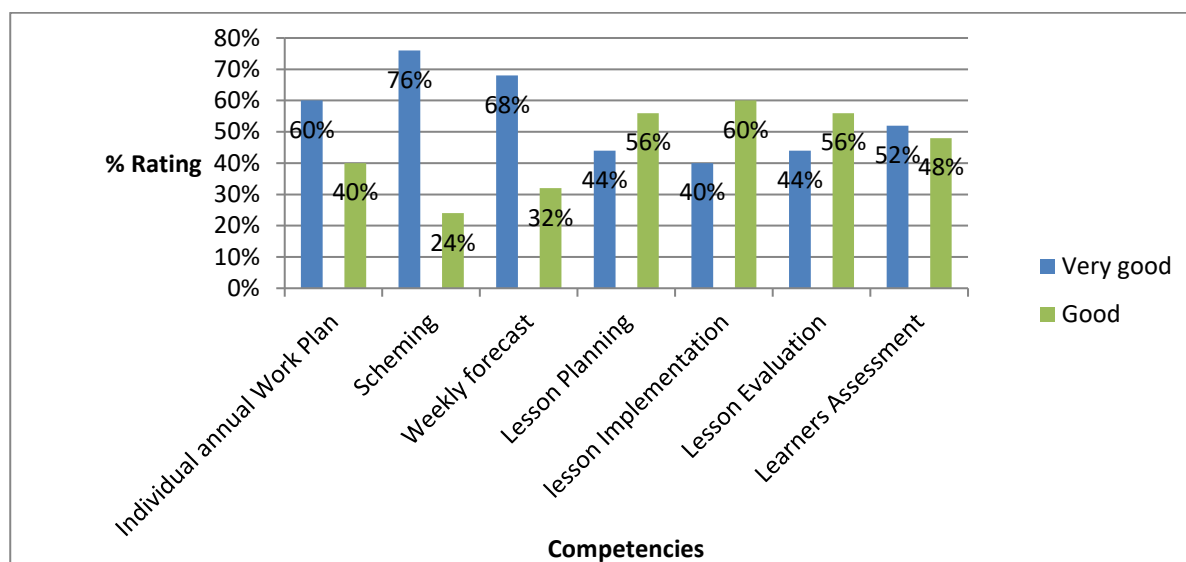


Figure 4.5.1.1 Rating of teachers' competencies by Head teachers

Have the teachers received any training on the 2013 revised curriculum in the school/district?

Out of all the head teachers interviewed 36 % claimed that teachers had been trained on the 2013 revised curriculum while 64 % claimed teachers had not been trained.

What are the main challenges the teachers are facing in implementing the revised curriculum?

All the head teachers (100 %) interviewed claimed that there were no textbooks to support the implementation of the revised curriculum in the schools at most grades with grades 4 and 7 being the worst affected. They also claimed that some of the textbooks supplied for use in implementing the revised curriculum by CDC such as MK were shallow in content and the content in these books did not match the revised curriculum. They wondered how Government could have procured them. Due to the slow pace at which Government was supplying the books to schools, they relied on old books. The other major challenge according to all the head teachers was the lack of hard copies of the revised syllabi in the schools. They all claimed that despite managing to access the soft copies of syllabi from the internet at a cost which they had also difficulties in printing out due to lack of ICT facilities most of those documents still remain in soft copies as they had no capacity to print them (Figure 4.5.1.2). Due to this challenge teachers were planning using textbooks not the approved syllabi. The 2013 ZECF states "it is should therefore, be noted that the ZECF does not provide detailed descriptions of subject content or desired learning outcomes. It leaves such level of

information to the syllabi and in some cases, the teacher curriculum manuals” (MoGE, 2013:1). This study found that schools had not been supplied with these important documents.



Figure 4.5.1.2 Head teacher explaining how difficult it was for the school in a remote area to print hard copies of syllabi

4.5.2 Interview Results on District Education Board Secretaries (DEBS) Perspectives

The District Education Board Secretaries (DEBS) perspectives on teachers' competencies were mostly obtained through interviews. The results were as presented under various headings detailed below.

Do you think that these teachers have the rightful competencies for implementing the revised curriculum in the schools in the district?

Out of all (100 %) the District Education Board Secretaries (DEBSes) who were interviewed 60 % claimed teachers possessed the rightful competencies for implementing the revised curriculum in the schools in the district while 40 % had mixed perceptions; of some possessing the competencies while others did not. The 60 % who claimed teachers possessed the rightful competencies attributed that mostly to the correct training teachers received at the college as well as the SBCPDs.

In your opinion how would you rate the teachers' competencies in the list below? (Please use either: good, very good or poor).

The District Education Board Secretaries' (DEBS) rating of the teachers competencies were as shown in Figure 4.5.2.1 below.

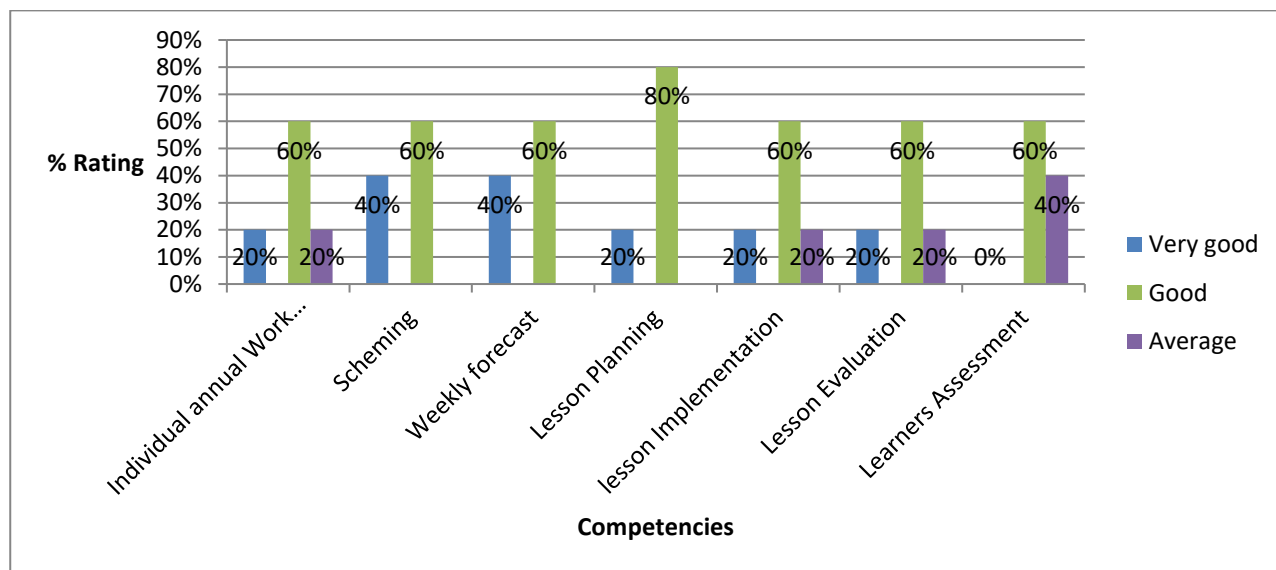


Figure 4.5.2.1 Rating of Teachers Competencies by DEBSes

Have the teachers received any training on the revised curriculum in the district?

All the DEBS interviewed claimed that teachers had been trained on how to implement the revised curriculum in the schools in the districts.

What are the main challenges the teachers are facing in implementing the revised curriculum

All the DEBS interviewed claimed that the slow pace and unsystematic manner in which textbooks to support the implementation of the new curriculum were being supplied to the districts, the lack of textbooks for the revised curriculum for grades 4 and 7 to support teaching and learning of the revised curriculum and the lack of hard copies of syllabi and shallow content and mismatch of content with the syllabi of most of the text books especially MK books that have so far have been supplied to the schools were serious challenges which they faced.

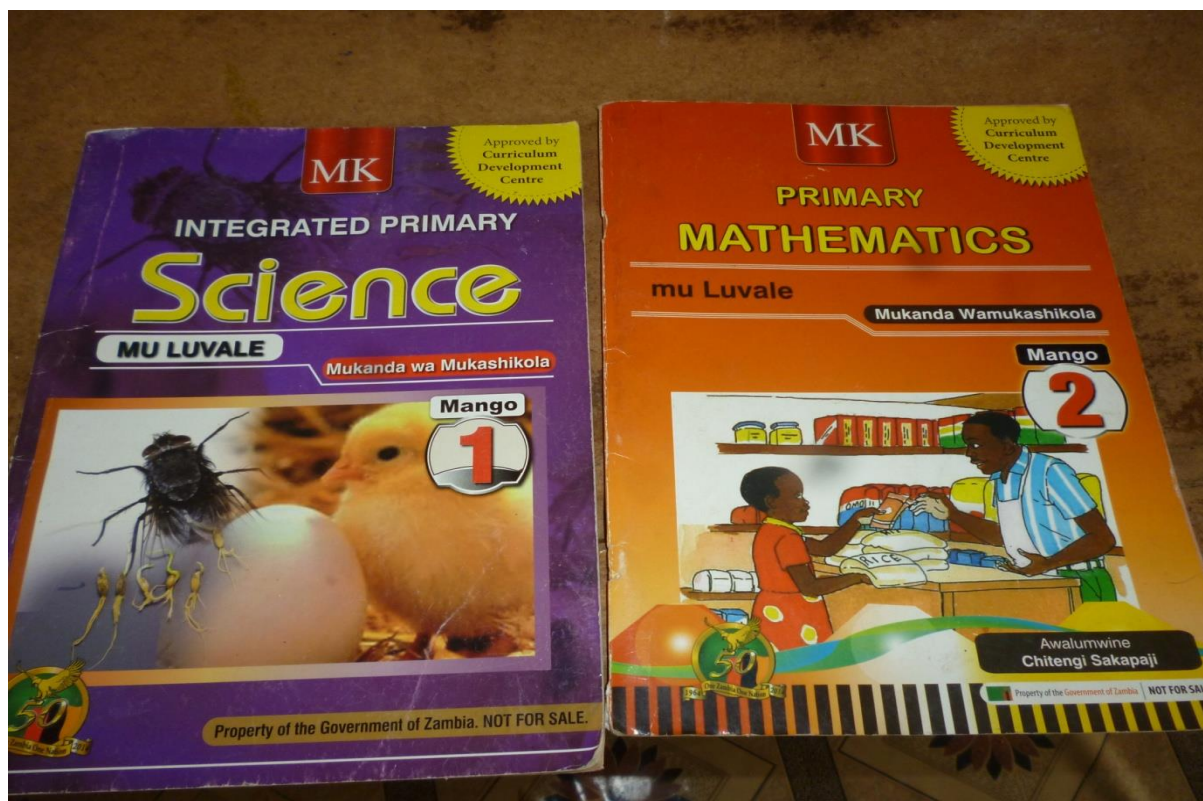


Figure 4.5.2.3 Some of the MK Books being questioned

4.5.3 Interview Results on Primary Teachers' Perspectives

Do you think that you have the rightful competencies useful for implementing the revised curriculum after obtaining your PTD?

Out of all the primary school teachers interviewed 92 % claimed they possessed the rightful competencies useful for implementing the revised curriculum while 8 % claimed they did not.

Do you think that you were adequately prepared to interpret the syllabus and also to scheme, lesson plan, implement and assess during your course of training at college?

Out of all the primary school teachers interviewed 87.2 % claimed they were adequately prepared to interpret the syllabus, scheme, lesson plan, implement and assess learners during their teacher training at the college while the other 12.8 % claimed they were not.

How would you rate your competencies in the list below? (Please use either: very good, good, average or poor).

The Primary school Teachers' rating of their competencies was as shown in Figure 4.5.3.1 below.

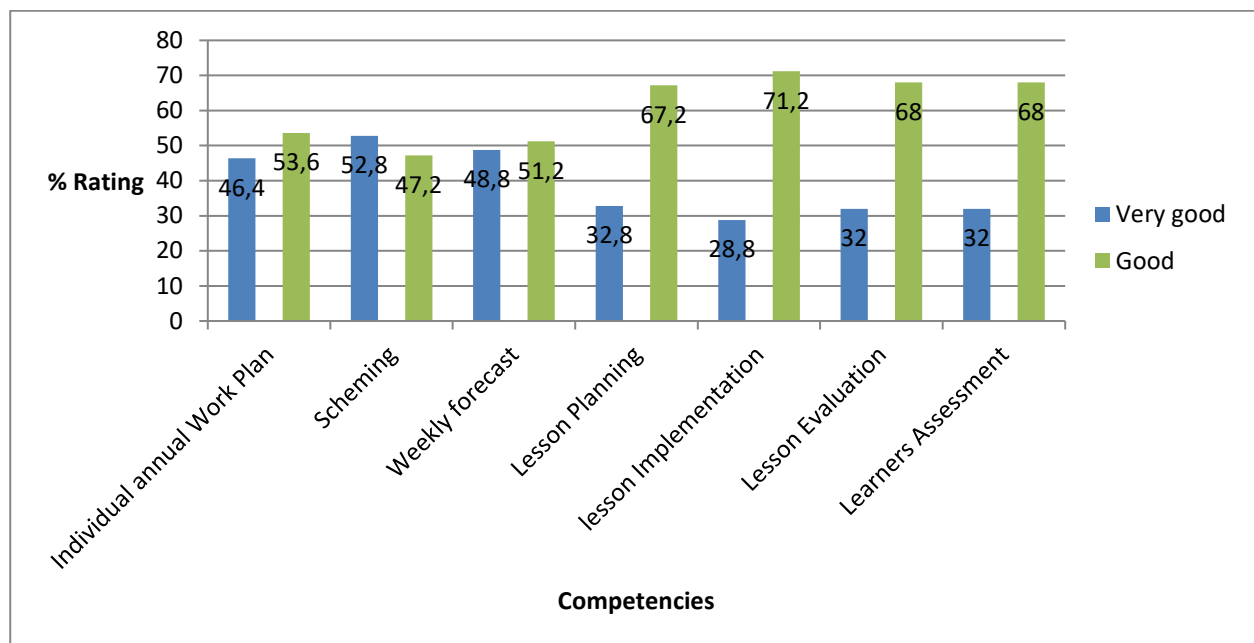


Figure 4.5.3.1 Rating of Teachers Competencies by Teachers

Have you received any further training after leaving college in the school/district?

Out of all the primary school teachers interviewed, 93.6 % claimed that they had received further training after leaving college in the school/district while 6.4 % claimed they had not. Of those who had received training 48 % claimed it was on the implementation of the revised curriculum while 52 % claimed it was on other educational aspects such as THRASS and not the revised curriculum.

What are the main challenges you are facing in implementing the revised curriculum in the school?

All (100 %) the teachers who were interviewed claimed that the main challenges included the slow pace and unsystematic manner in which textbooks to support the implementation of the new curriculum were being supplied to the districts; literary no textbooks for the revised curriculum for grades 4 and 7 had been supplied so far to support teaching and learning using the revised curriculum. The teachers also claimed they had no hard copies of syllabi for their planning, and also that the books which had been supplied so far were of shallow content and had mismatch of content with the syllabi especially MK books that have so far being supplied to the schools through the district.

4.6 Teaching Practice Results Analyses for the period 2015 -2017

Analyses of TP results for the periods 2015 to 2017 were conducted and the results are presented in Figures 4.6.1 to 4.6.3 below.

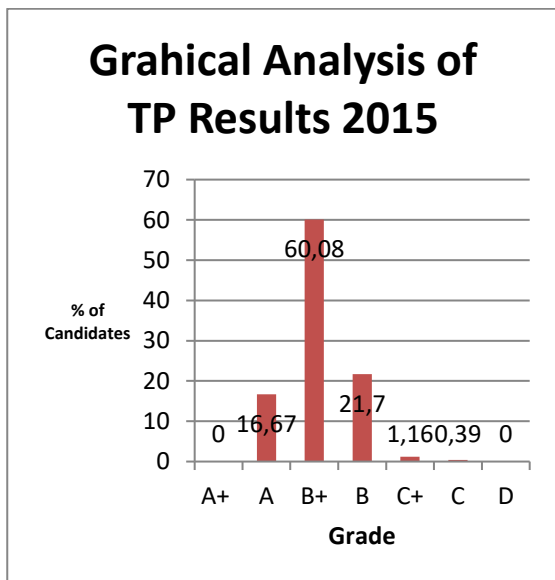


Fig. 4.6.1 TP Results Analyses 2015

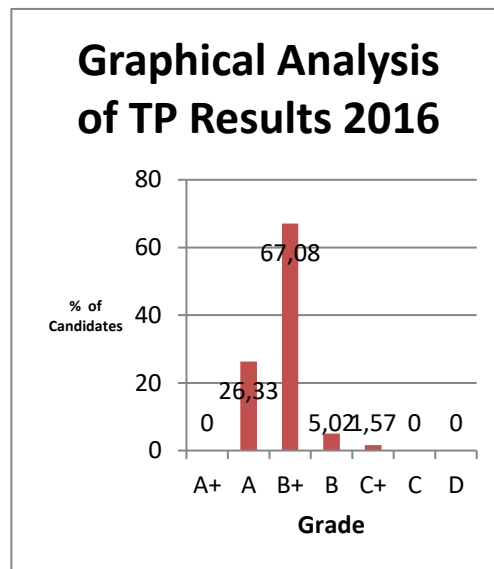


Fig. 4.6.2 TP Results Analyses 2016

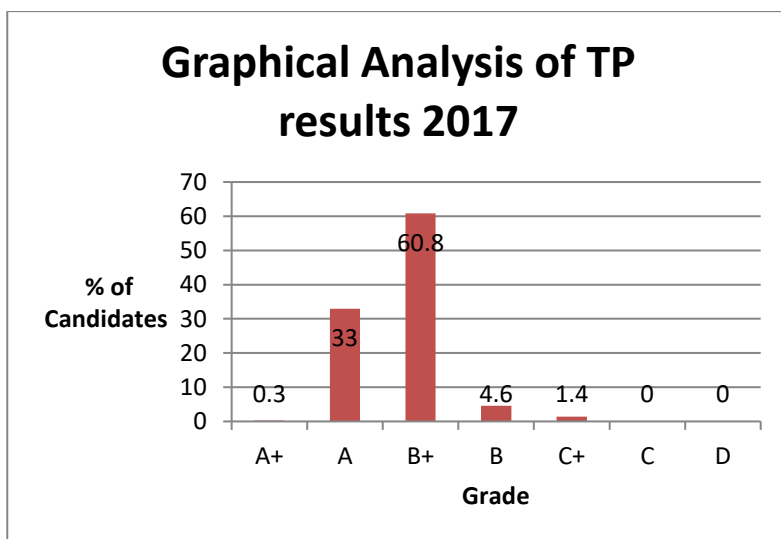


Figure 4.6.3 TP Results 2017

4.7 Final Examination Results Analysis 2016 - 2017

Also Analyses of Examination results for the periods 2015 to 2017 were conducted and the results are presented in Figures 4.7.1 to 4.7.2 below.

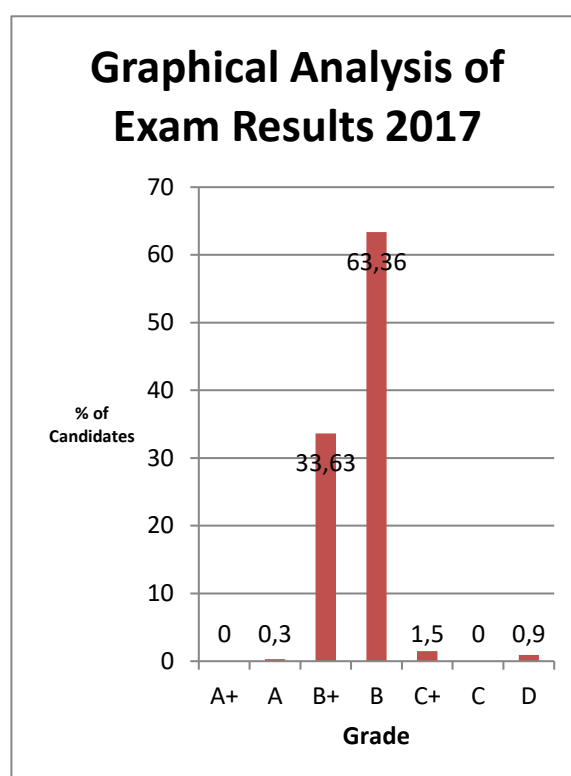
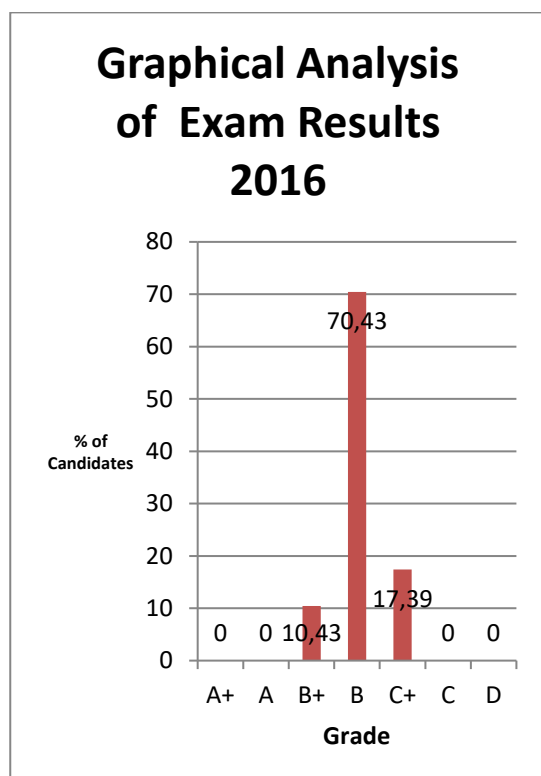


Figure 4.7.1 Examination Results Analysis

Figure 4.7.2 Examination Results Analysis

(Source: SOCE)

4.5 Statistical Analysis on key stakeholders' perspectives

Statistical analysis results on key stakeholders' perceptions of teachers' competencies in implementing the revised curriculum are summarized and presented in Table 4.1.

Table 4.5.1 Chi-square Analysis Results on Perceptions of teachers' competencies

P- value	Significance level	Tail Type	Inference
0.33462167*	0.05	Two tailed	same

Head teachers, District Education Board Secretaries and teachers' perceptions of teachers' competencies were the same.

*No significant difference

5 Discussion of Results

The results from Document analyses, lesson observations and interviews with key informants are briefly discussed under various headings below.

5.1 Planning Competencies of Teachers

Most individual work plans were of correct format; 40 % of the individual annual work plans were correctly done while 60 % were incorrectly done. The 60 % which were incorrectly done had incorrect information under key result area, principal accountabilities, schedule of activities and targets were incorrect for these 60 % (Figure 4.1.3.9). This suggests that majority of the teachers did not know how to write the individual work plans. Out of all the schemes of work, weekly forecasts and lesson plans analyzed only 14.4 % were in line with the 2013 revised curriculum, 16 % were average while 69.6 % were not. The 14.4 % that were in line with the 2013 revised curriculum included knowledge, skills and values components under content (competences); these were lacking in most of the plans. This suggests that majority of the teachers were still planning in the old way. This could be because majority of the teachers had not been oriented on how to implement the curriculum and had not been provided with the curriculum support materials such as syllabi, textbooks and teacher curriculum manuals recommended by the 2013 ZECF (MoGE, 2013). If majority of the teachers could not plan according the 2013 revised curriculum one wonders how learners at this level of education would be equipped with vital knowledge, skills and values that are necessary for contributing to the development of society and the economy envisaged by 2013 revised curriculum (MoGE, 2013). This could be a source of concern for all the educators at this level. Out of all the lesson plans analyzed 63.2 % had outcomes clearly stated, 33.6 % were average while 3.2 % were not clear (Figure 4.1.1.2). Also out of all the lesson plans analyzed 0.8 % had outcomes inappropriate for grade level, 25.6 % were average while 73.6 % were appropriate for pupils grade level (Figure 4.1.1.3). Out of all the lesson plans analyzed 1.6 % of the stated lesson outcomes were not attainable, 28 % were average while 70.4 % were attainable; 44.8 % of the outcomes stated were not measurable, 19.2 % were average while 36 % were measurable (Figure 4.1.1.4). This suggests that teachers were incapable of setting specific measureable achievable realistic and time-bound outcomes (Figure 4.1.1.5). According to Education Act No. 23 of 2011, the MoGE is the custodian of quality education provision and will ensure that all providers adhere to the policy and regulations on curriculum but the findings this study in the area of planning suggest that this assurance was weak. In terms of structuring the lesson, 88 % of the lesson plans had good introduction, 11.2 % had average introduction while 0.8 % had no introduction at all (Figure 4.1.2.1); 84.8 % had detailed lesson development, 14.4 % while 0.8 % had no lesson development (Figure 4.1.2.2) ; 77.6 % had good lesson conclusion, 20 % average and 2.4 % did not have any conclusion (Figure 4.1.2.3). However most of the lesson plans analyzed showed that majority of the teachers were able to structure a lesson very well. Most lesson plans showed evidence of considering pupils previous knowledge and were based on sufficient pedagogical skills and subject matter except for only 2.4 % of the lesson plans that were short of these qualities (Figures 4.1.3.1; 4.1.3.2; 4.1.3.3). The lesson plans also included the teaching and learning aids (Figure 4.1.3.4). Out of all the lesson plans analyzed only 8 % were planned for subjective learning of pupils, 74.4 % were planned with certain level of considering pupils, 4 % were planned insufficiently while 0.8 % of the plans were unacceptable level (Figure 4.1.3.5). These results suggest majority of the teachers

had the rightful planning competencies but despite planning according to the old curriculum. The 10 % of the teachers planned according to the revised curriculum.

Interviews and focused group discussions with teachers suggested that the teachers were good as most of them claimed to have the rightful competencies for implementing the revised curriculum despite planning in the old way. This was not convincingly evident in their planning, lesson implementation and assessments. Interviews with District Education Board Secretaries and School Head teachers suggested that the teachers from the college were very good and had the rightful competencies useful for implementing the revised curriculum, but doubted their assessment competencies. Also they claimed that the teachers had been oriented on how to implement the curriculum.

5.2 Ability of Delivering (Implementing) a Planned Lesson

Overall analyses of lessons conducted suggested that 2.4 % were conducted with 100% pupils having subjective learning, 47.2 % were conducted with 50 % of the pupils having subjective learning, 27.2 were conducted with more than 50 % of the pupils having subjective learning, 22.4 % conducted with less than 50 % of the pupils having subjective learning while 0.8 % were conducted but no pupils showed subjective learning (Figure 4.3.6). These results suggest is that majority of the teachers were not able to deliver learner-centred lessons. According to the guiding principles of outcome-based education recommended by the 2013 ZECF (MoGE, 2013) the teachers lesson delivery abilities were weak in methodology and content. The results from lessons observations in class showed that majority of the teachers conducted the introduction, lesson development and conclusion parts as planned in their lesson plans (Figures 4.2.1.1, 4.2.1.2; 4.2.1.3; 4.2.1.6). It was also evident from lesson observations that majority of the teachers made an effort to confirm certain concepts, values, knowledge and skills to the pupils during the lessons. There was also time in the lesson for the teachers to confirm whether or not the pupils had learnt through class exercises (Figure). Most of the content presented in the lessons was found to be correct and pupils' group activities were in most lessons well planned and executed by the teachers and helped to enhance learning of pupils (Figure 4.2.2.2). The teaching and learning aids were adequate and relevant in most of the lessons observed (Figure 4.2.2.4). Pupils were given chance to make presentations in class after the group activities in most of the lessons that were observed (Figure 4.2.2.5). This suggests that teachers possessed the rightful lesson delivery competences. However, indications from lesson observations suggested that most of the teachers were unable to implement good learner-centered lessons.

5.3 Ability of Assessing Pupils' Learning Achievements

Out of all the assessment items analyzed such as tests, class exercises and home works 12 % were unacceptable standard or level, 8 % were insufficiently, 1.6 % was planned without considering level of pupils, 75.2 % were planned with certain level of considering pupils while 3.2 % were planned for subjective learning of pupils. These results suggest the assessment competencies of most of the teachers were very weak. Most assessment items did not conform to the dictates of

Bloom's Taxonomy. Results from analyses of assessment items such as tests suggested that teachers lacked the competencies for structuring acceptable standard assessment items such tests (Figure 4.4.5).

5.4 Meta- Analysis of Teaching Practice (TP) and Examination Results in Context of Results of the Study

TP results show that 60 % of the students scored at least a merit (B+) (very good) while examination results indicate that 60 % of the students scored B (good) results of this study found that 60 % of the teachers were good. Comparisons of the results of this study with the TP and examination results suggest that teachers' scores were higher during TP than during examination and when they were permanently employed. While TP Analyses results (Figures 4.6.1; 4.6.2; 4.6.3) suggest that teachers' competences were very good the results of this study and those of Examination suggest the contrary (Figures 4.7.1; 4.7.2). The TP results may be confounded.

5.5 Gaps and Implications of the Study

The major gaps found were the weak planning and assessment competencies of the teachers evidenced by analyses of individual work plans, schemes of work, weekly forecasts and lesson plans. Most of the schools had no hard copies of syllabi for the revised curriculum in the schools which was presenting serious challenges to planning by the teachers (Figure 4.5.1.2). Even with the soft copies of syllabi the teachers had accessed through internet sources, these had certain topics with no specific outcomes, knowledge, skills and values outlined which made planning by teachers still extremely difficult. Meanwhile the 2013 ZECF clearly states that all learning institutions should have the ZECF and other important curriculum related documents and syllabi which will function as key daily guides and tools to ensure the provision of quality education (ZECF, 2013) but these were not available in hard copies in the schools. It is also not clear from the 2013 ZECF how the schools were to access these documents. Most of the teachers had not been oriented let alone trained on how to go about implementing the revised curriculum in the districts studied and the ZECF is silent on this.

The implications in relation to the gaps therefore could be that SOCE should focus its training to desk students on planning, implementation and assessments based on the revised curriculum and should procure syllabi for its trainee teachers so that they are acquainted to it. MoGE/CDC should urgently supply hard copies of syllabi and address the issue of MK books that had been raised. The head teachers and DEBS should strengthen monitoring and supervision of continuing professional development activities in their schools and districts and focus these on the revised curriculum. Teachers could be trained on the revised curriculum by MoGE through Teachers Colleges using Resource Centres in the districts

6.0 Conclusion and Recommendations

The main aim of this study was to assess primary school teachers from SOCE competences in implementing the 2013 primary school education revised curriculum. The teachers' competences

were assessed through document analyses, lesson observations and interviews. The main findings of the study were that 14.4 % of the teachers were able to plan according to the 2013 revised curriculum. The schemes of work, weekly forecasts and lesson plans that were not in line with the revised curriculum lacked the knowledge, skills and values (attitudes) components which the 2013 revised curriculum is emphasizing. The study found that although 63.2 % of the lesson plans had lesson outcomes clearly stated 44.8 % of those outcomes were not measurable. Majority of the teachers were unable to set up specific lesson outcomes. Overall analyses of lessons conducted suggested that 2.4 % were conducted with 100% pupils having subjective learning, 47.2 % were conducted with 50 % of the pupils having subjective learning, 27.2 were conducted with more than 50 % of the pupils having subjective learning, 22.4 % conducted with less than 50 % of the pupils having subjective learning while 0.8 % were conducted but no pupils showed subjective learning (Figure 4.3.6). These results suggest that majority of the teachers were not able to deliver learner-centred lessons. Most of the content presented in the lessons was found to be correct and pupils' group activities were in most lessons well planned and executed by the teachers and helped to enhance learning of pupils (Figure 4.2.2.2). The teaching and learning aids were adequate and relevant in most of the lessons observed (Figure 4.2.2.4). Pupils were given chance to make presentations in class after the group activities in most of the lessons that were observed (Figure 4.2.2.5). This suggests that teachers possessed the rightful lesson delivery competences. However, indications from lesson observations suggest that most of the teachers were unable to implement good learner-centered lessons. Out of all the assessment items for pupils prepared by the teachers such as tests and class exercises 32.8 % were not well set, 38.4 % were average while 28.8 % were well set. Those test items which were not well set lacked clear-cut instructions, marks allocation, duration and dates; and were at the knowledge level in Bloom's Taxonomy. It was also found that 44 % of the schools in the sampled districts teachers were using hard cover note books as Teaching Files instead of the traditional Box Teaching Files. Teachers, Head teachers and DEBSes' perceptions were that the teachers from SOCE were good but had mixed perceptions on whether or not teachers had been trained on the the revised curriculum. While 100 % of the District Education Board Secretaries and 36 % of head teachers were affirmative on this topical issue 52 % of the teachers were in the negative. The main challenge teachers, schools and the district faced in implementing the 2013 revised curriculum was the lack of hard copies of the 2013 Primary School Education Syllabi, lack of new textbooks; particularly for Grades 4 and 7 to support the implementation of the revised curriculum and also the shallow content or mismatch of content to syllabi in the supplied textbooks so far. The most mentioned book by all the respondents for this case was MK. Inferring from these results the study concluded that majority of the teachers did not possess the rightful competences for implementing the 2013 revised curriculum. majority of teachers were unable to set up specific measurable attainable realistic time-bound lesson outcomes; despite being able to structure a lesson very well., majority of the teachers were unable to deliver good learner-centred lessons, unable to do detailed lesson evaluations and were unable to set good test items. The teachers' assessment skills were also very weak. Based on these results, the study recommends re-training for the teachers in order to re-sharpen their planning, lesson delivery and assessment competencies to align them with the demands of the 2013 revised curriculum. This

could be achieved through the college (SOCE) or/and other key stakeholders such as Teachers' District Resource Centres or Zones through continuing profession development (CPD) programmes. There is also urgent need for speed supply of hard copies of the syllabi (revised curriculum) and relevant textbooks to schools by the Ministry of General Education and CDC so that teachers have something to plan from. The Mk books frequently being questioned and referred to by all the participants throughout this study needed to be reviewed by CDC and the Ministry of General Education. SOCE should strengthen planning, lesson delivery and assessment skills to students on the desk so that they are fully prepared.

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APPEDICES

APPENDIX A: Assessment Instrument for Teachers' Competencies

Name of Teacher:	District:	
Position:	School:	
Gender:	Subject observed:	
TS No.:	Date:	
Topic of Lesson:	Grade:	No. of Pupils: -----/ F---

PART A: Planning- Ability of planning a Lesson

Was the teacher able to plan a lesson which enabled pupils to learn subjectively?					
Overall Evaluation (P)	<input type="checkbox"/> Plan was unacceptable level.	<input type="checkbox"/> planned insufficiently.	<input type="checkbox"/> planned without considering pupils.	<input type="checkbox"/> planned with certain level of considering pupils.	<input type="checkbox"/> planned for subjective learning of pupils.

Planning – 1 Ability of setting up Lesson outcomes		NO	AVG	YES
P1-1	Were the lesson outcomes clearly stated in the lesson plan?			
p-1-2	Were the stated outcomes appropriate for pupils' grade level of learning?			
p-1-3	Were the stated outcomes attainable by the pupils in the lesson?			
p-1-4	Were the stated outcomes measurable?			
Planning – 2 Ability of structuring a Lesson				
P-2-1	Was there an introduction in the lesson plan?			
P -2-2	Was there a lesson development part in the lesson plan?			
P -2-3	Were there conclusion and evaluation parts in the lesson plan?			
p-2-4	Were the activities in lesson development part planned to achieve the lesson outcomes?			
P-2-5	Was the lesson planned based on sufficient subject matter knowledge?			
p-2-6	Was the lesson planned based on sufficient pedagogical skill?			
P-2-7	Was the lesson planned in line with the revised curriculum?			
Planning -3 Ability of Considering Pupils				
P -3-1	Were activities for pupils in the lesson planned?			
p-3-2	Did the teacher plan the lesson considering the previous knowledge of pupils?			
p-3-3	Were teaching materials prepared to support learning by pupils?			
p-3-4	Were teaching materials adequate to support learning by pupils?			

PART B: Delivering – Ability to Delivering a Lesson

Was the teacher able to plan a lesson which enabled pupils to learn subjectively?					
Overall Evaluation (D)	<input type="checkbox"/> conducted but no pupils	<input type="checkbox"/> conducted with less than 50	<input type="checkbox"/> conducted with 50 % of	<input type="checkbox"/> conducted with more than	<input type="checkbox"/> conducted with 100% of

	showed subjective learning.	% of the pupils having subjective learning.	pupils having subjective learning.	50 % of pupils having subjective learning.	pupils having subjective learning.
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Delivering – 1 Ability of Delivering Lesson Plan		NO	AVG	YES
D-1-1	Were the lesson outcomes explained during the lesson?			
D-1-2	Was the introduction conducted as planned?			
D-1-3	Was the development conducted as planned?			
D-1-4	Did the teacher attempt to confirm a particular concept or values or skill in the process of teaching?			
D-1-5	Was there a time of evaluating the lesson to confirm whether the pupils had learnt?			
D-1-6	Was the conclusion conducted as planned?			
D-1-7	Was the lesson content correct?			
Delivering- 2 Ability of Enhancing Pupils Subjective Learning				
D-2-1	Was there a group activity for pupils in the lesson?			
D-2-2	Was the pupils' group activity well organized?			
D-2-3	Was the pupils' group activity relevant?			
D-2-4	Were the teaching and learning aids adequate for the group activity?			
D-2-5	Was there a presentation from the pupils in the lesson?			
D-2-6	Did the activity enhance pupils' knowledge, skills and values in the lesson?			
PART C: Evaluation- 1 Ability of Evaluating the Lesson				
E -3-1	Were the lessons evaluated?			
E-3-2	Was the evaluation detailed and informative?			
E-3-3	Were teaching materials, methods, etc. included in the evaluation?			
E-3-4	Was there suggestion of improvement in the evaluation?			

Was the teacher able to assess pupils' achievements?					
Overall Evaluation (A)	[] Assessment items were unacceptable level.	[] Assessment items were insufficiently.	[] Assessment items were planned without considering pupils.	[] Assessment items were planned with certain level of considering pupils.	[] Assessment items were planned for subjective learning of pupils.

PART D: Assessment – 1 Ability of setting up a test, home work, assignment or class exercise		NO	AVG	YES
A-1-1	Was there class exercise, test, home work, assignment in the lesson?			
A-1-2	Were the class exercise/ home work/assignment/ test well set?			
A-1-3	Was the marking done and feedback given to pupils in good time?			
A-1-4	Were the assessment works revised?			
A-1-5	Did the assessments show pupils good progression?			

APPENDIX B: INTERVIEW GUIDE ON PRIMARY SCHOOL TEACHERS' PERCEPTIONS OF COMPETENCIES

Respondent Name: -----

Position: Date:

Station: ----- District:.....

1. Do you think that you have the rightful competencies useful for implementing the revised curriculum after obtaining your PTD?

Yes [] No []

2. Do you think that you were adequately prepared to interpret the syllabus and also to scheme, lesson plan, implement and assess during your course of training at college?

Yes [] No []

3. How would you rate your competencies in the list below? (Please use either: very good, good or poor).

Annual Individual Work Plan []

Scheming []

Weekly forecast []

Lesson planning []

Lesson Implementation []

Lesson Evaluation []

Pupils Assessment []

4. Please briefly explain what is very good, good or poor on each item you have commented on in the list?

5. Have you received any further training after leaving college in the school/district?

YES [] No []

6. If yes please specify.

7. What are the main challenges you are facing in implementing the revised curriculum in the school?

APPENDIX C: INTERVIEW GUIDE ON PRIMARY SCHOOL HEAD TEACHERS' PERCEPTIONS OF TEACHERS' COMPETENCIES

Respondent Name: -----

Position: Date:

Station: ----- District:.....

1. How many teachers have Primary Teachers' Diploma at this school?

Yes [] No []

2. Do you think that these teachers have the rightful competencies for implementing the revised curriculum in the schools in the district?

Yes [] No []

3. To what would you attribute this to?

Training [] SBCPD []

4. How would you rate the teachers' competencies in the list below? (Please use either: very good, good or poor).

Annual Individual Work Plan []

Scheming []

Weekly forecast []

Lesson planning []

Lesson Implementation []

Lesson Evaluation []

Pupils Assessment []

5. Please briefly explain what is very good, good or poor on each item you have commented on in the list.

6. Have the teachers received any further training after leaving college in the school/district?

YES [] No []

7. If yes please specify.

8. What are the main challenges the teachers are facing in implementing the revised curriculum?-----

APPENDIX D: INTERVIEW GUIDE ON DISTRICT EDUCATION STANDARDS OFFICERS' PERCEPTIONS ON TEACHERS' COMPETENCIES

Respondent Name: -----

Position: Date:

District:-----

1. How many teachers have Primary Teachers' Diploma in the district?

2. Do you think that these teachers have the rightful competencies for implementing the revised curriculum in the schools in the district?

Yes [] No []

3. To what would you attribute this to?

Training [] SBCPD []

4. In your opinion how would you rate the teachers' competencies in the list below? (Please use either: good, very good or poor).

Annual Individual Work Plan []

Scheming []

Weekly forecast []

Lesson planning []

Lesson Implementation []

Lesson Evaluation []

Pupils Assessment []

5. Please briefly explain what is very good, good or poor on each item you have commented on in the list?

6. Have the teachers received any further training after leaving college in the district?

YES [] No []

7. If yes please specify.

8. What are the main challenges the teachers are facing in implementing the revised curriculum?-----

APPENDIX E: DOCUMENT ANALYSIS GUIDE

Assessment and analysis of teaching documents (to be used hand in hand with lesson assessment instrument, appendix A)

1. LESSON PLANS

Format of lesson plans

A. General information

Topic:-----

Lesson:-----

Rationale:-----

References:-----

Teaching and learning aids:-----

Specific out comes/objectives:-----

B. Lesson Progress

Introduction:-----

Lesson development:-----

Conclusion:-----

Lesson evaluation:-----

Note: attach samples of lesson plans-----

2. SCHEMES OF WORK

A. Format of schemes of work

Topic:

Content:

Outcomes:

Content: knowledge; skills and value/attitudes

References:

WEEKLY FORECASTS

A. Format of weekly forecasts

3. ASSESSMENT TESTS

A. Formats of Test items -----
