Research

Breadth of Learning:
Measuring the Breadth of Learning in Zambian Primary Schools

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MEASURING THE BREADTH OF LEARNING IN ZAMBIAN PRIMARY SCHOOLS

CONTENTS

SUMMARY

This survey investigated the breadth of learning opportunities available in selected Zambian Primary Schools. The survey looked at the availability of teaching and learning resources, curriculum coverage (learning areas and contact time), teacher qualifications and experiences, professional development programmes, and learner support and community involvement. The survey revealed that all of the learning areas were adequately covered within the seven learning domains, although with the exception of the core learning areas, the time allocated was inadequate. It's also notable that reproductive health and sexuality is taught as a cross-cutting issue. Further analysis of the findings show that class sizes were relatively larger than recommended proportions, particularly in the higher grades. In terms of professional development programmes, the majority of the teachers were not benefitting from externally-facilitated programmes.

Findings also revealed that there were inadequate teaching and learning materials in schools to cater to all learners, as well as inadequate classroom support instructions across all learning areas and domains. The survey also showed that despite the availability of sports fields and football pitches, most schools lacked sports equipment.

Furthermore, the results revealed that school road safety programmes are either inactive or completely absent in most schools, and that most schools had no nutrition programmes. Finally, findings showed that problem-solving is the most important activity for developing critical thinking.

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1. INTRODUCTION

Education in Zambia is intended to serve individual, social, and economic well-being and to enhance the quality of life for all (Ministry of General Education: 1996, 3). Schools systems therefore must seek to create, promote, and support the conditions within which education can realise its full potential in the society. The demands of national development require that the education systems pays attention to human capital formation, particularly in developing the type of skills, values, and competencies that are necessary for economic and social welfare. This requires that schools create an enabling environment that supports learning. In this study we investigate whether primary schools in Zambia are providing the necessary requirements for developing learners' knowledge and skills to enable them to live a useful life and be able take up the rightful position in society. This entails giving attention to various interdependent factors, including the quality of the curriculum, teaching and assessment, the quality of teachers, administrative support, and community participation.

According to research, education of the 20th century was characterised mainly by content and knowledge accumulation (Care & Anderson, 2016). Skills development was dictated largely by the needs of the Industrial Age, which was in turn dominated by rote tasks and manual labour. Literacy, and to a lesser degree numeracy, were perceived as necessary in that they provided increased access to content and knowledge. Although literacy and numeracy remain key skills and are emphasised as the major goals of education in Zambia and around the world, they have also been viewed as primary means to open doors for children to participate effectively in society.

However, in this modern world, which is referred to as the “Information Age” or “knowledge economy,” there is a great need to apply a wide range of skills for learning, work, and life. These skills provide individuals with the means to access a multiplicity of mental and physical activities. It is therefore imperative that the education system focuses on activities or areas that aim at developing cognitive, social and emotional characteristics of learners. Shifts in skills, away from the narrow focus on literacy and numeracy and toward a breadth of skills, are needed to navigate our changing societies (Brynjolfsson & McAfee, 2016) and for individuals to function as responsible citizens. Many governments are aware of this need for a broader range of skills and make this explicit in their education systems.

In this survey, we examined the breadth of learning opportunities in Zambian Primary Schools across all learning domains or learning areas contained in the school curriculum. We focused on teacher qualification, class size, time spent on various activities across the learning domains, school curriculum, teaching and learning resources available, the continuous professional development offered, assessment, administrative support, pedagogy, learner support, and community participation.

2. THE BREADTH OF LEARNING IN ZAMBIAN PRIMARY SCHOOLS

2.1 Curriculum

According to the 1996 policy on education called "Educating Our Future": "the aim of education is to promote the full and well-rounded development of the physical, intellectual, social, affective, moral, and spiritual qualities of all learners so that each can develop into a complete person for his or her own fulfilment and for the good of society" (Ministry of Education, 1996). To meet these aspirations, the school curriculum at the lower primary school level offers five learning areas and the upper primary level offers seven learning areas. Creative and Technology studies is comprised of content that includes: Technology Studies, Home Economics and Expressive Arts for grades 1-4. See Table 1. below for the core learning areas.

Table 1: Core learning areas at lower and upper primary school level in Zambia

Core learning areas at the lower primary	**Core learning areas at the upper primary**
i. Literacy and Languages, or Sign Language or Braille	i. Literacy and Languages, or Sign Language or Braille
ii. Integrated Science	ii. Integrated Science
iii. Social Studies	iii. Social Studies
iv. Mathematics	iv. Mathematics
v. Creative and Technology Studies (CTS)	v. Expressive Arts
	vi. Technology Studies
	vii. Home Economics

In addition to the core learning areas, the curriculum also prescribes some co-curricular activities. These are organised activities that are part of the formal schooling. They are an avenue for developing and fostering life skills and positive behaviour and attitudes. The Ministry of Education Science, Vocation Training and Early Education (MESVTEE): (2013) emphasise that learning institutions should include in their programmes co-curricular activities for all learners, which promote a balanced and healthy life. Learners should participate in actively in like sports, clubs, societies, gardening, cultural presentations, and meetings of cultural and religious nature.

2.2 Lower Primary School Contact Time

Table 2 below shows the contact of time allocated to each learning area. At Grades 1 and 2, much time is devoted to teaching Initial Literacy and Numeracy skills so that learners acquire the competences for further learning. The minimum learner-teacher contact time for Lower Primary level is 21 hours per week. The duration for a single period at the Lower Primary (Grades 1-4) is 30 minutes.

Table 2: Time allocation per week

Learning Area	Time	Periods
1 Literacy and Languages	6hrs. 30min.	13
2 Mathematics	5hrs. 10min.	10
3 Social Studies	2hrs. 30min.	5
4 Integrated Science	2hrs. 30min.	5
5 Creative and Technology Studies	4hrs. 30min.	9

2.3 Upper Primary School Contact Time

The minimum learner-teacher contact time for Upper Primary level (Grades 5-7) is 28 hours per week. The duration for a single period at this level is 40 minutes. Again, more time is spent teaching English language, Mathematics and Integrated Science, and Zambian Languages per week compared to other subjects. See Table 3.

Table 3. Grades 5 to 7 Time Allocations per Week

Learning Area	Time	Periods
1. English Language	4hrs.	6
2. Mathematics	4hrs. 40min.	7
3. Integrated Science	4hrs.	6
4. Social Studies	3hrs. 20min.	5
5. Zambian Languages	4hrs.	6
6. Technology Studies	2hrs. 40min.	4
7. Expressive Arts	2hrs. 40min.	4
8. Home Economics	2hrs. 40min.	4

3. ASSESSMENT

Assessment is an important tool in the teaching and learning process and is used to determine whether teaching and learning have taken place or not. Standardised tests are not the only way of gauging learner achievement, performance assessments are also used to measure what learners know and can do. Assessment are classified as formative and summative according to MESVTEE (2013).

4. PHYSICAL ENVIRONMENT

The Zambian school curriculum framework demand that learning institutions should have appropriate infrastructure such as classrooms, lecture rooms/lecture theatres, tutorial rooms and specialised rooms, laboratories, workshops, and resource rooms. This infrastructure should be well stocked with adequate equipment and materials needed for effective teaching and learning. They should also have user-friendly facilities for learners, learners with Special Educational Needs, and Pre-School. The Library is a very important resource-room in a learning institution. Therefore, it must have adequate and appropriate reading and other learning materials for both learners and staff. Other facilities should include adequate play grounds for the learners. These are indoor and outdoor designated spaces for football, netball, volleyball, and other play and sporting activities. Sporting and play activities are necessary for learners' physical health and fitness. There should be space for production work where learners will be involved in the acquisition of practical skills.

5. TEACHER SUPPORT

5.1 Qualifications

The majority of teachers possess certificates and diplomas, but very few teachers are graduates or degree-holders. The aim of the Zambian government is to ensure that all teachers and educators are adequately equipped and well qualified. The current policy requires that the teachers have a diploma or degree qualifications at primary level. However, the Ministry of Education aspires to require all teachers to have a degree as a minimum qualification at every level.

5.2 Continuous Professional Development

The quality and effectiveness of an education system depend heavily on the quality of its teachers. They are the key personnel in determining success in meeting the system's goals. The educational and personal well-being of children in schools depends mostly on their competence, commitment, and resourcefulness. A number of studies report positive effects of teacher professional development on teaching practices. Well-trained, professionally qualified, and motivated teachers who are supported by well-resourced environments and efficient and effectively governing systems are essential. Extended professional development experiences, rather than one-time sessions, allow for more substantive engagement with subject matter, more opportunities for active learning, and the development of coherent connections to teachers' daily work (Birman, Desimone, Garet, & Porter:2000).

According to National Partnership for Excellence and Accountability in Teaching, (1998) professional development should be largely school-based and incorporated into the day-to-day work of teachers. Several studies have also revealed that professional development should be continuous, not episodic, and include follow-up and support for further learning (Association for Supervision and Curriculum Development, 2003).

It is recommended that professional development should respond to teachers' self-identified needs and interests in order to support individual and organizational improvements. Professional development is more meaningful to teachers when they exercise ownership of its content and process (King & Newmann:2001).

6. LEARNING APPROACHES AND COGNITION

It is important that teachers and teacher-educators use a variety of teaching methods and techniques in order to cater to learner needs, considering the available local resources. Teachers and teacher-educators should, as much as possible, use methods that promote activities that are learner-centred and interactive. Furthermore, they should focus on

methods that encourage learners to reflect, think, and do rather than reproduce from rote learning. In this regard, teachers and teacher-educators are strongly advised to use the Learner-Centred Approach(LCA) in the teaching and learning process.

This survey is very important because it's findings will be used to generate an infographic depicting the breadth of learning opportunities in Zambian primary schools at national and classroom levels. It will also help to determine where the curriculum falls short of being implemented; more importantly, the findings can be used by the Ministry of General Education to inform curriculum reforms.

7. RESEARCH QUESTIONS

This study was guided by the following research questions:

1. Does the Zambian School Curriculum provide the full breadth of learning opportunities to learners at primary school level?
2. What resources and facilities are available in Zambian primary schools to support teaching and learning?
3. What teacher and learner support exists in Zambian primary schools to support learning?

8. METHOD

8.1 Sample

The sample size was 1200 with complete responses from 1019 teachers (Female=74.43% and Male=25.57%). These were selected from 10 schools clustered in zones in Lusaka (54.99%) and Chongwe (45.01%) districts in Lusaka Province of Zambia. The teachers were purposely selected so that only those teaching at lower and middle primary school levels participated.

8.2 Design of the Questions

The questionnaire and tool for collecting data was developed during a two-day workshop organised by ZNUT and Education International with financial support from LEGO. Ten teachers selected from lower primary grades (1-4) and upper primary grades (5-7) in equal representation, were invited to a two days tool development workshop at Golden Peacock Hotel in Lusaka. Using the Brookings tool teachers adapted the Zambian Learning Areas within the Brookings model. The tool was then uploaded onto Survey Monkey.

8.3 Data Collection

Data was collected between 1 December 2016 and 31 January 2017. The ten teachers who participated in the tool development workshop were also trained to administer

the tool to teachers in their respective schools and zones. Each teacher was tasked with administering surveys to 120 teachers. The expected respondents were 1200 primary school teachers, but only 1019 completed the questionnaire in full giving a response rate of 85.25%. The response rate was good for this kind of a survey.

8.4 Data Analysis

The data was analysed in both excel and survey monkey to come up with figures, tables, and percentages.

9. RESULTS

This section shows the results after analysis of each question. The data was analysed using excel.

9.1 Teacher Background Information

This section presents results on teacher background information. The majority of the respondents (57.45%) were aged between 31 and 40 years old (Appendix 1-Q5). The age distribution reflects a relatively young cadre of teachers. The teaching experience of the teachers ranged between 6 and 10 years as shown in (Appendix 2-Q9). The majority of the teachers in the survey were diploma holders (50.44%), followed by certificates holders (49.46%), and less than 9.24% had degree qualifications (see Table 4). The duration of teacher training course for the majority of different respondents lasted between 1-2 years for certificate and diploma programmes and 37.72% indicated 3-4 years for degree programmes. However, the Zambian Government has since revised the duration of diploma teacher training programmes to 3 years. The aspirations of the Ministry of General Education are to have all teachers have a degree qualification at a minimum.

Table 4. Qualifications of Teachers in the Survey (Question 6).

Qualifications	No.	Percentage
Certificate in Education	503	49.5%
Diploma in Education	513	50.4%
Degree in Education	95	9.2%
Master Degree	3	0.3%
Untrained	6	0.6%
Any other qualification	32	3.1%

9.2 Class size

Table 5 shows that the majority of the teachers (679) in the survey were teaching 51 or more learners. This is higher than the recommended class size of 45 learners per class in public primary schools in Zambia. In terms of class size, the table also shows that the first-grade teachers had the lowest number of learners compared to other grades (1-20 learners per class).

Table 5: Class size at different grade levels

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Total	Weighted Average
1-20 Learners	**45.45%** 15	**6.06%** 2	**9.09%** 3	**3.03%** 1	**9.09%** 3	**18.18%** 6	**9.09%** 3	33	3.15
21-35 Learners	**13.64%** 9	**16.67%** 11	**24.24%** 16	**13.64%** 9	**4.55%** 3	**9.09%** 6	**18.18%** 12	66	3.79
36-50 Learners	**14.44%** 41	**12.32%** 35	**16.90%** 48	**13.73%** 39	**14.79%** 42	**17.25%** 49	**10.56%** 30	284	3.96
51 and above	**8.39%** 57	**15.02%** 102	**14.58%** 99	**16.64%** 113	**15.76%** 107	**15.46%** 105	**14.14%** 96	679	4.19

10. BREADTH OF LEARNING

This Section presents results on the coverage of the Zambian School Curriculum and opportunities available for learners in the seven learning domains.

10.1 Physical Well-being

10.1.1 Curriculum coverage. The well-being domain is reflected in the following learning areas in the Zambian school curriculum; Physical Education, Health and Nutrition. Table 6 reveals that the majority of the respondents spent between 0 and 1 hours per week on Physical Well-being (Physical Education=62.10%, Health=58.64% and Nutrition=61.76%). However very few respondents reported spending more than two hours teaching Physical Well-being. This is in variance with what is provided for in the Zambia School Curriculum as illustrated in Figure 1 below.

Figure 1: A typical Time Table for a Grade 3 Class in Zambia

According the Zambian Primary School Curriculum, Physical Education is integrated in Creative and Technology Studies at lower primary level (refer to Table 1) and according to Figure 1, only 60 minutes is spent on Physical Education (P.E) and Home Economics (H.E) per week which is consistent with the findings. Similarly, at upper primary level Physical Well-being is catered to in Expressive Arts and Home Economics. According to Table 3, 4 hours and 40 minutes is provided for expressive arts and Home Economics, but it is not clear how many hours are reserved for Physical Well- being within the study area. Table 6. shows how many hours per week are spent on Physical Education, Health, and Nutrition.

Table 6: Number of hours spent on wellbeing per week

	0 - 1 hour	1 - 2 hours	2 -3 hours	Total Respondents
Physical Education	**62.10%** 575	**29.91%** 277	**9.40%** 87	926
Health	**58.64%** 502	**32.13%** 275	**10.28%** 88	856
Nutrition	**61.76%** 499	**27.10%** 219	**11.88%** 96	808

10.1.2 Sports Competitions. The survey revealed that 51.13% of the respondents indicated that internal sports competitions are held termly and 30.52% said they held them yearly. This is also in line with the recognised sports programme in Zambian schools. Detailed illustrations are shown in Figure 2- Q12. In the same vein, Appendix 3- Q17 shows that the majority of the respondents indicated they had playgrounds (81.26%), football pitches (82.40%), netball grounds (74.74%), volleyball courts (33.95%), and running tracks (54.45%). However, most schools did not have swimming pools (1.79%), sports halls (3.11%), cricket pitches (0.62%) or tennis courts (4.04%). These sports or activities associated to such facilities are considered to be only for learners with elite backgrounds and mostly found in private schools. In addition to this, the facilities are expensive to put up and maintenance costs are usually high in Zambia. The survey further revealed that most schools had inadequate sports equipment to enable all learners to play (see Appendix 4-Q 18).

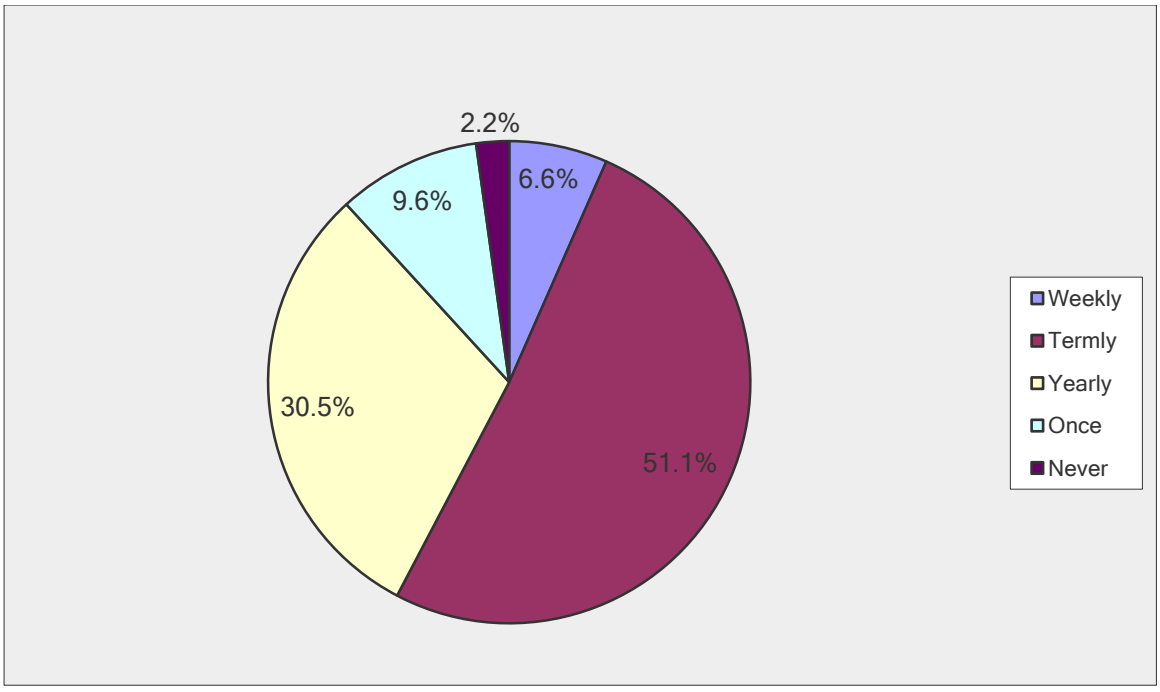

Figure 2: How often do you have internal school competitions?

10.1.3 Extracurricular. Figure 3- Q13 shows that 56.72% of the respondents indicated that their learners moderately or slightly often participated in extra-curricular activities at their schools. While only 38.37% indicated their learners extremely often or very often participated. According to the findings, the majority of the learners are not very often engaged in extra-curricular activities. According to the Ministry of Education in Zambia Curriculum, institutions of learning should develop rich and varied programmes of activities that promote a balanced and health development of learners, and if learners are not very often involved then they may not develop well.

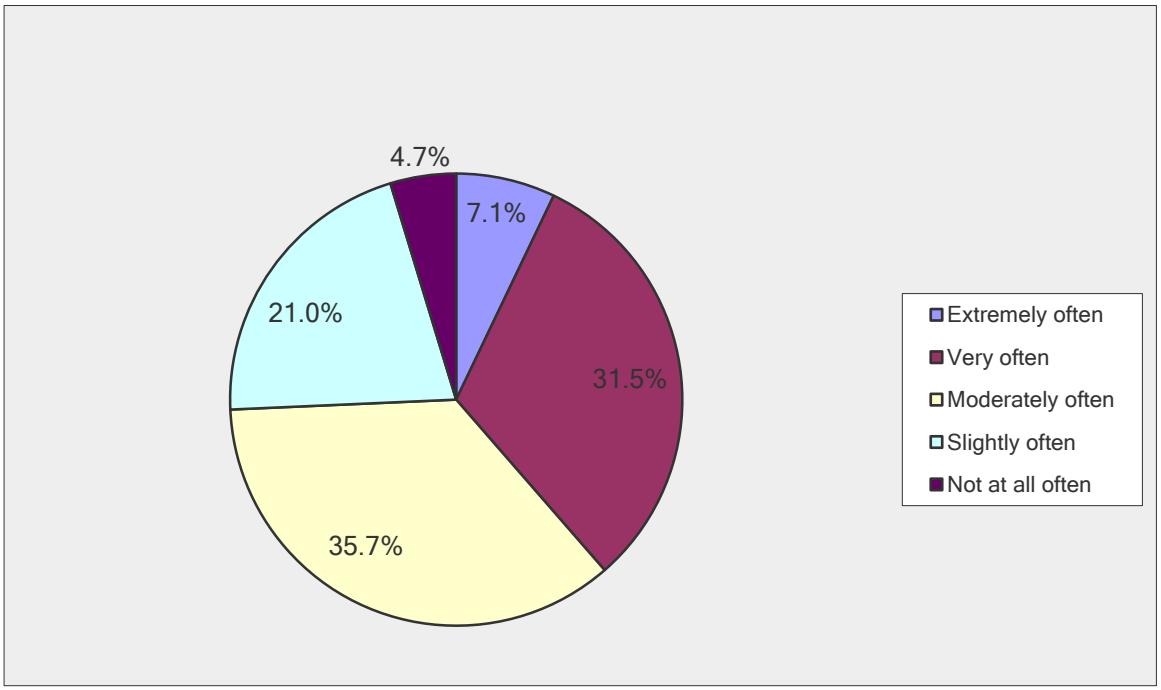

Figure 3: How often do your learner participate in extracurricular activities at your school?

10.1.4 Health talks and school nutrition programmes? In terms of health talks in schools, 43.27% of the teachers indicated that they have weekly health talks at their schools, and 20.39% said they had them termly. Only 7.35% indicated they never had health talks, while 15.73% had them every fortnight as shown in Appendix 3- Q14. Figure 4-Q19 shows that 46.86% of the respondents indicated that they invited medical personnel into the school to check learners' health termly and 21.86% never did so. This is not good for the well-being of learners, but understandable in Zambia where the issue of the child's health is basically thought to be the responsibility of parents, contrary to the provisions of the government policy on Educating Our Future (MOE1:996). Appendix 6- Q20 reveals that learners are not benefitting from the school nutrition Programmes. More than 50% of the respondents indicated that their learners never benefitted from the school nutrition programmes. This could be very true because the school nutrition programmes have not rolled out to every school in Zambia due to financial challenges, but it is the governments' intention to ensure that every school child in primary school has access to some food while at school.

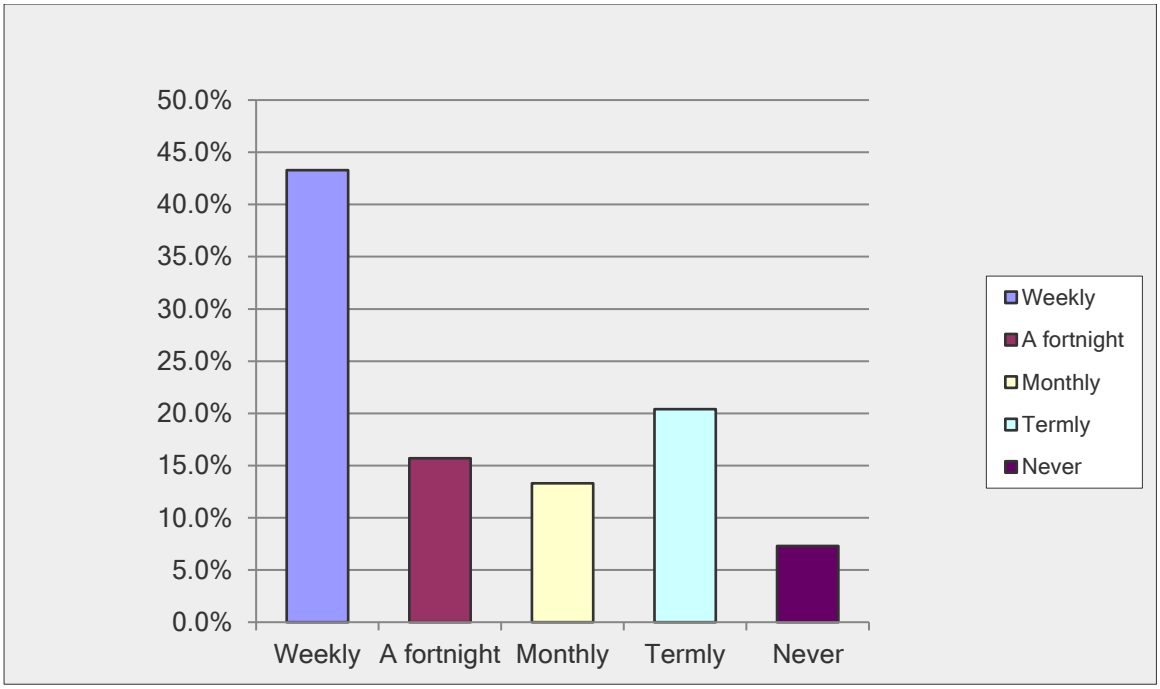

Figure 4: How often do you have health talks at your school?

10.1.5 Reproductive health and sexuality. Table 7 shows that the majority (72.37%) of the respondents indicated that reproductive health and sexuality are treated as a cross-cutting issues and 21.13% indicated that it was taught in specific subjects. The Zambian School Curriculum gives teachers professional autonomy to decide what and when to teach, as long as it is in line with the school curriculum. This is clearly demonstrated in the responses from teachers (81.44%) who indicated that they had the power to make professional decisions in the delivery of Physical Education in the classroom (See Appendix 4-Q 16).

Table 7: Q15-How do you approach reproductive health and sexuality in your schools?

Answer Options	Response Percent	Response Count
Cross Cutting issue	72.4%	702
Specific subject	21.1%	205
Co-curricular	5.8%	56
Never	0.7%	7

10.1.6 School road safety programme. The survey indicated that the school road safety programmes are either barely active or inactive in most of the schools. Table 8-Q21 shows that only 14.2% and 28.9% respondents indicated that the Road Safety Programmes were very active or active respectively. This is contrary to the school curriculum, which emphasizes the teaching of road safety programmes from early grades to help reduce road traffic accidents.

Table 8: Q21-How active is your school road safety programme

How active is your school road safety programme?		
Answer Options	**Response Percent**	**Response Count**
Very active	14.2%	136
Active	28.9%	277
Barely active	22.3%	214
Inactive	34.7%	333

10.1.7 Support from school administration. The survey revealed that in Physical Education only 47.93% of the teachers sometimes receive support from the school administration. Figure 5- Q22 indicated that only 26.71% often receive the required support from school administration to deliver lessons and 17.81% rarely got it. Almost 89.35% of the respondents acknowledged that Physical Education and Health were part of the teacher education curriculum while about 10.66% either indicated no or not sure.

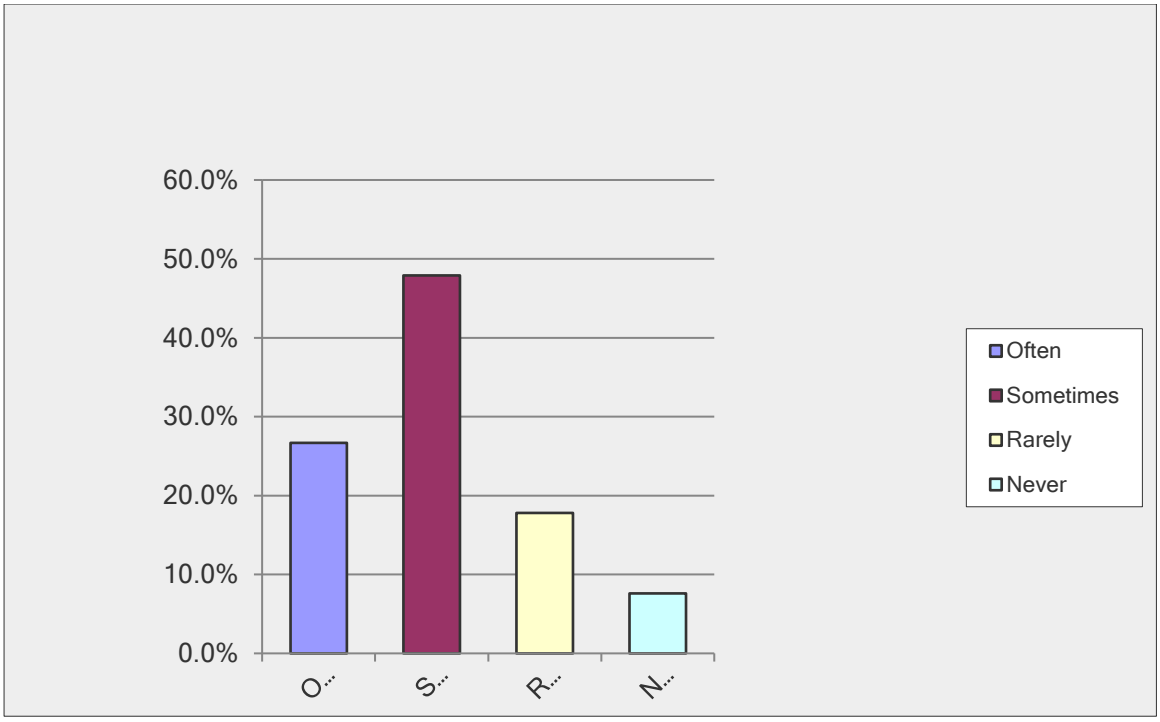

Figure 4: Support received from school administration to deliver physical education lessons

10.1.8 Engagement in Continuous Professional Development (CPD) provided by external provider. The survey further revealed that 41.18% of the respondents had never attended any CPD facilitated by an external provider with expertise in Well-being. Only 15.07% indicated they had attended it once (SEE. Appendix 5-Q 24). The Table 9- Q25 revealed that less than 25% of the respondents indicated that they often engaged in Continuous Professional Development in Physical Education, Health, and Nutrition, while the majority reported they engaged sometimes, rarely or never in all the subject areas.

Table 9: Q25- Engagement in CPD in well-being

How often are you engaged in Continuous Professional Development(CPD) in the following areas:						
Answer Options	**Often**	**Sometimes**	**Rarely**	**Never**	**Rating Average**	**Response Count**
Physical Education	182	351	208	202	2.46	943
Health	201	332	186	183	2.39	902
Nutrition	134	296	225	241	2.64	896
answered question						**974**
skipped question						**49**

10.2 Social and Emotional

10.2.1 Curriculum coverage. The respondents indicated that Social and Emotional learning domains are reflected in the Zambian School Curriculum in Social Studies (95.42%), Integrated Science (61.56%), Literacy and Languages (57.40%), Expressive Arts (64.17%), Mathematics (39.27%), and Technology (48.96%). Responses indicate that Social and Emotional domain is reflected in Social Studies in the school curriculum, even though it is taught across the all learning areas.

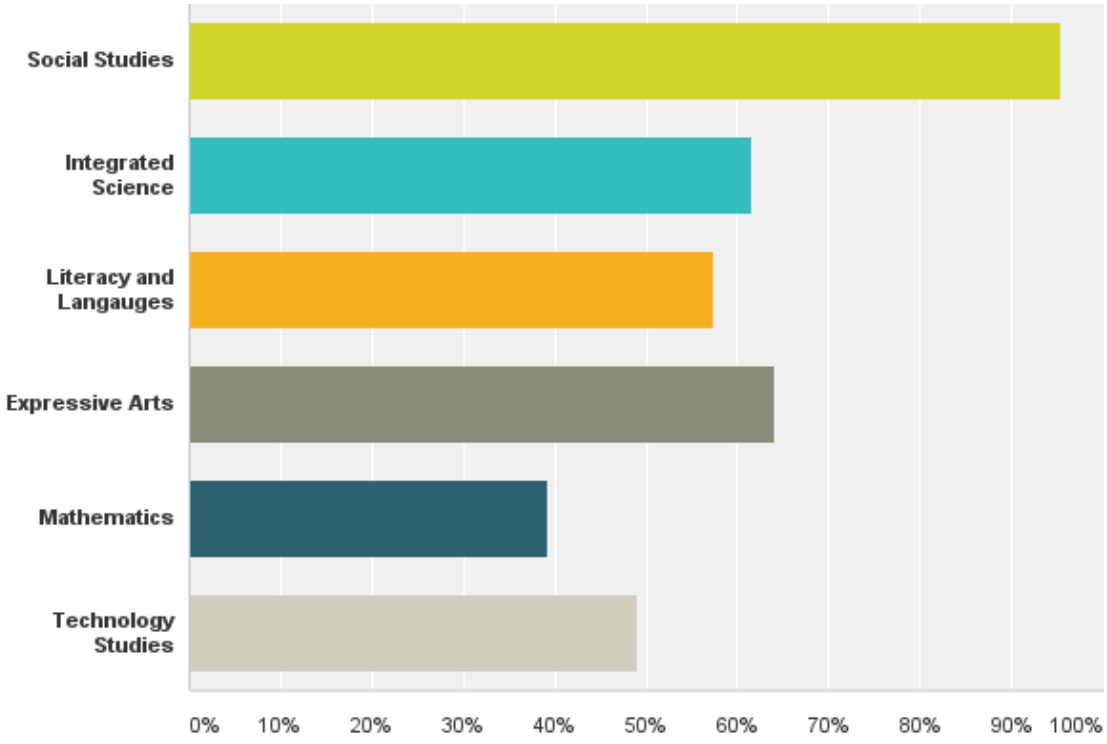

Figure 5: Social and Emotional studies in core learning areas

10.2.2 Contact time. In terms of number of hours spent on Social and Emotional studies, 62.69% of the respondents indicated that they spent between 0-1hrs per week on this domain, 32.48% spent between 2-3 hours per week and 9.49% spent about 4.5 hrs. The recommended contact time for Social and Emotional studies is 3 hours, although it should be noted that this domain or learning area is taught across many learning areas as shown in Figure 26. The amount of time that learners spend in organised learning activities has a bearing on how much they learn and their subsequent academic performance (MOE 1996;42).

Table 10: Q27- Number of hours spent on social and emotional studies

	0-1 hours	2-3 hours	4-5 hours	6 hours or more	Total	Weighted Average
Weekly	**52.69%** 461	**32.46%** 284	**9.49%** 83	**5.37%** 47	875	1.68
Monthly	**10.87%** 56	**37.48%** 193	**21.94%** 113	**29.71%** 153	515	2.70
Termly	**10.55%** 50	**16.24%** 77	**18.78%** 89	**54.43%** 258	474	3.17
Yearly	**8.95%** 46	**16.34%** 84	**6.42%** 33	**68.29%** 351	514	3.34

10.2.3 Leaner identity. Figure 7- Q28, show that 57.10% of the respondents indicated that they often taught their learners about their identity 37.46% indicated they sometimes taught, and less than 5% indicated that they rarely or never taught their learners about their identity.

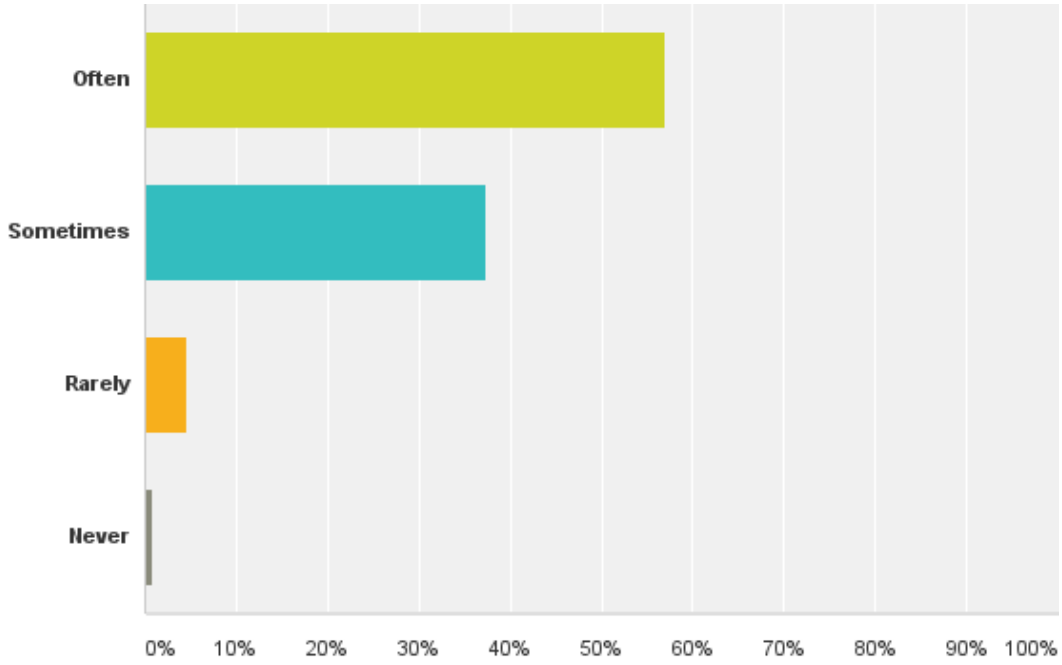

Figure 6: Teaching learners about themselves and their identity

10.2.4 Teaching learners to empathise. Figure 8- Q 29 presents the results on whether learners are taught to empathise with each other. The majority of the respondents (65%) indicated that they often taught learners to empathise with each other. This is cardinal to learners because school is an agency for helping young people form socially acceptable habits and values. They need to learn attitudes through civic, moral, and religious education. However, 32% indicated that they only taught learners to empathise sometimes.

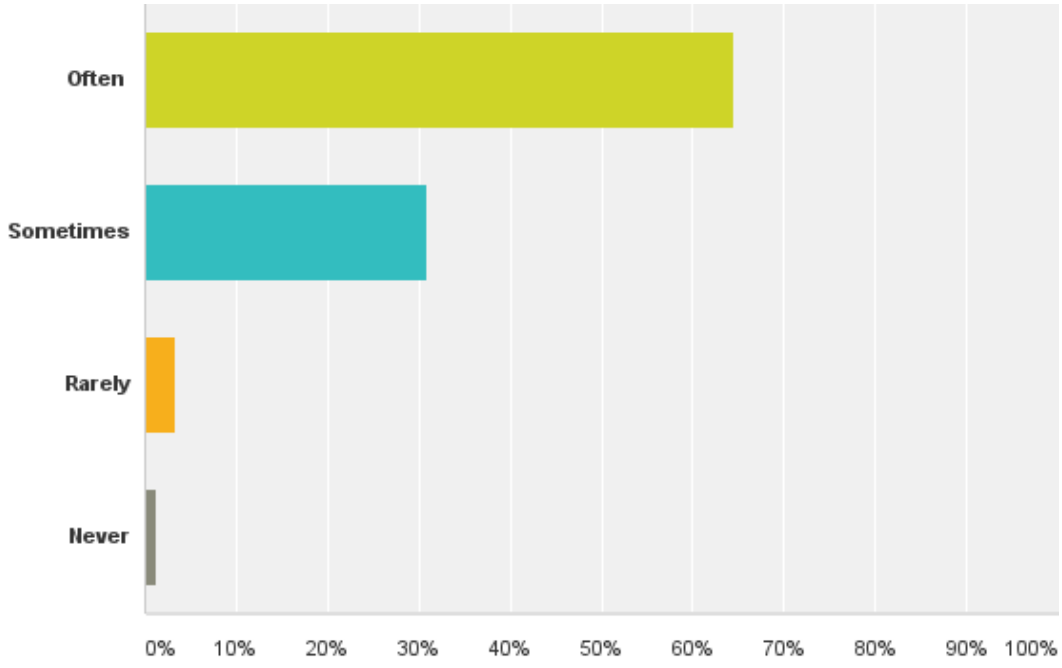

Figure 7: Q-28. Teaching learners to empathise with each other

10.2.5 Sex education. In terms of Sex Education, Figure 9- Q30 shows that it is covered at both lower and upper primary school levels (58.2% of the respondents). This is because young learners frequently experience problems arising from their developing sexuality. The schools have an obligation to help learners to form an enlightened view about sexuality appropriately at each grade level.

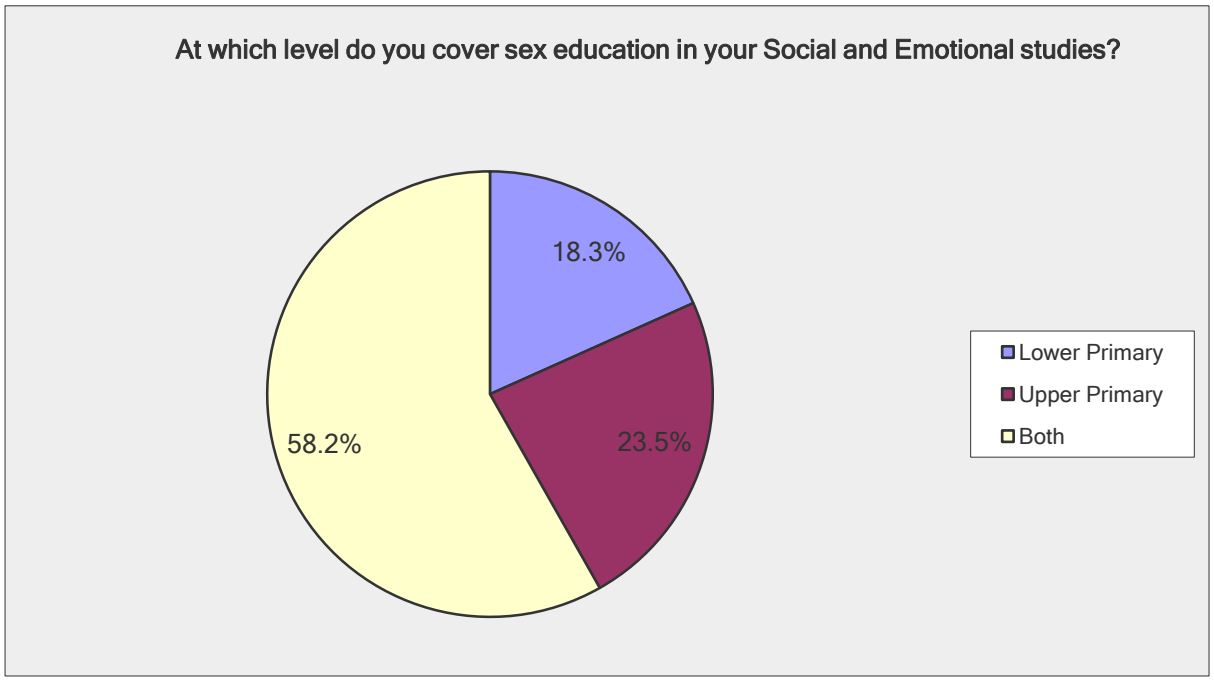

Figure 8: Q30- Level at which sex education is covered in Social studies

10.2.6 Culture and Moral values. The survey further revealed that Culture and Moral values are taught across all learning areas in Zambian primary schools. 63% responses indicated that it was taught in Health and Well-being, Arts (59.33%), Integrated Science (55.03%) and Literacy and Languages (47.17%). See details in Figure 10-Q31.

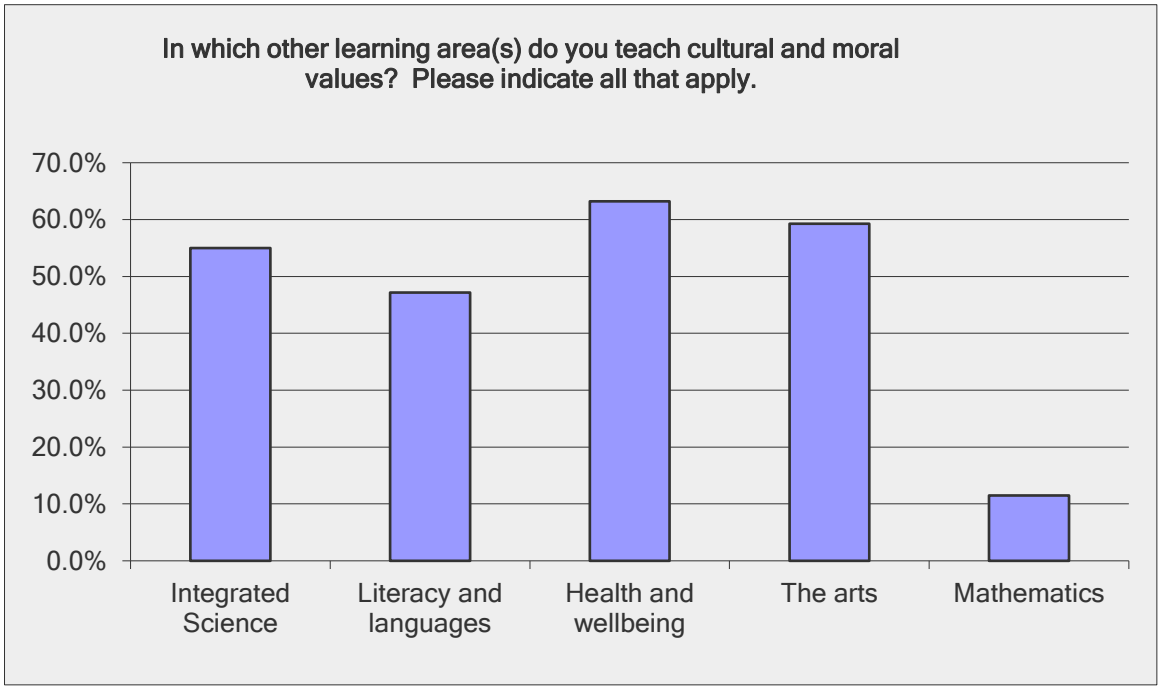

Figure 9: Q31-Other areas in which cultural and moral values are taught

10.2.7 Professional or academic freedom. Figure 11-Q32 presents results on whether the teachers had power to make professional decisions, 87.3% of the respondents indicated that they had the power, and less than 15% indicated they did not have it or were not sure.

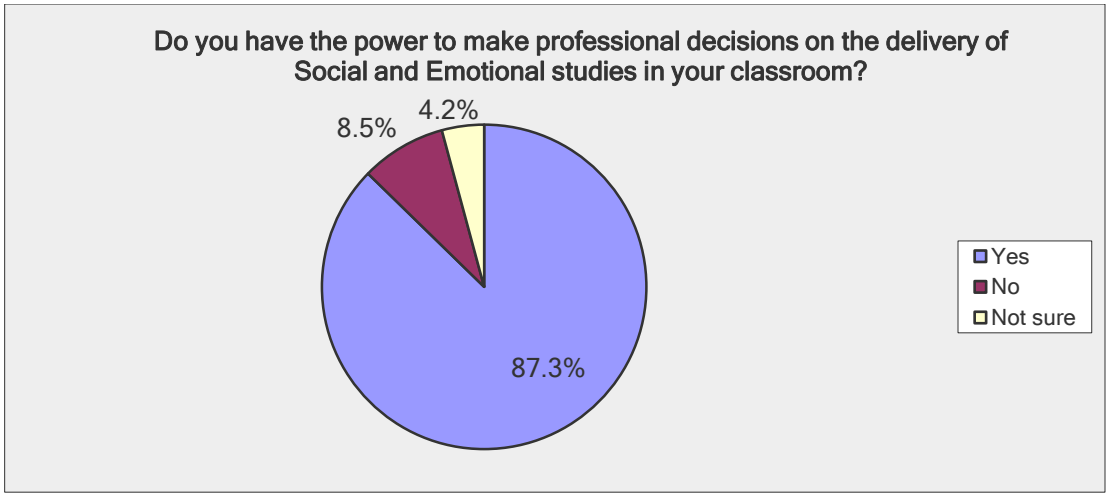

Figure 10: Power to make professional decisions in the teaching of Social and Emotional studies

10.2.8 Teaching and learning materials to support classroom instructions. In terms of Teaching and Learning materials to support classroom instruction for all learners, 54% of the respondents indicated that they were inadequate to support classroom instruction while 15% indicated they had enough for all learners. Figure 33-13 shows how teachers felt about Teaching and Learning Materials.

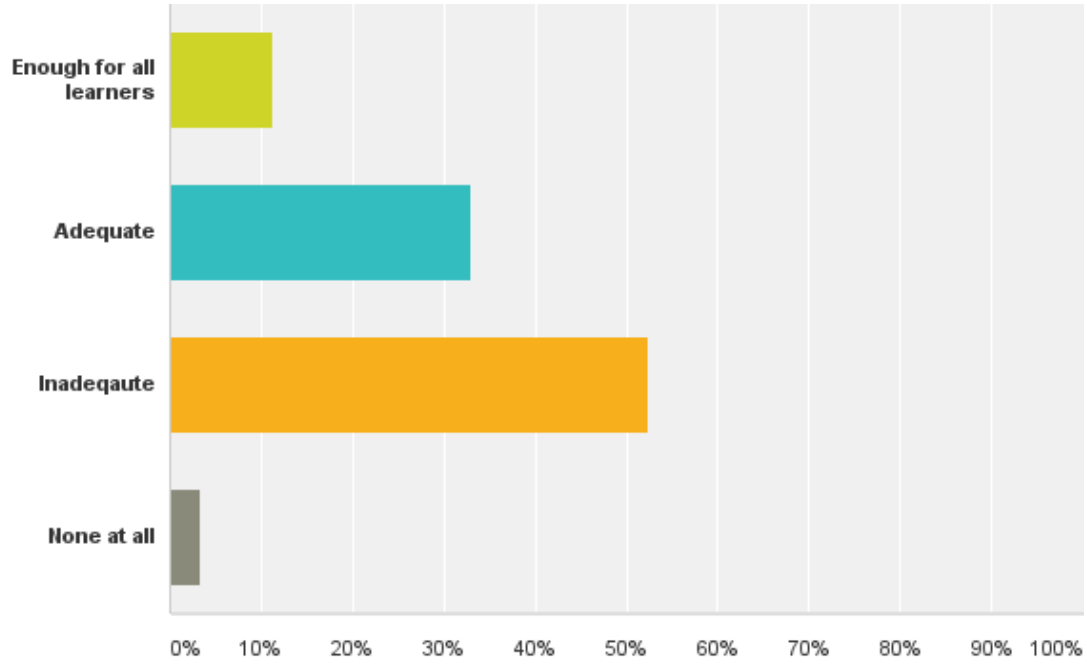

Figure 11: Q33- Availability of teaching and learning materials

10.2.9 School policy on regulating learners. The survey also revealed that most schools had a school policy on regulating the learners. Figure13-Q34 shows that 81.12% of the teachers indicated yes to the question on regulating the Learners and less than 20% indicated no or not sure. The schools have clear external and internal guidelines that regulate the conduct of learners within the schools as part of the developing a responsible citizen and inculcate a sense of belonging among the school community.

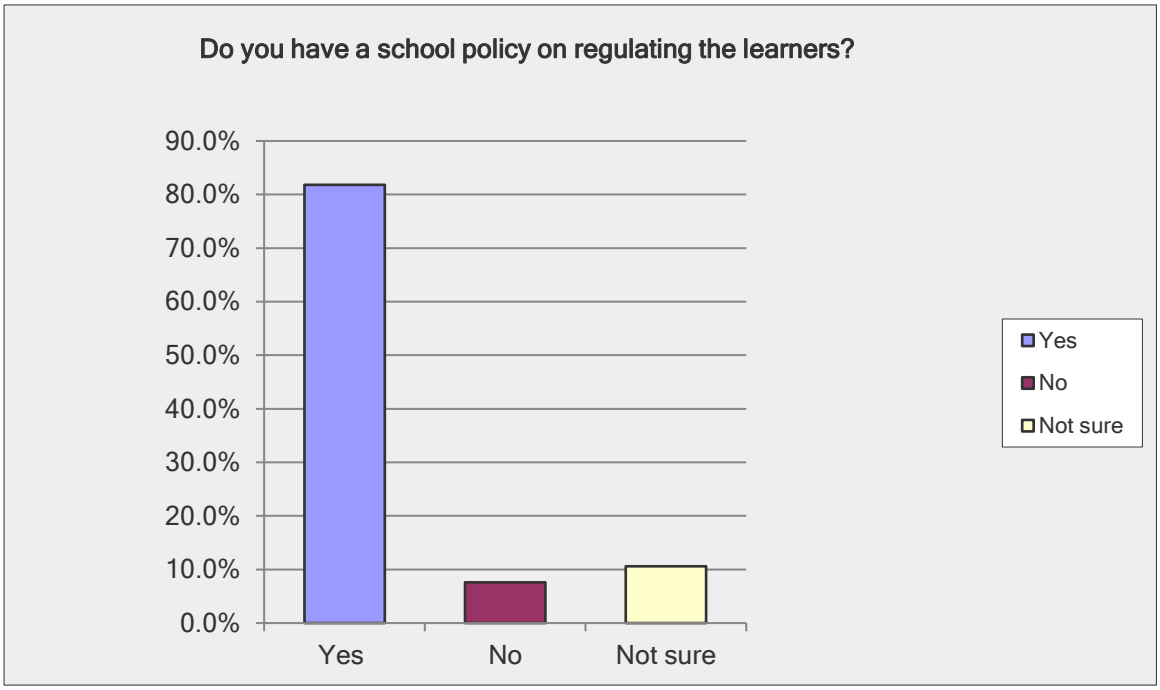

Figure 12: Q34-School policy on regulating the learners

10.2.10 Parental involvement in resolving conflicts. The most important community responsibilities are participating in helping to raise the learning achievement of pupils, increasing the level of access, participation, retention and completion rates, and the school plays its role by preparing the learners to take up their role in society. Figure14- Q35 shows that 54.1% of the respondents indicated that they involved parents in resolving conflicts while 30% indicated that they sometimes involved parents in resolving conflicts in schools.

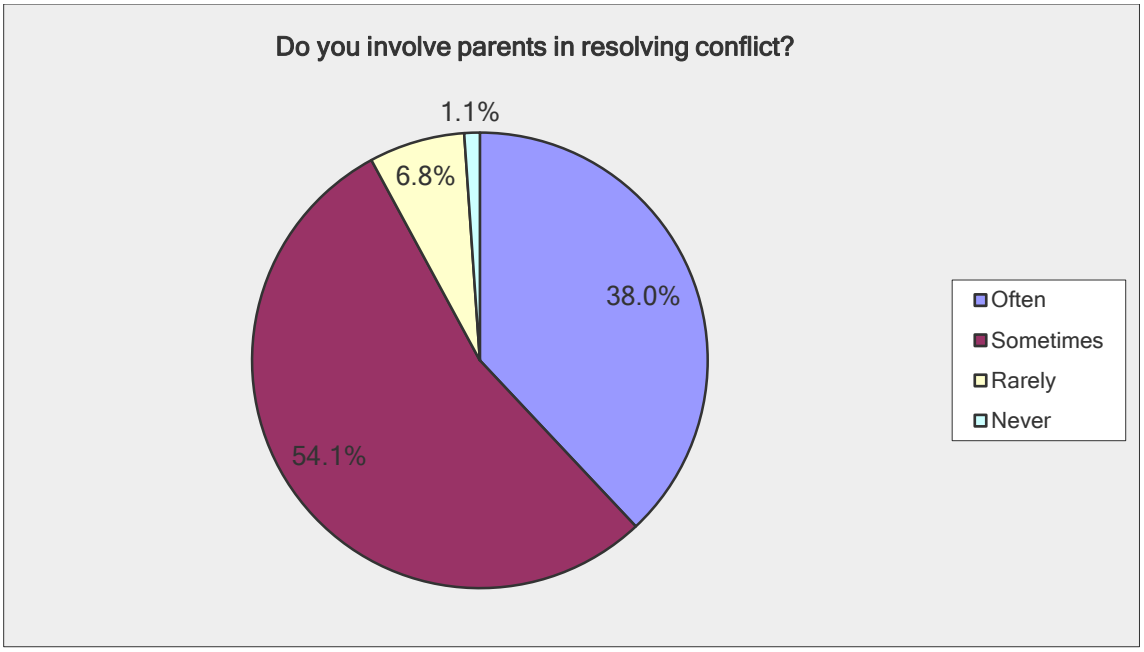

Figure 13: Q35-Involvement of parents in resolving conflicts

10.2.11 Teacher-teacher relations guidelines. Figure15-Q36 show that the majority (73.14%) of teachers indicated that schools had guidelines to manage teacher relationships. Less than 20% were either not sure or indicated that they had no guidelines at all.

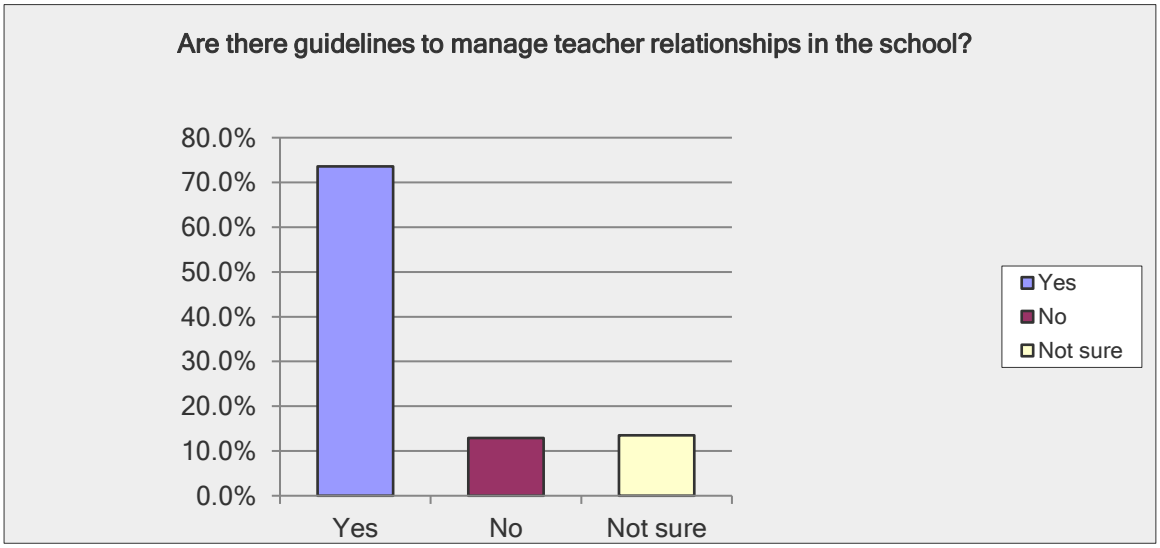

Figure 14: Q36-Guidelines to manage teacher relationships in the school

10.2.12 Teacher-Pupil relationship guidelines. Figure 16- Q37 further revealed that there were guidelines to manage teacher to pupil relationships (80.32%), and 20.02% indicated that they did not or did not know.

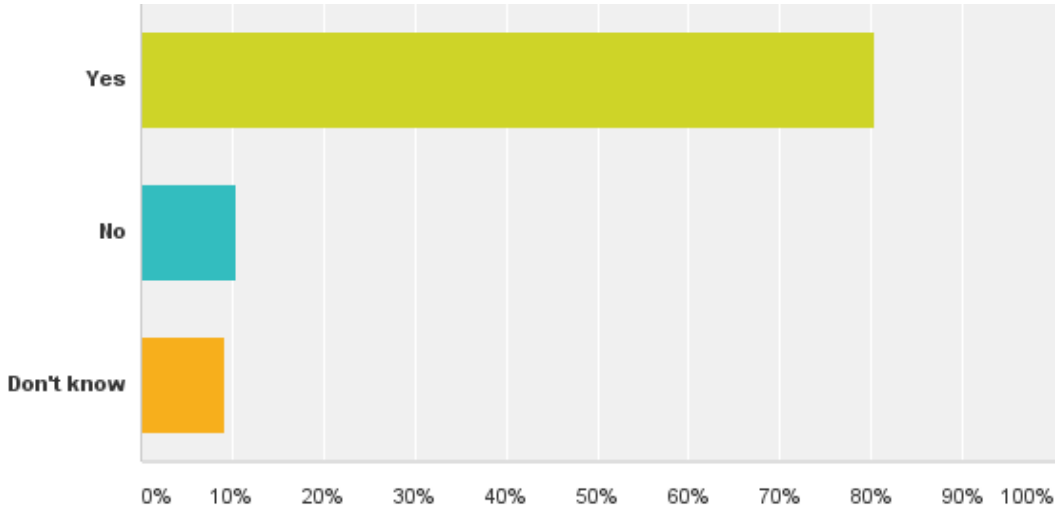

Figure 15: Q37-Guidelines to manage teacher to pupil relationships

10.2.13 Engagement in CPD facilitated by external provider with expertise. On Continuous Professional Development about 36.07% that they have never attended CPDs facilitated by an external provider with expertise in social and emotional studies and less than 25% had been attending weekly as illustrated shown in Figure 17- Q38. Despite the inconsistent there are still many teachers who have never attended CPDs. As indicated earlier on, there is a need to provide CPDs consistently in order to reinforce classroom instruction so as to improve delivery. The survey further revealed that 42.32% of the teachers attend CPD sometimes, and 35.13% attended often. These results indicate that in this subject, teachers do at least have an opportunity in terms of externally facilitated CPDs. See Appendix 10- Q39

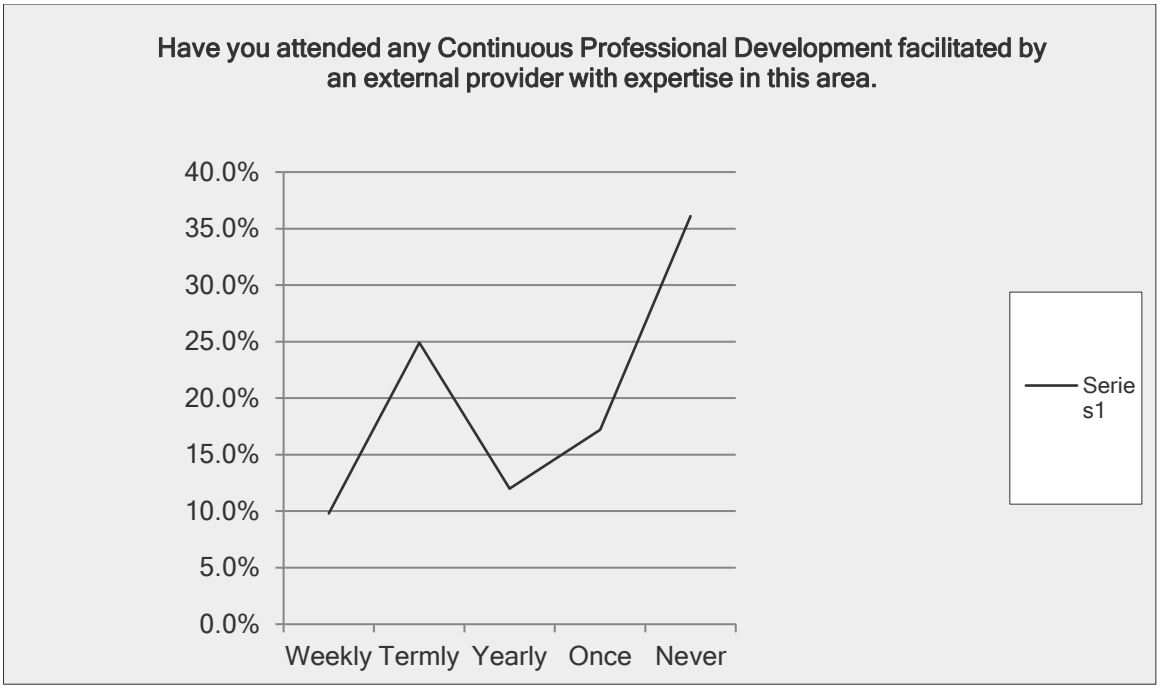

Figure 16: Q38-Continuous Professional Development offered by external service provider

10.2.14 Teacher education curriculum. Figure 19-Q40 shows that the majority (80%) of respondents reported that social and emotional studies were part of the teacher education curriculum. The teacher education programmes for primary school teachers contain study areas that mainly reflect what is taught in schools. Teacher training must train teachers holistically in order to cater to the needs of all learners.

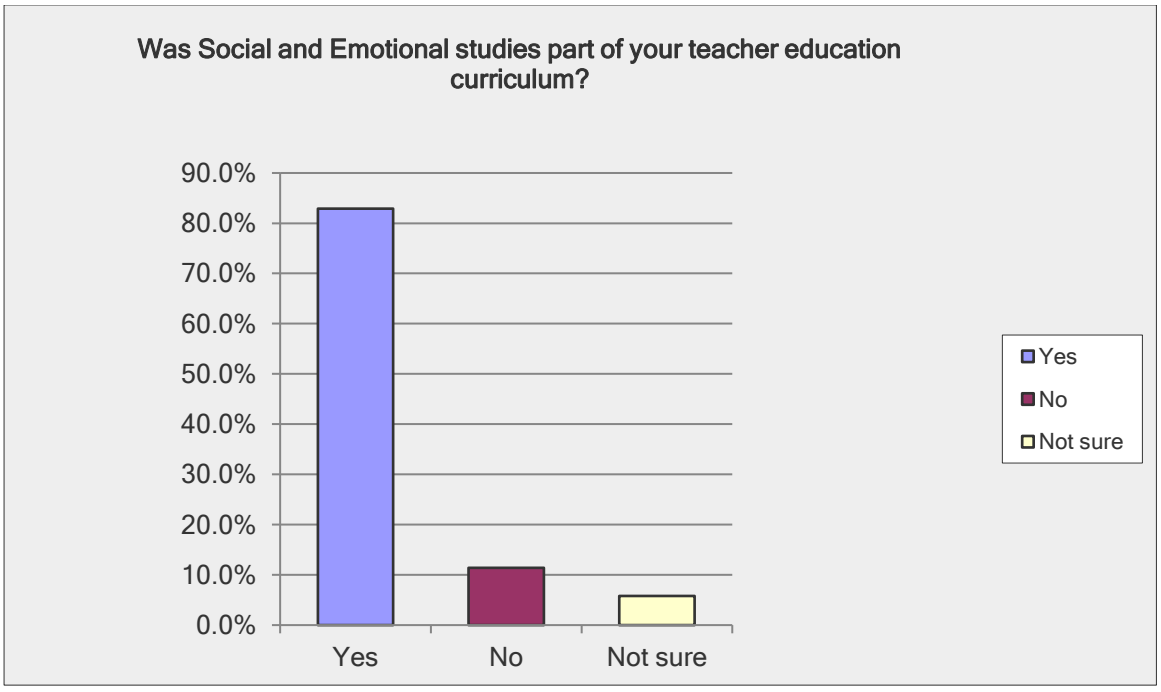

Figure 17: Q40_Social and Emotional Studies being part of teacher education curriculum

10.3 Culture and Arts

10.3.1 Curriculum coverage. Table11-Q41 shows that Culture and Arts are reflected in Music, Drama, Dance, Creative Arts, Media studies, and Poetry. In terms of how much time is spent on each learning area, the majority of the respondents spent less than an hour teaching each of the learning areas in Culture and Arts. The findings further revealed that there are teachers who did not spend any time teaching the following: Media studies (36.72%) and Poetry (27.71%).

Table 11: Q41- Time allocated to component of Culture and Art.

	0 hours	0-1 hour	2-3hours	4-5 hours	6 hours and above	Total	Weighted Average
Music	**16.88%** 142	**68.37%** 575	**12.01%** 101	**2.62%** 22	**0.12%** 1	841	2.01
Drama	**23.35%** 181	**58.84%** 456	**15.48%** 120	**1.81%** 14	**0.52%** 4	775	1.97
Dance or creative movement	**13.86%** 112	**59.41%** 480	**23.39%** 189	**2.72%** 22	**0.62%** 5	808	2.17
Creative Arts	**7.95%** 64	**53.91%** 434	**30.81%** 248	**5.22%** 42	**2.11%** 17	805	2.40
Media Studies	**36.72%** 246	**44.48%** 298	**13.13%** 88	**2.69%** 18	**2.99%** 20	670	1.91
Poetry	**27.71%** 202	**50.89%** 371	**15.09%** 110	**3.43%** 25	**2.88%** 21	729	2.03

10.3.2 Levels at which Culture and Art are taught in school. Appendix 11 -Q42 reveals that 68.35% of the teachers indicated that learners are taught about their culture at both lower and upper primary school level. The study also revealed that 91.11% of the respondents discussed cultural diversity and only a few did not (Appendix 12-Q43). In terms of using culturally reflexive pedagogy for teaching, 49.89% of the teachers indicated that they used them sometimes and 30. 73% said they often used them (see Figure 20- Q44). In Appendix 21-Q45, the majority of the respondents (70.53%) indicated that Culture and Arts are adequately covered in the school curriculum with 29.49% either indicating no or not sure while 33.83% indicated that specific cultural practices, e.g. initiation ceremonies sometimes become a barrier to learning in schools, while 32.20% said they are never a barrier.

10.3.3 Availability of materials and classroom support. In terms of availability of teaching and learning materials, 56% of the respondents indicated that there were inadequate materials to support classroom instruction while less than 40% indicated plenty or adequate as shown in Appendix 21- Q46. Figure 20 -Q47 also show that 49% of the teachers indicated that they involve the local communities to teacher aspects of culture and spirituality whenever the need arises.

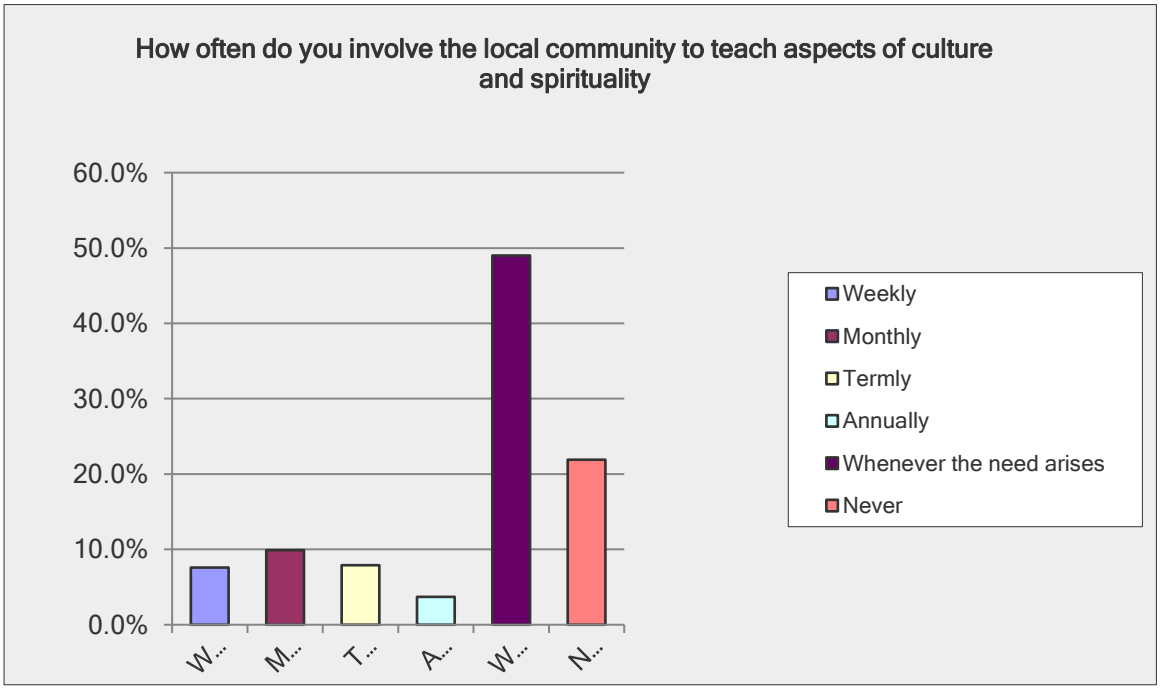

Figure 18: Q47- Involvement of local communities to teach aspects of culture and spirituality

The survey further revealed that 37.9% of the teachers indicated that their schools never participate in traditional ceremonies and 31.2% said they sometimes did, 17.3% rarely and only 13.6% indicated they often participated as shown in Figure 23- 48.

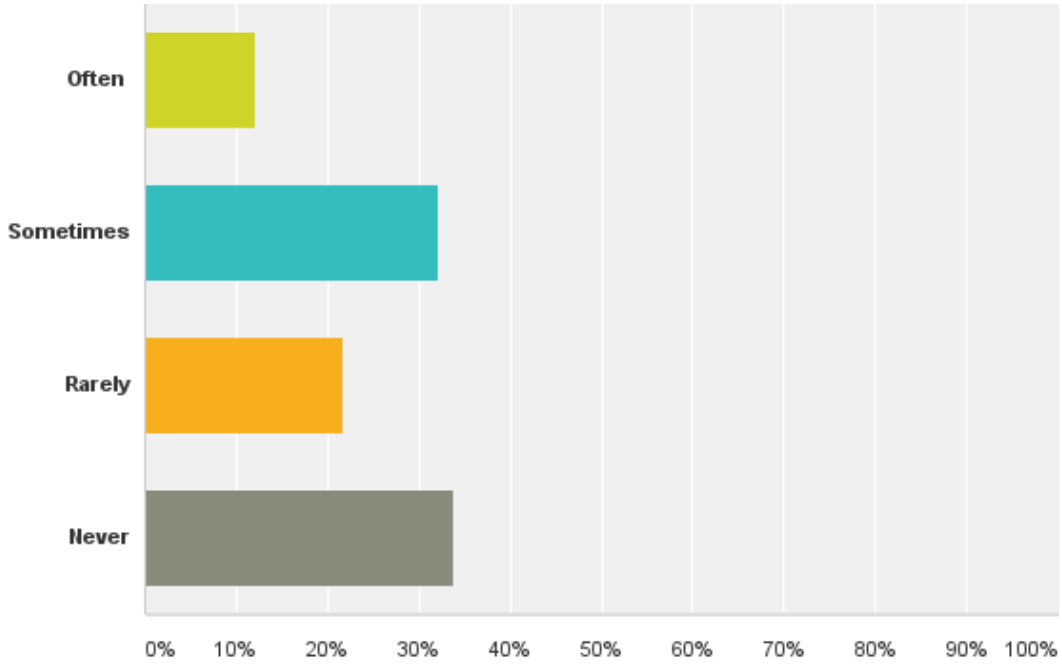

Figure 19: Q49-Participation in traditional ceremonies

Table 12- Q49 shows that 33.8% of the teachers felt that cultural practices such as initiation ceremonies were not a barrier to learning in schools, 32.2% said they were sometimes a barrier, and only 12.2% indicated that such ceremonies were often a barrier.

Table 12: Do specific cultural practices (e.g. initiation ceremonies) become a barrier to learning in your school

Do specific cultural practices (e.g. initiation ceremonies) become a barrier to learning in your school?		
Answer Options	**Response Percent**	**Response Count**
Often	12.2%	115
Sometimes	32.2%	304
Rarely	21.7%	205
Never	33.8%	319

The survey further revealed that the majority of the respondents (86.11%) reported that Culture and Arts were part of the Teacher Education Curriculum (Figure 22-Q50).

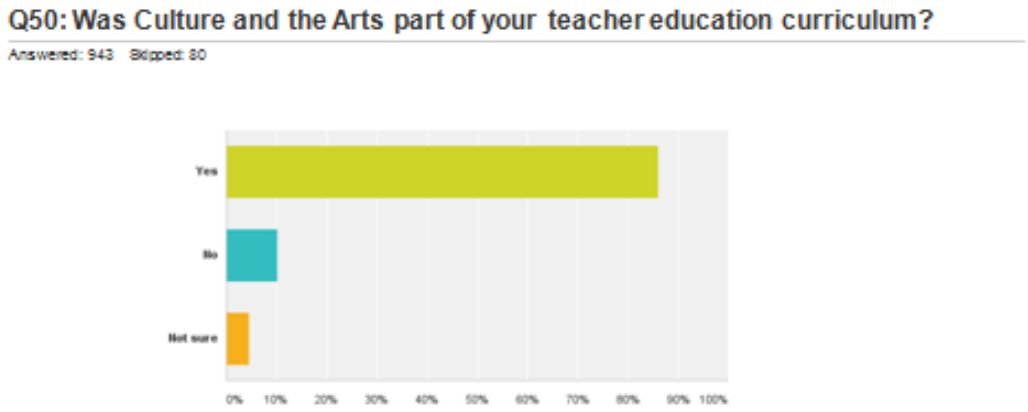

Figure 20: Q50-Culture are Arts as part of teacher education curriculum

In terms of Professional development programmes, Figure 23- Q51 shows that 53.22% of the teachers had never attended the Continuous Professional Development programmes facilitated by an external provider while 14.26% had attended once.

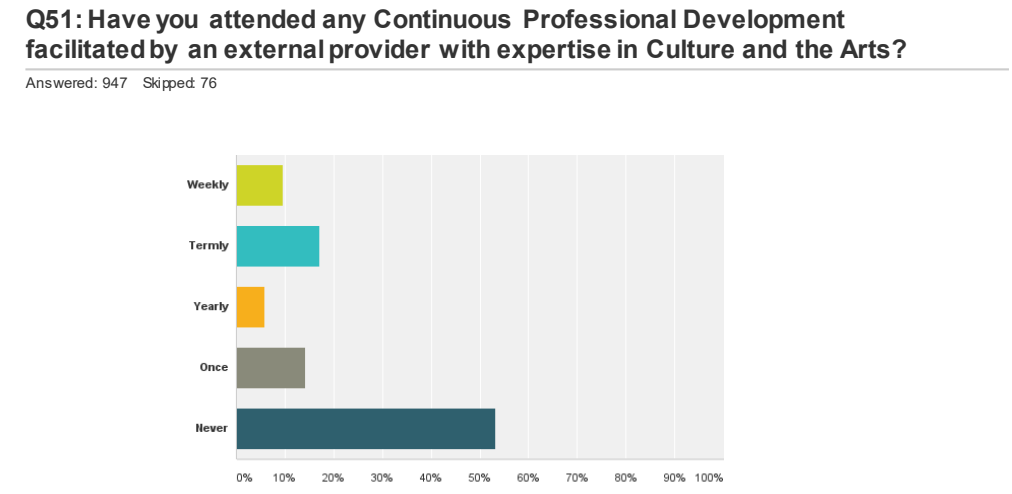

Figure 21: Q51-CPD facilitated by external provider with expertise in Culture and Art

Figure 24-Q52 Shows that 41.58% of the teachers indicated they had sometimes engaged in school-based INSET Continuous Professional Development to support each while 32.84% often engage.

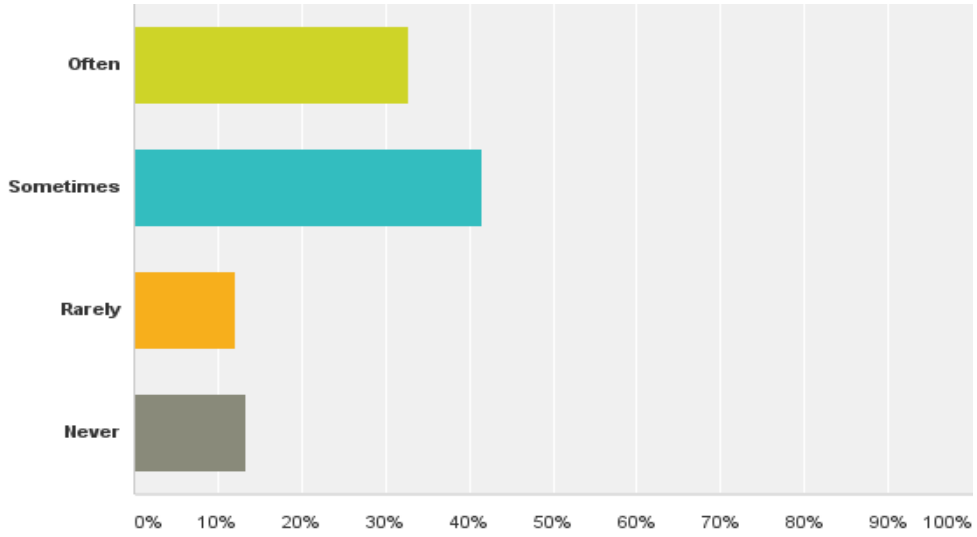

Figure 22: Q52- Engagement in CPD in school based INSET

10.4 Literacy and Communication

10.4.1 Curriculum Coverage and time allocation to each component. The majority of the respondents (82%) indicated that language curriculum was moulded to fit the local culture. (See Figure 26-Q54) and in Appendix 22- Q55, 91.72% of the respondents trained to teach all the subjects in the primary school curriculum. Table 13-Q56, shows the amount of times spent on each component of Literacy and Communication, 42.07% of the respondents indicated that they spent 2-3 hours per week on listening comprehension and 39.30% indicated they spent 2-3 hours per week on Zambian Languages. While 37.55% of the respondents indicated that they spent 4-5 hours on teaching Literacy.

Table 13: Hours per week dedicated to various aspects

	0-1 hour	2-3 hours	4-5 hours	6 and above	Total	Weighted Average
Literacy	**27.73%** 127	**16.59%** 76	**37.55%** 172	**18.12%** 83	458	2.46
Teaching Zambian languages	**24.19%** 104	**39.30%** 169	**31.86%** 137	**4.65%** 20	430	2.17
Listening comprehension	**25.96%** 95	**42.08%** 154	**26.23%** 96	**5.74%** 21	366	2.12
Oratory skills	**33.85%** 87	**35.41%** 91	**18.68%** 48	**12.06%** 31	257	2.09
Learning words	**25.71%** 82	**37.30%** 119	**25.39%** 81	**11.60%** 37	319	2.23

The Survey further show that the majority of the respondents (86.75%) reported that Literacy and Communication studies are adequately covered in the school curriculum. (See Appendix23- Q57). The survey also shows that 86.7% of respondents indicated that they had power to make professional decisions (Appendix 24- Q58). In terms of the availability of media used in teaching Literacy and Communication Figure-25-Q59 reveals that 58.12% of teachers indicated they did not use any of the following media: radio, television, and computers.

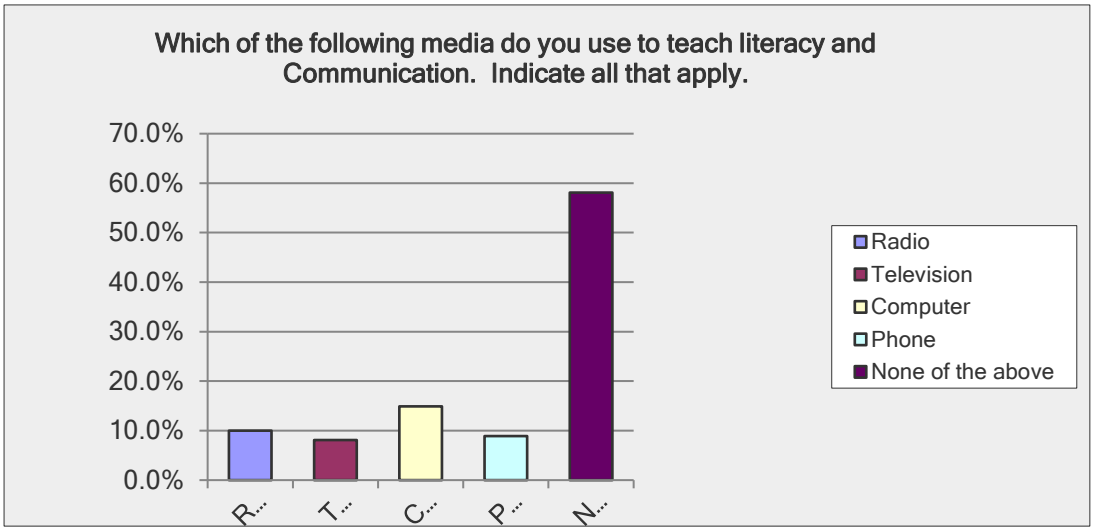

Figure 23: Q59- Media used to teach literacy and communication

10.4.2 Availability of teaching and Learning material and support to classroom instructions. In Figure 26- Q60, the survey further showed that 55.47% of the teachers reported that there were inadequate teaching and learning materials to support classroom instructions while 30.47% indicated that there were adequate teaching and learning materials.

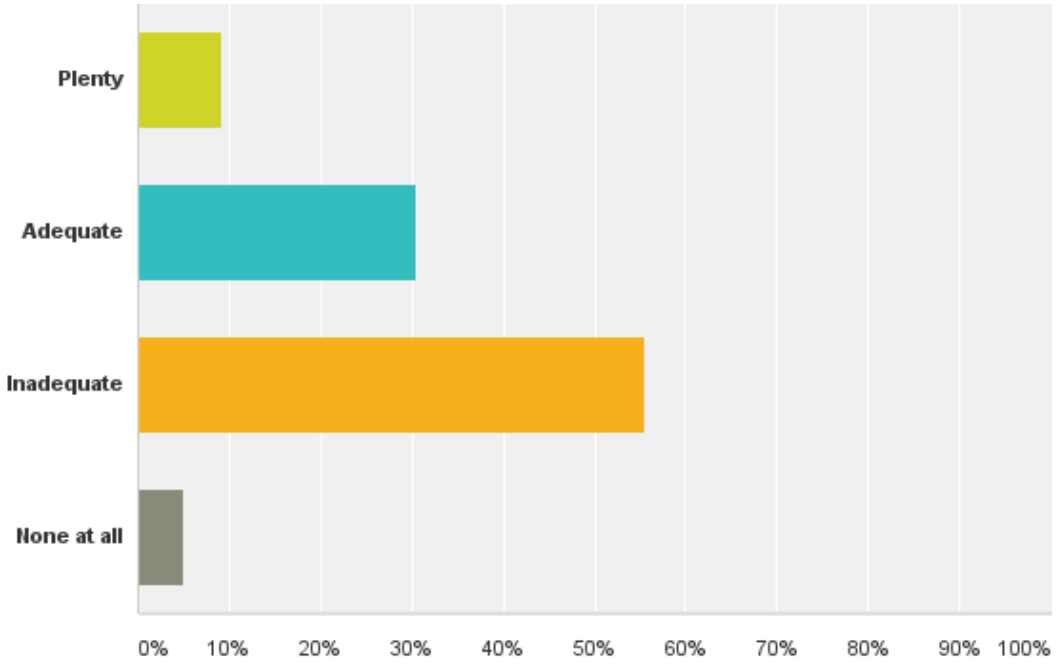

Figure 24: Q60- Availability of teaching and learning material

The majority of the teachers reported that written materials were available in form of books, supplementary readers, teachers' guides, flip charts, and flash cards. (See Appendix 25- 61). In Figure 30, the survey revealed that 49.89% of the teachers often received support from the school administrators and 42.72% only received support sometimes. 90.19% of the teachers reported that Literacy and Communication was part of the teacher education curriculum (Appendix 26- 63).

10.4.3 Professional Support. The survey further showed that 32.26% attended Continuous Professional Development (CPDs) facilitated by external providers termly, 25.21% did so once, and 20.62% had never attended them (see Appendix 27- 64). In terms of School based INSET, Figure 27 shows that 42.61% of the teachers reported to have attended sometimes, and 36.79% reported they attended them often.

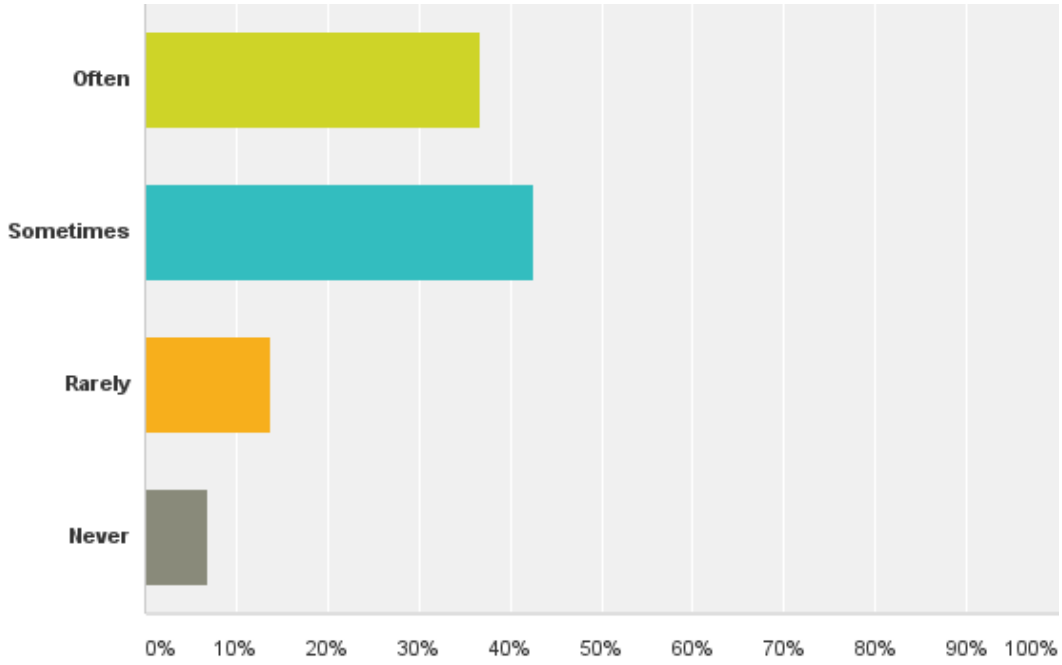

Figure 25: Engagement in school-based INSET as CPD

10.5 Learning Approaches and Cognition

10.5.1 Support to learners. Figure 28 presents the kind of support provided to learners in the surveyed schools. The most common forms of support given to learners were: homework (93.10%) and remedial (92.77%) and revisions work (79.94%), while tuition (25.03%) was the form of support given least often to learners.

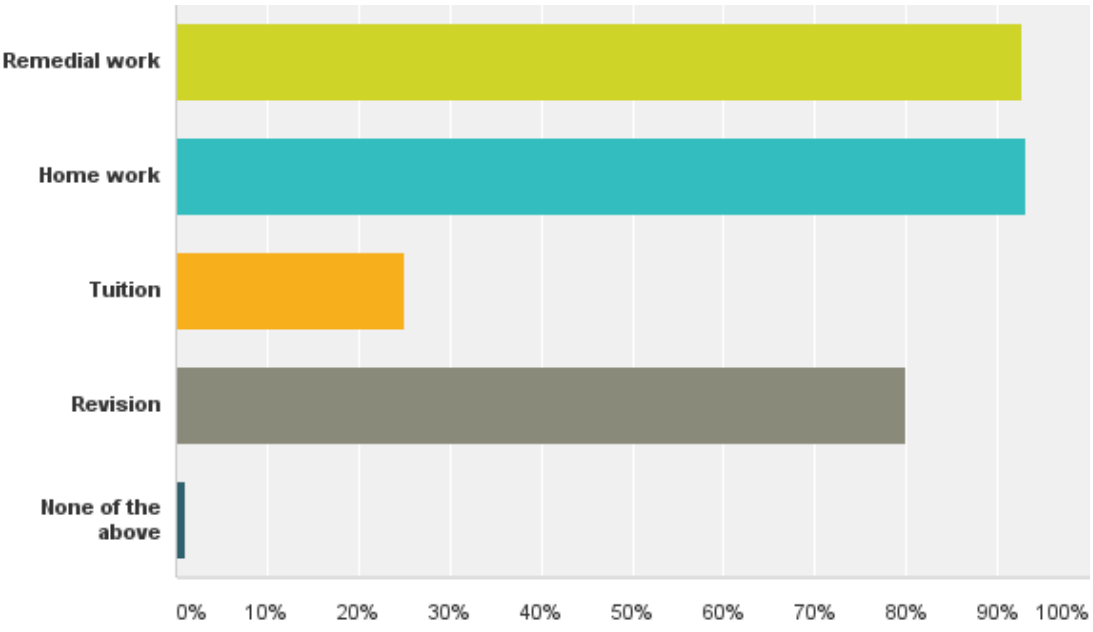

Figure 26: Learner support provided in school

10.5.2 Feedback to learners. In terms of how often teachers gave feedback to the learners, the majority of the teachers (62.69%) indicated that they provided feedback to the learners on a daily basis, and 22.54% of them provided weekly support (Appendix 28- 67). 78.78% of the teachers also reported that they provided differentiated work for learners while 17.19% said they did not provide that (Appendix 29- 68). The survey also showed that 73.41% of the teachers organised learners in group work, 71.46% indicated pair work and 65.95% and complementary individual work, and the least was social groups with 24% of teachers imploring it. Figure 28. reveals that the majority of the respondents (90.45%) reported that learners worked effectively during group work.

Appendix 30- Q71 shows that 63.14% of teachers only sometimes engage learners in the production of learning materials and 18.87% indicated they often engaged learners. In terms of organising subject area clubs, the survey revealed that 53.2% of the teachers indicated that they sometimes organised clubs, 32.12% said that they never organised them, and only 14.68% organised clubs in all the subjects. The survey further shows that 45.88% of teachers indicated that they sometimes use project-based learning to solve problems, while 25.8% said they rarely use projects.

Table 14 shows the activities that teachers consider to be the most effective ways of developing the critical thinking of learners; problem solving ranks the highest in terms of teacher responses with 56.82%, followed by quiz with 42.13%, and games at 42.11%. The majority (60.95%) of the teachers in the survey gave homework daily to the learners while 32.54% gave weekly. Appendix 31- 76 shows that the majority of the teachers (93.43%) indicated that home work had a positive impact on the learners.

Table 14. Top three activities for developing critical thinking

	first choice	second choice	third choice	Total	Weighted Average
Debate	**49.49%** 291	**26.02%** 153	**24.49%** 144	588	1.75
Projects	**30.72%** 145	**31.78%** 150	**37.50%** 177	472	2.07
Problem solving	**56.82%** 404	**26.30%** 187	**16.88%** 120	711	1.60
Field trips	**30.42%** 129	**28.54%** 121	**41.04%** 174	424	2.11
Experiments	**38.09%** 203	**34.71%** 185	**27.20%** 145	533	1.89
Quiz	**42.13%** 249	**36.89%** 218	**20.98%** 124	591	1.79
Games	**42.11%** 216	**24.37%** 125	**33.53%** 172	513	1.91

10.5.3 Professional Decisions. In terms of decision making; 87.61% indicated that they had powers to make professional decisions regarding the delivery on learning approaches and cognitions. Figure 29 reveals that 56.66% of the teacher indicated that they were inadequate teaching and learning materials to support classroom instructions for all learners, while 30.57% said materials were adequate. 11.15% indicated that they had plenty. The survey also showed that 53.17% of the teachers use more formative assessments than summative to diagnose learner's needs in classrooms (See Appendix 32- 79).

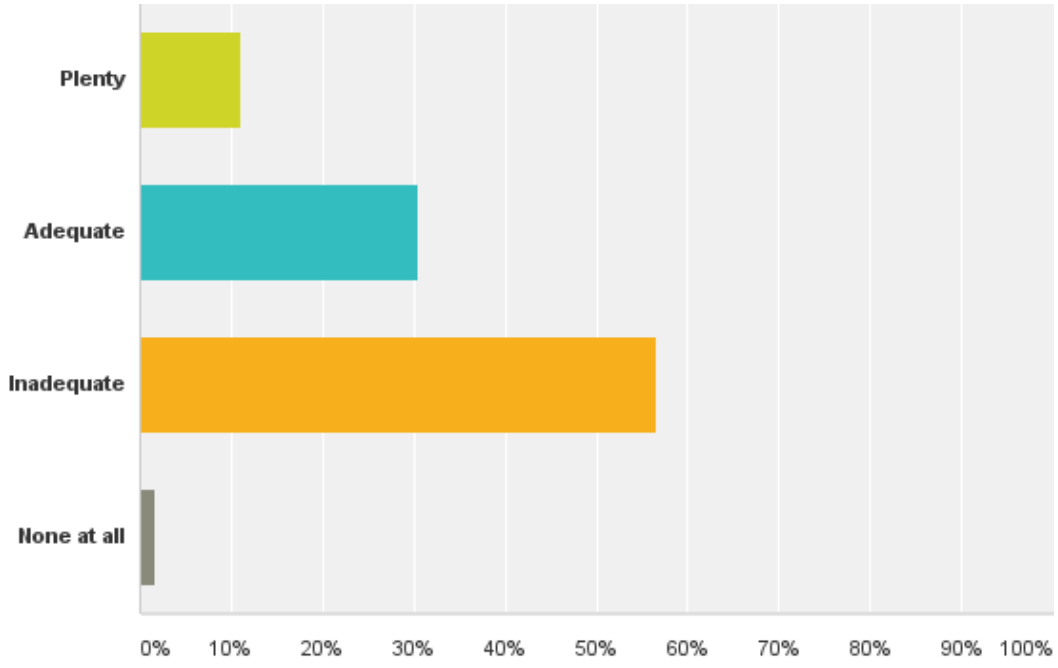

Figure 27: Availability of teaching and learning materials

10.6 Learning Approaches and Cognition

10.6.1. Teacher Education curriculum and Continuous Professional Development.

The survey results showed that Learning Approaches and Cognitions were part of the teacher education curriculum as shown in Appendix 33- 81. The results also showed that 25.25% of teachers have never attended any professional development workshops facilitated by external providers, 27.54% have only attended once, and 22.30% have attended them termly (See Appendix 82). In terms of school based INSET- CPD 44.19% responses indicated they sometimes attended, and 33.77% indicated that they often attended as shown in Figure 30-Q83.

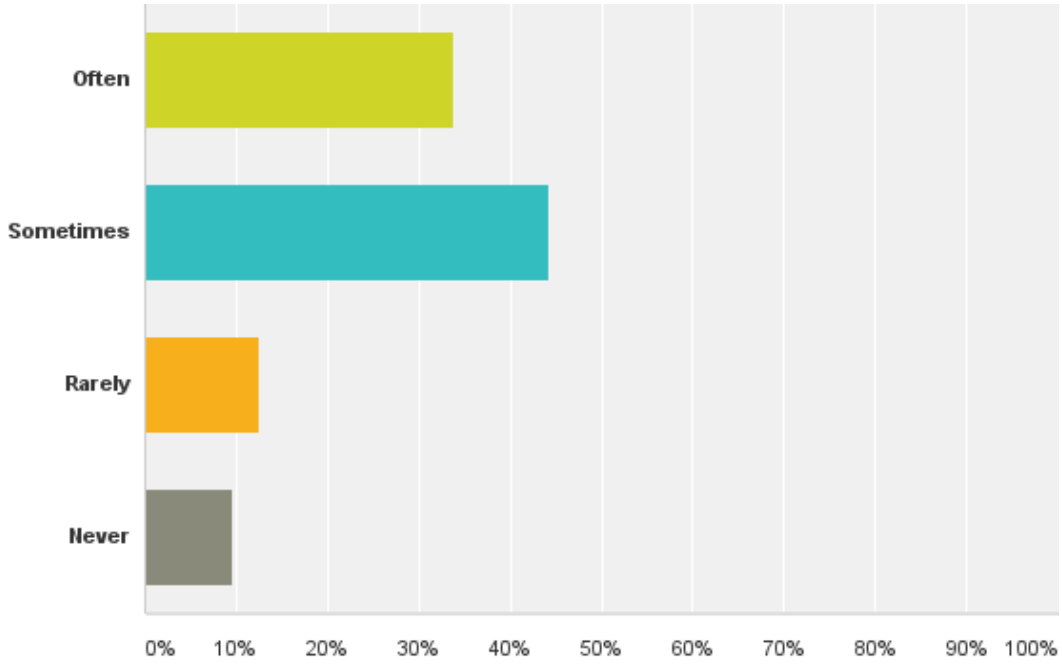

Figure 28: Engagement in school based INSET as CPD

10.7 Numeracy and Mathematics

10.7.1 Curriculum coverage and time allocation. Table 15 shows that 34.3% of teachers indicated that they spent between 4 to 5 hours on Numeracy and Mathematics per week, and 30% indicated they spent between 0- 1hours per week. The majority of the teachers indicated that their learners were able to count at an appropriate level (see appendix 34- 85).

Table 15. Hours spent on Numeracy and Mathematics

Answer Options	Response Percent	Response Count
0-1 hour	30.0%	271
2-3 hours	27.1%	245
4-5 hours	34.3%	310
6 or more	8.6%	78

10.7.2 Components of Numeracy and Mathematics. Table 16. shows that 78.63% of learners are able to count, 46.55% identify shapes and figures, sets (39.61%), add and subtract (44.89%) and multiply and divide (17.53%). The results show that multiplication and division are the most problematic component of numeracy and mathematics for learners.

Table 16: Learners able to recognise and work with elements below

	Majority	Over half	Under half	Very few	None	Total	Weighted Average
Counting	**78.63%** 688	**16.23%** 142	**3.31%** 29	**1.49%** 13	**0.34%** 3	875	1.29
Shapes and figures	**46.55%** 391	**42.38%** 356	**8.10%** 68	**2.38%** 20	**0.60%** 5	840	1.68
Sets	**39.61%** 326	**42.53%** 350	**13.61%** 112	**3.40%** 28	**0.85%** 7	823	1.83
Add and subtract	**44.89%** 373	**39.71%** 330	**10.23%** 85	**5.05%** 42	**0.12%** 1	831	1.76
Multiply and divide	**17.53%** 146	**41.90%** 349	**24.49%** 204	**12.85%** 107	**3.24%** 27	833	2.42

10.7.3. Teaching and Learning Materials and Equipment. Over half of teachers (54.62%) reported that they had inadequate teaching and learning materials available to support classroom instruction, 43.04% indicated they had adequate materials, and 10.01% said they plenty (See Figure 31). In terms of mathematical equipment, 52.05% of the respondents indicated they had inadequate equipment, 28.79% had adequate equipment, 8.53% had plenty, and 10.63% had none at all (See Appendix 35- 88).

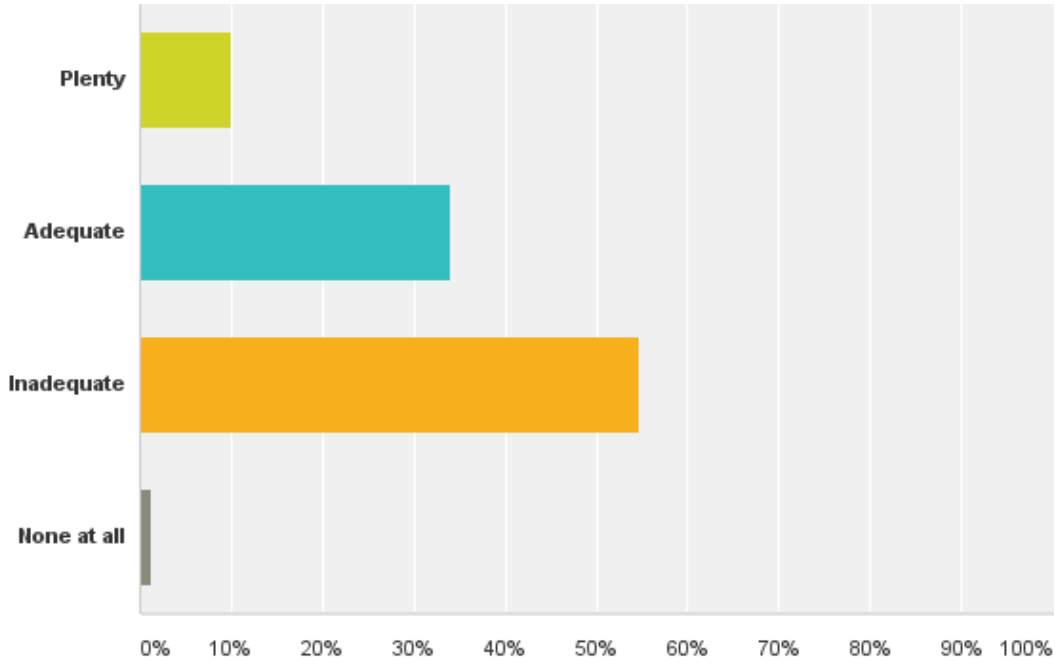

Figure 29: Availability of teaching and learning materials

10.7.4 Support received from administration. The Survey further revealed that 92.24% of teachers received support from the school administration to support learners in numeracy and mathematics (see Appendix 90). The results also show that the 50.98% of the teachers gave homework daily to the learners in Numeracy and Mathematics, while 35.25% did so weekly (see Appendix 91). The majority of teachers in the survey reported that they had the power to make professional decisions on the delivery of Numeracy and mathematics (See Appendix 36-92). 89.33% of the responders indicated that Numeracy and Mathematics were part of the teacher education curriculum (see Appendix 37- 93).

10.7.5 Engagement in CPD facilitated by external provider with expertise in Numeracy and Mathematics. On content knowledge and pedagogy, the survey revealed that the majority of teachers indicated never (32%) as a response, 25% indicated once, and 25% termly as illustrated in Figure 32-Q94.

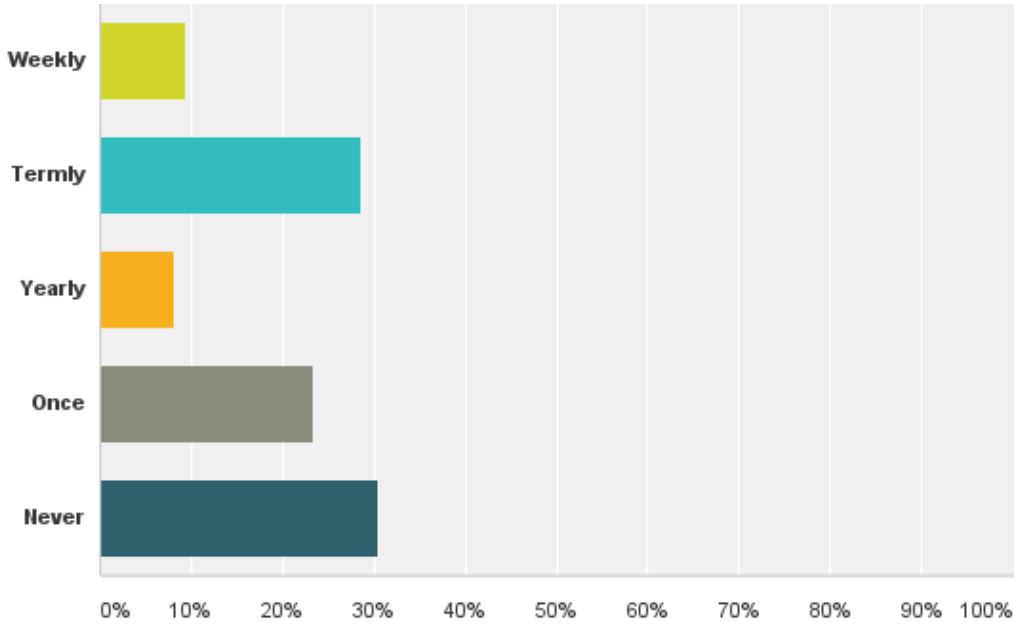

Figure 30: Engagement in CPD facilitated by external provider with expertise in Numeracy and Mathematics

Similarly INSET just like External CPDs are vital in equipping teachers with up to date knowledge and skills in terms of content knowledge and pedagogy. Out of all the respondents 30.52% indicated they had never attended any CPD programmes facilitated by external providers, 28.63% had attended termly, and 23.31% had only attended once (see Appendix 38- 94). 46.43% indicated they had engaged in INSET continuous development programmes only once, and 30.69% indicated they often attended (See figure 33- Q.95).

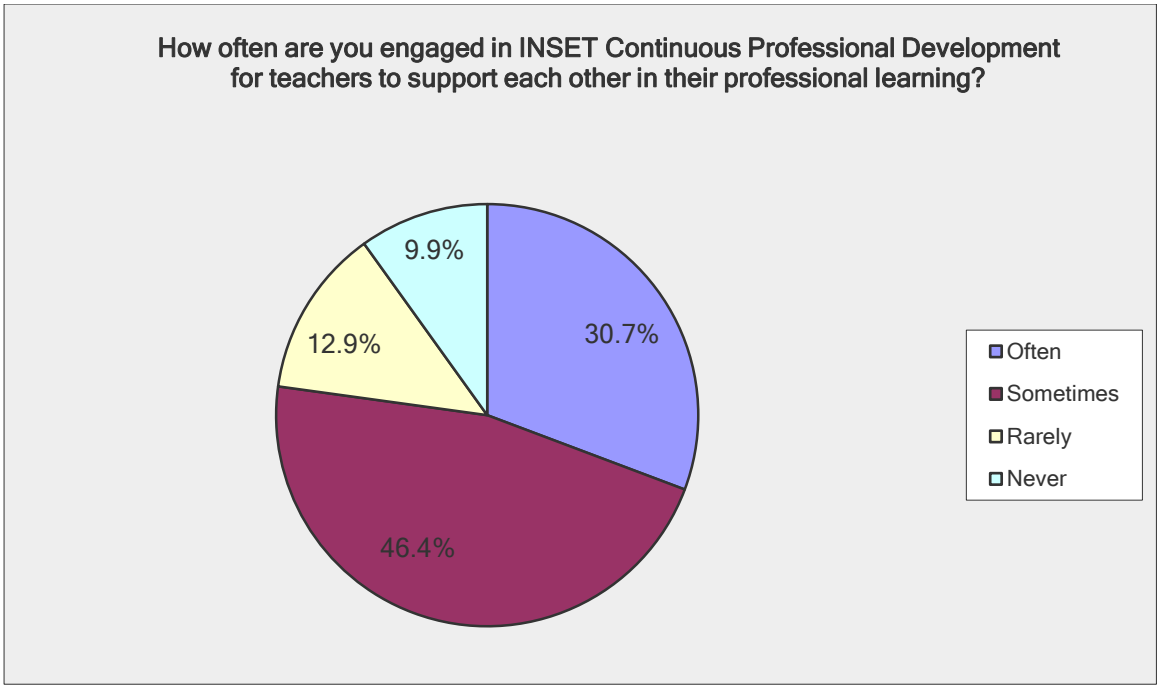

Figure 31: Engagement in school based INSET as CPD

10.8 Science and Technology

10.8.1 Hours spent on teaching per week. The survey reveals that 46.2% of the respondents indicated that they spent 2-3 hours per week on teaching Science and Technology, and 28.3% spent between 4-5 hours on the subject. It is difficult to explain the variances, because school time guides the allocation of time as illustrated in Figure 34.

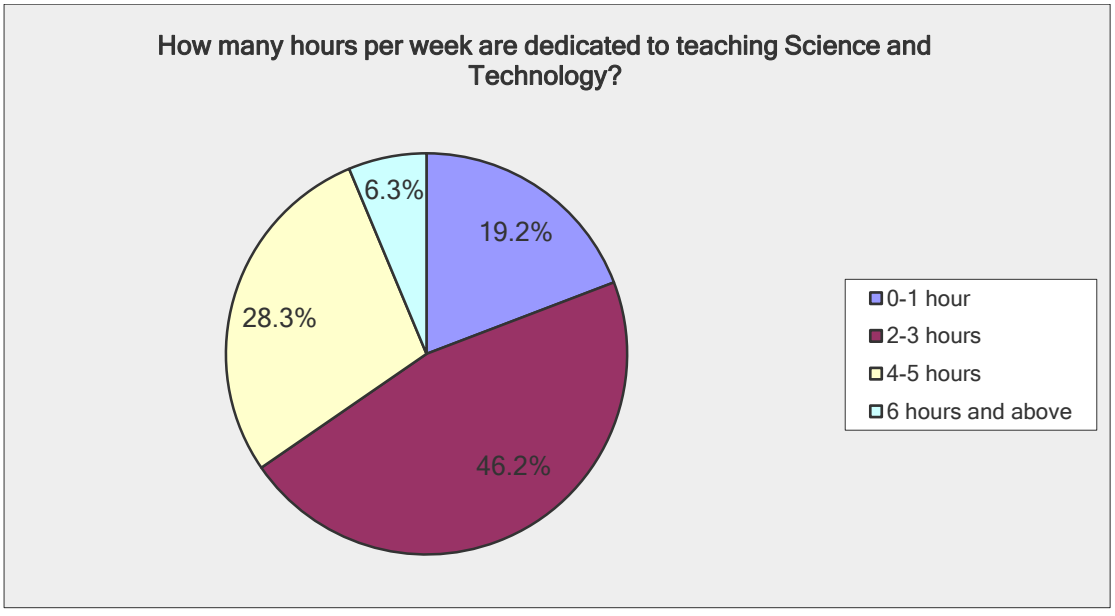

Figure 32: Q96- Hours per week dedicated to teaching Science and Technology

10.8.2 Specialised Rooms. The results show that science labs, music rooms, art rooms and theatre rooms are not readily available in most primary schools. While computer labs (65%), rank highest in terms of availability, yet many respondents have shown that majority of their learners still had no access to computers. Staffroom availability (63%) ranks second, followed by libraries at 48%. Also available in schools are home economics rooms (45%) and science labs (25%). 25% of the respondents indicated that gardens were available as illustrated in Figure 35.

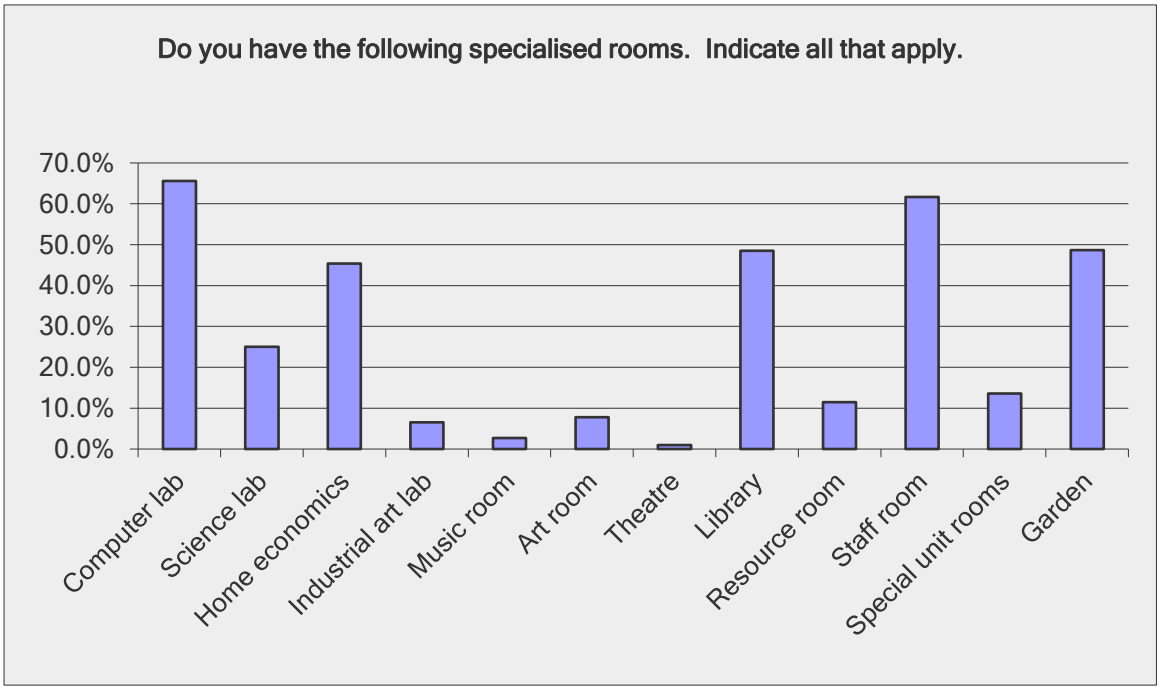

Figure 33: Q97-Availability of specialised room

Information communication is very important in teaching and learning. In this survey the majority of the respondents indicated they only use information technology sometimes, rarely and never as shown in Figure 36. Only 27.8% indicated they often use ICT. This is understood given the related costs associated with ICT in Zambia. Primary schools do not have many resources to develop Information and Communication Technology.

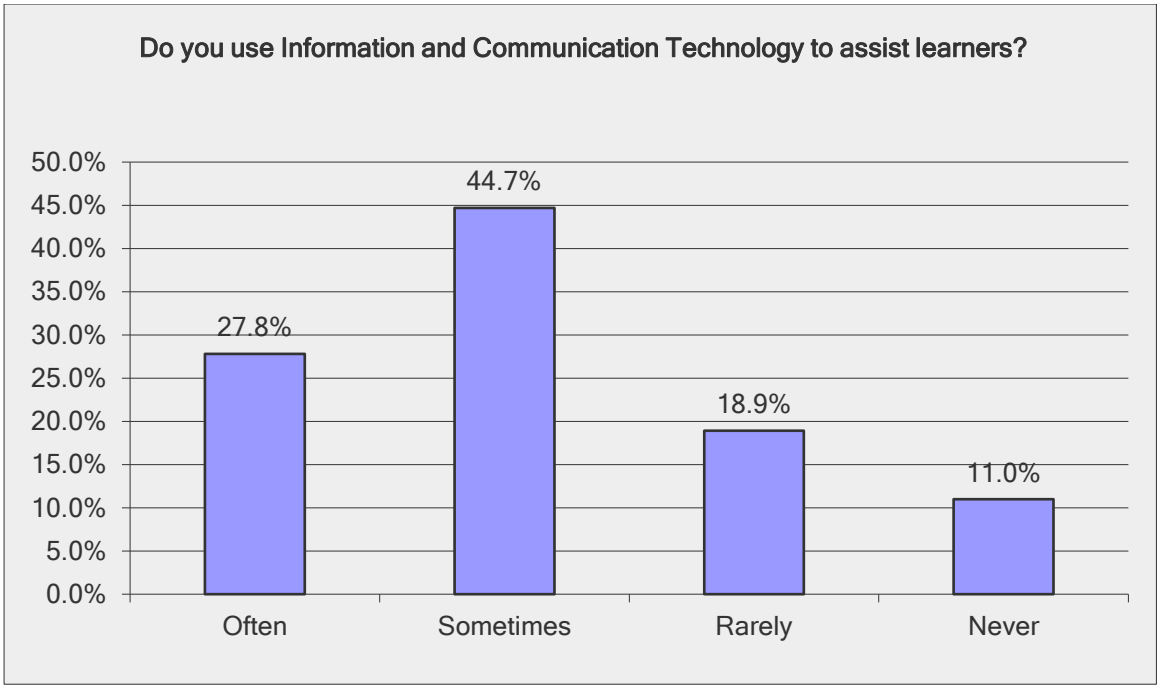

Figure 34: Use of ICT to assist learners

10.8.3 Teaching Resources. Figure 37 presents the information about resources that help the teacher. 94.3% of them indicated that the most available resource is black boards. This is because it the most used teaching aid or resource in most Zambian Primary Schools.

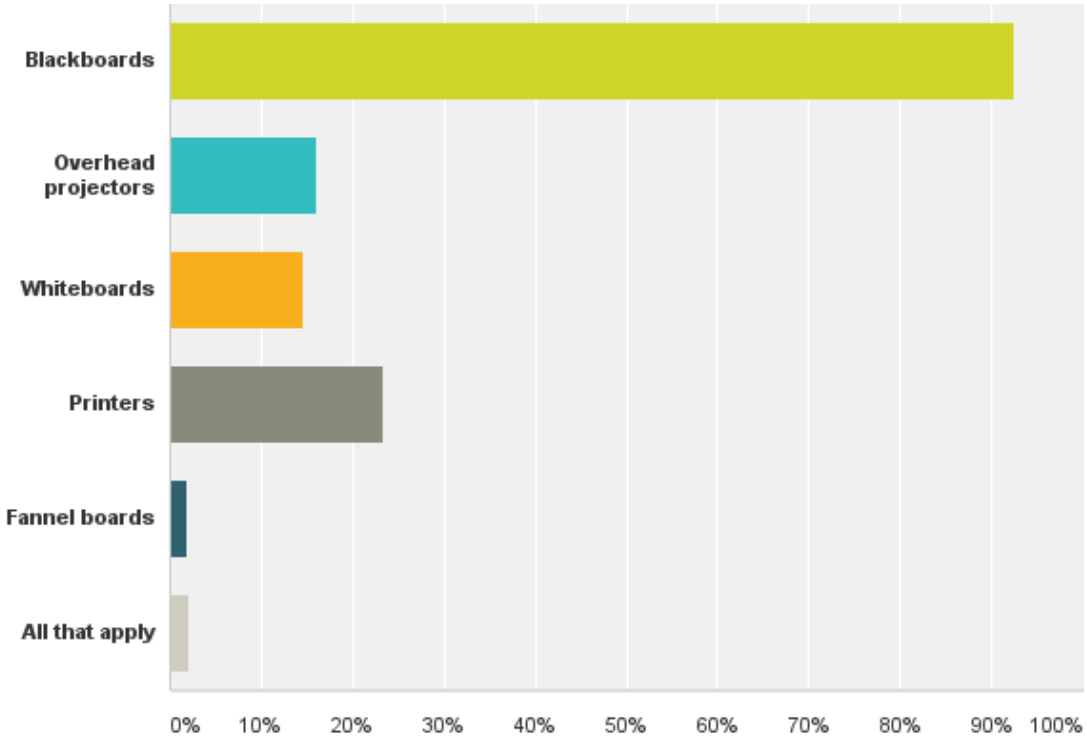

Figure 35: Available of resources

10.8.4 Access to Computers. The survey revealed that more than 60% had indicated their learners had no access to computers. Figure 38 shows the distribution of teachers indicating learners' access to computers.

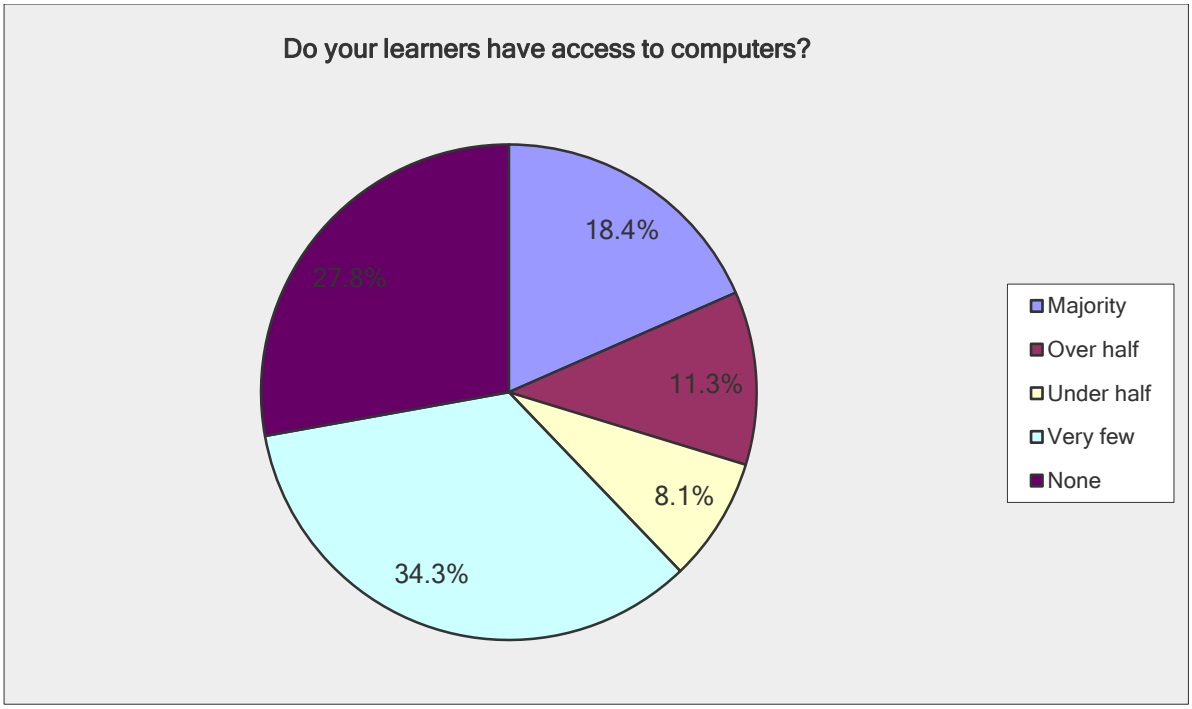

Figure 36: Access to computers by learners

10.8.5 Teaching and Learning materials that support classroom instructions. In terms of adequacy of teaching and learning materials, just like in the previous responses in most learning areas, the survey revealed that 60% of respondents reported inadequate teaching and learning materials to support classroom instruction, while less than 35% indicated they had plenty or adequate materials. Figure 39 illustrates how teachers responded to the question on availability of teaching and learning materials.

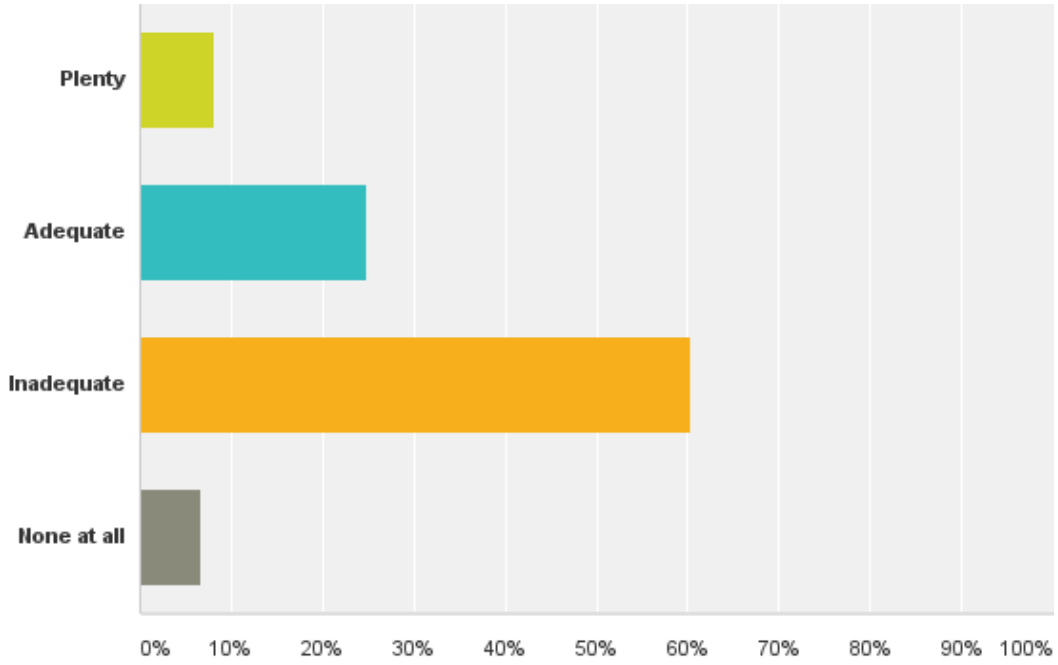

Figure 37: Availability of teaching and learning materials

10.8.6 Administrative support received. Figure 40 presents the results on whether teachers received the required support from the school administration. The findings show that over 80% had received support to deliver Science and Technology lessons. The number of those who did not was negligible

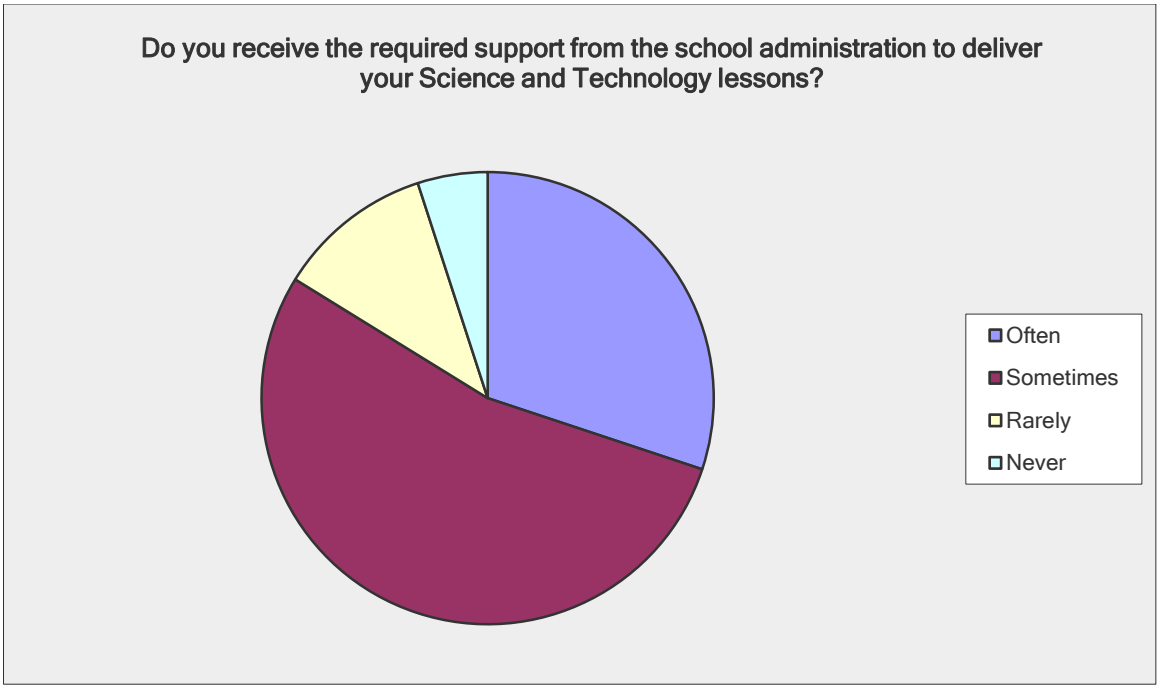

Figure 38: Support received from school administration to deliver Science and Technology lessons

10.8.7 Teacher Education Curriculum. Figure 41 shows that the majority (80%) of the respondents indicated that Science and Technology was part of the teacher education curriculum. This was as expected as primary school teachers are usually trained in all subjects. It is difficult to understand why a few teachers indicated that Science and Technology was not part of their teacher education curriculum. We can only speculate that, they could have been part of the untrained teacher category or part of those that indicated other qualifications in our sample.

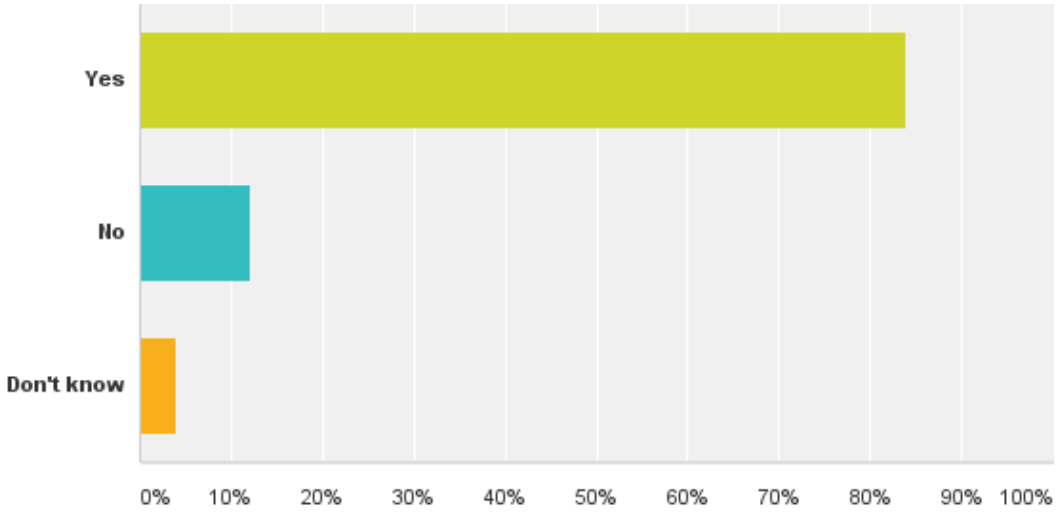

Figure 39: Science and Technology being part of teacher education curriculum

10.8.8 Continuous professional development. Figure 42-Q104 presents results on how often the teachers have engaged in school based Inset Continuous Professional Development to support each other in their professional learning. The survey revealed that about 48% of the respondents attended sometimes and less than 20% attended often. When viewed together with those who rarely and never attended, the results suggest that very few teachers attended CPDs organised internally regularly in this learning area.

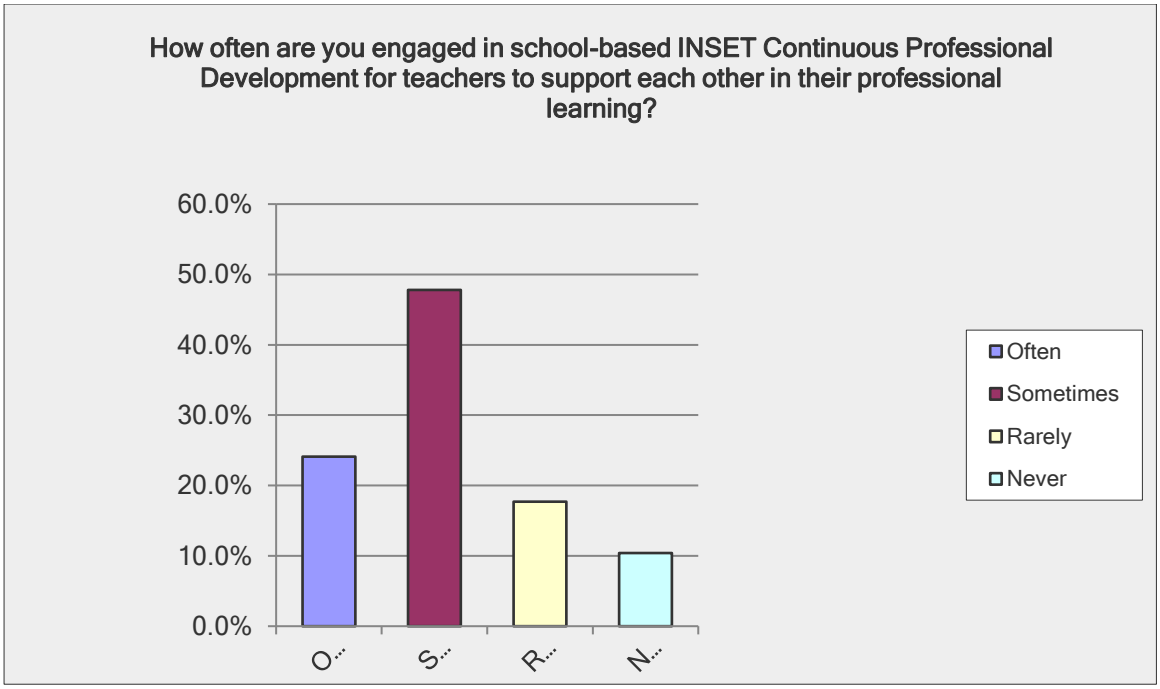

Figure 40: Q104 Engagement in school-based INSET as CPD

According to Figure 43, 44.8% of respondents indicated that they had never attended any professional development programmes facilitated by external providers, and 20.5% indicated they had only attended it once. The survey further showed that 19.2% attended it termly. For the majority of those who attended, they did so termly, however the overall the majority had not attended any at all.

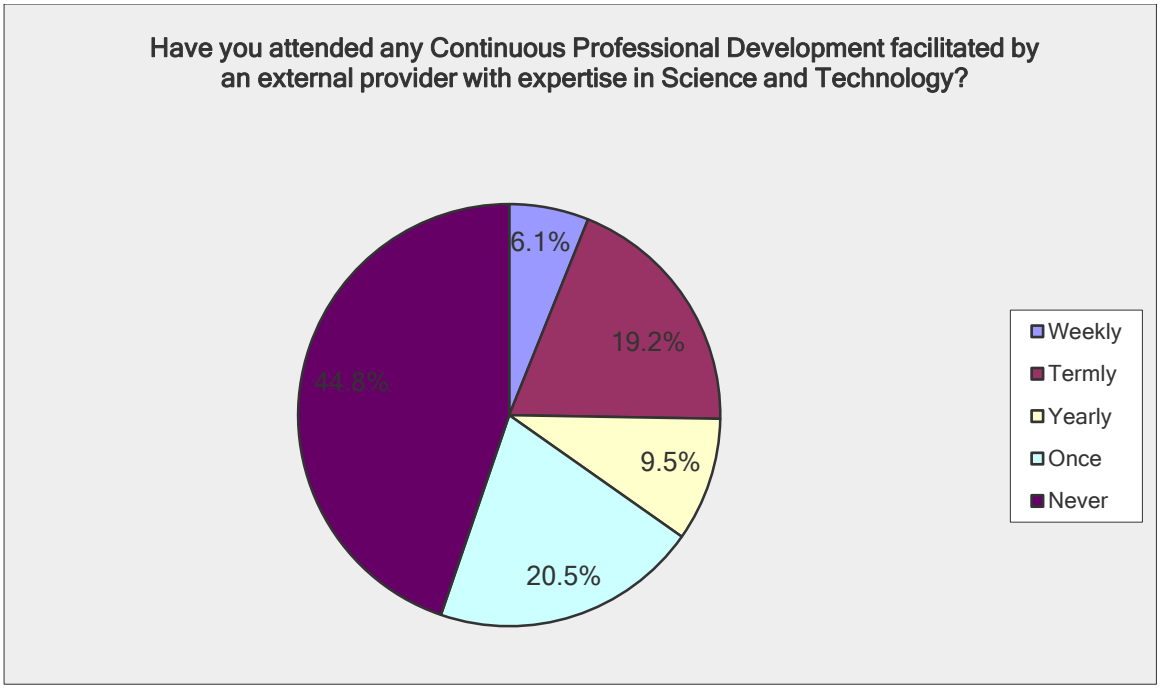

Figure 41: Q105- Engagement in CPD facilitated by external provider with expertise in Science and Technology

11. FINDINGS AND DISCUSSIONS

11.1 Curriculum

The school curriculum is an outline of the content, structure, and processes of teaching and learning which the school provides in accordance with its educational objectives and values. It includes the concepts, knowledge, skills, attitudes, and values that are incorporated into pupils through the process of schooling.

In this survey, seven learning domains are adequately reflected in the different learning areas within the Zambian school curriculum as shown in the result section. At lower primary school level there are five learning areas that integrate several subjects or learning areas. At upper primary level there are seven learning areas that also integrate several subjects. Looking at the distribution of learning areas, the findings suggest that all learning domains are reflected in the Zambia Curriculum. In terms of participation in extra-curricular activities, the findings show that there is limited participation by learners. This lack of participation in extra curriculum maybe attributed to heavy teaching loads and lack of adequate contact time as reflected in the school time table. The study further revealed that many teachers were handling more than one class or grade. The limited participation can also can be attributed to limited sports equipment and facilities for co-curricular activities in most schools.

The schools can help learners develop life skills which equip them with positive social behaviour and help them cope with negative pressures. Co- curricular activities should aim

to develop a set of life skills for promotion of the health and well-being of learners. They include: decision making, problem solving, creative-thinking, critical thinking, effective communication, interpersonal relationships, self-awareness, stress and anxiety management, coping with pressures, self-esteem, and confidence (MOE 1996,43). Extra-curricular activities belong in every school as a socialising agency. Reproductive health and sexuality is taught as a cross cutting issue.

11.2 Class size

In terms of class size, the survey revealed that teacher to pupil ratio was relatively high. The majority of teachers in the survey were handling 51 or more learners in each class. This is contrary to the Ministry of General Education's policy on class size. The recommended class size for primary schools is 45 learners per class.

11.3 Time

The amount of time that learners spend in organised learning activities has a bearing on how much they learn and on their subsequent academic performance (MOE 1996, 42). The findings from this survey indicate that there is more time allocated to teaching Literacy and Languages, Mathematics and Numeracy, and Creative and Technology Studies at lower primary level than is allocated to Social Studies, Integrated Science, and well-being. This is to be expected in most Zambian schools. Teachers focus on core subject that are examinable and they tend to spend more time on these learning areas. The study revealed that in Science and Technology learning area, the majority of the teacher dedicate between to 2 and 3 hours per week and not more than 1 hour of teaching time is dedicated to each component of well-being.

11.4 Continuous Professional Development

Teacher Education is a continuous process that extends throughout an individual's teaching life. The foundation laid during initial training may suffice in the early days of teaching, but may not be sufficient for life. Teachers have the responsibility to themselves, and to their profession to participate in CPD. Since education is dynamic, teachers need to respond the changes, in order to meet the needs and expectations of society in terms of subject content, pedagogical approaches assessments, school administration, and relationships with parents and the community. The survey revealed that the majority of the teachers do not hold degree qualifications. The majority of the teachers in the survey had either a diploma or certificate qualifications. The findings further show that the majority of teachers in this survey have never attended or have only attended a CPD programme once in a year across all learning domains. However, more teachers have attended internally or

In-set than externally organised CPD. Findings also reveal some inconsistency in the frequency of CPDs, many respondents have not been exposed to regular programmes. In terms of decision making, the survey revealed that most teachers make professional decisions in their classrooms and also receive support from the school administrators.

11.5 Teaching and Learning Aids

Despite previous findings from the National Assessment that showed an improvement in the provision of teaching resources in Zambian schools, the findings from this survey show that schools still had inadequate teaching and learning materials across all learning domains. This seriously affects teaching and learning. Teaching and learning materials reinforce and support learning. Studies have shown that teaching and learning materials are a prerequisite to quality classroom instruction. The majority of teachers did not engage their learners with learning materials.

The survey further revealed that the majority of respondents' learners were not exposed to computers. This is so because of non-availability of computers in schools. Computers have a cost implication. However, the government is trying to introduce information technology in all learning institutions, but also taking into consideration other competing areas. The survey also shows that most available resource used in classrooms is the blackboard. The majority of teachers only sometimes use information technology to assist learners. Television was the most used media. This because it is the most wide-spread and affordable information technology available in Zambia.

In terms of learner support, the survey revealed that homework and remedial work are the most popular support activities used, followed by revision and tuition. Homework is mostly used to reinforce what has been learned in class, while remedial work is used mostly to support slow learners and children with special needs. The majority of teachers believed that homework makes a positive impact on the learner. The majority of teachers indicated that they gave feedback to the learners and that differentiated work is provided for learners. Individuals, pair work, group work and mixed groups are the most often used strategies or methods to organise learners in the classroom. The survey further revealed that learners seem to work effectively in groups. The survey also shows that formative assessments are the most preferred mode of assessment, and they are done on daily basis.

On the health of learners, most schools invited medical personnel in their schools. However, from the results it be can concluded that there is no clear policy on the health of the learners in schools. As an essential part of effective learning a child who comes to school healthy is ready to learn. Research has shown that good school facilitates, abundant teaching and learning materials, and high-quality teaching cannot in themselves translate into intended learning if learners are unwell. In addition, schools must be concerned about

the health of their learners, not only because it is good for their learners, but also because learners are good ambassadors for health messages to the community. Similarly, the survey also shows that learners are not benefitting from the school nutrition programmes even though government policy on school nutrition and feeding programmes are very clear.

The survey further revealed that most primary schools lacked library facilities. Libraries in Zambia are a rare resource at both institutional and community levels even though it appears to be an indispensable resource that establishes an environment for continued learning. Despite the absence of the physical buildings, the Ministry of General Education have recently distributed small book collections to some government primary schools.

The findings also show that most schools despite having the core rooms, lacked specialised rooms such as science labs, music rooms, industrial arts lab, art room, resource rooms, and special unit rooms.

Subject Clubs are an important component to ensure continued learning outside the school time-table. The survey revealed that the majority of teachers only organise clubs in some subjects. Some teachers indicated that they had never organised clubs. In terms of project based learning, the majority of teachers organised project based learning sometimes to solve new problems. The survey results further show that critical thinking can be developed mainly through problem solving, debate, quiz, and games.

The findings also reveal that most schools had school policies that regulate learners, teacher relationships, and learner-teacher relations. In terms of community involvement, the findings show that schools only involved parents sometimes and when it was needed. The absence of School Road Safety programmes is also a serious omission that needs to be addressed as such programmes are either inactive or completely absent in most schools. In terms of critical thinking, the survey establishes that problem-solving is the most popularly used technique.

12. CONCLUSION

The main goal of the survey was to investigate the breadth of learning opportunities available in Zambian Primary Schools. The survey looked at the available resources to support learning in terms of curriculum coverage, teaching and learning materials, the built environment, assessments, school administration support, learning approaches and cognitions, learners support, and teacher development.

The findings revealed that the Zambian school curriculum covers all learning domains that help develop the breadth of learning skills. Almost all key learning areas in the Zambia Curriculum are covered in the seven Learning Domains. However, some of the learning areas are taught as cross-cutting issues.

The survey also revealed a number of gaps that could hinder the systematic and holistic development of knowledge and skills in learners, such as inadequate teaching and learning materials and equipment to cater for all learners and support classroom instruction across all learning areas/domains. Despite the availability of sports grounds and football fields, most schools lack sports equipment to support the well-being of learners.
Teacher-Learner contact time is another shortcoming which has been identified by this survey. The school timetable does not seem to allow space for additional learning. Learners are spending less time in learning domains, particularly at lower primary level.
Provision of Continuous Professional Development Programs, both inset and externally facilitated, are not benefitting the majority of teachers. Teachers knowledge need to be continuously updated and upgraded with new knowledge, both content and pedagogical, to help them deliver knowledge to the learners as outlined in the policy document Educating Our Future (MOE, 1996).

Class sizes are another challenge which has been identified by the survey. Overcrowded classrooms deny learners individual attention from the teacher thereby also denying learners individualised help.

Additionally, there is inadequate teaching and learning equipment or materials to support classroom instructions across all learning areas. Children learn better if learning is supported by concrete situations. Teaching and learning materials motivate young learners.

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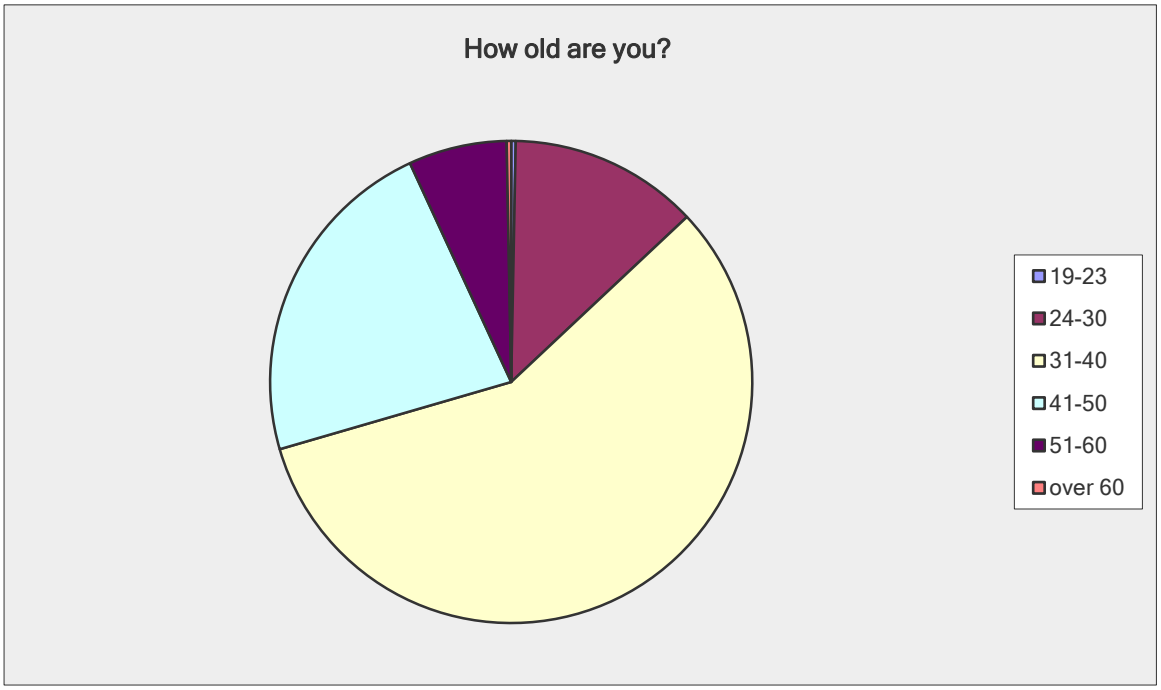
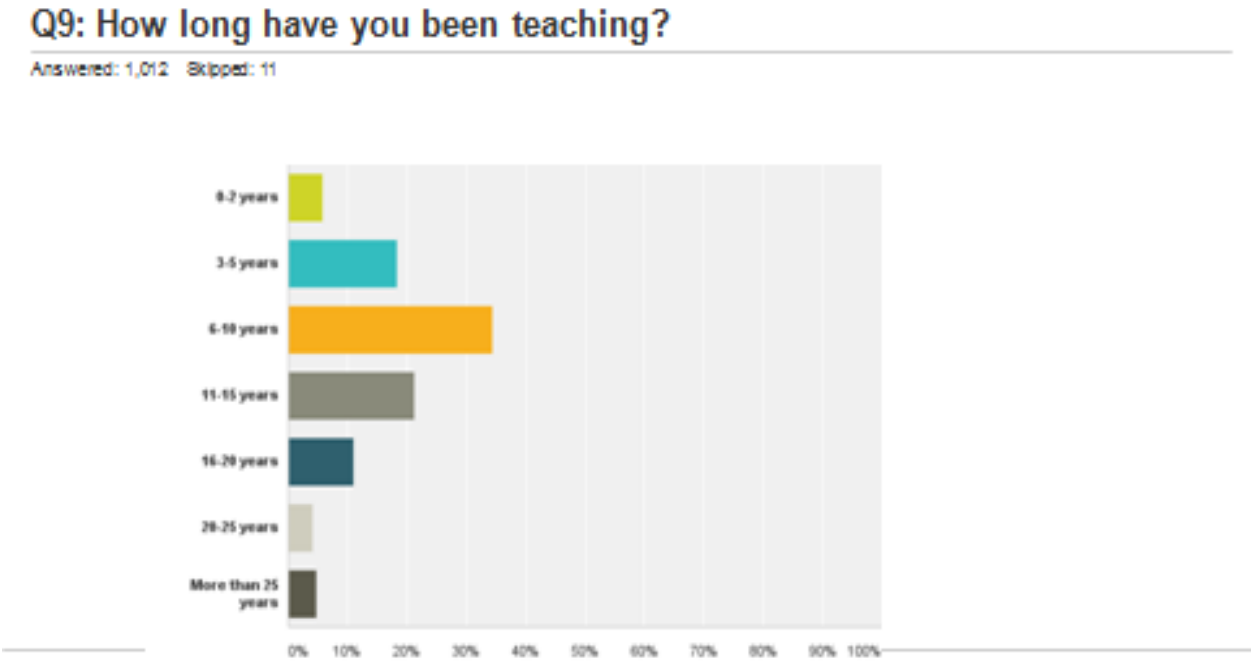
14. APPENDICES

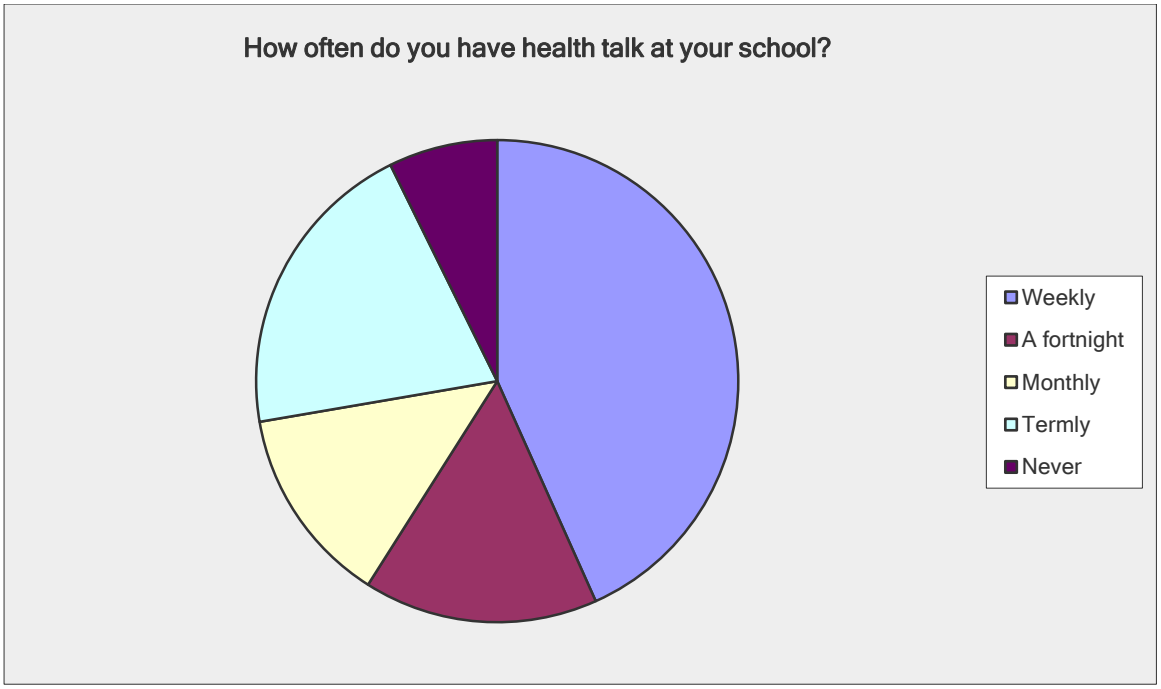
Appendix 1-Q5. How old are you?



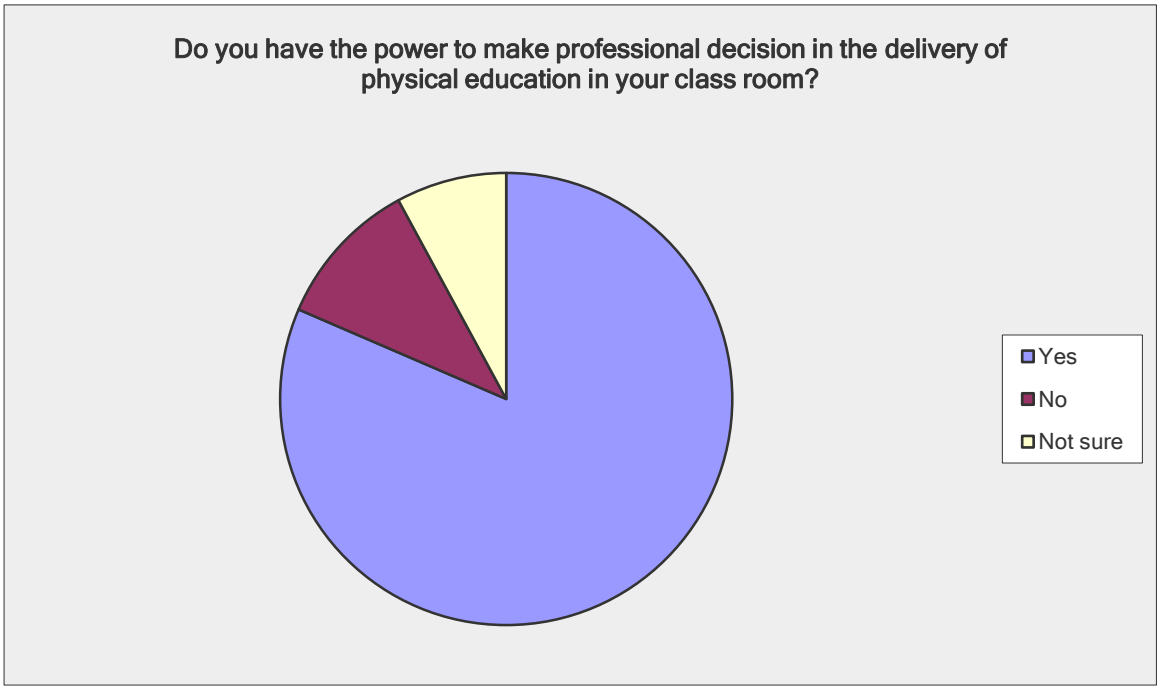
Appendix 2- Q 9. How long have you been teaching?



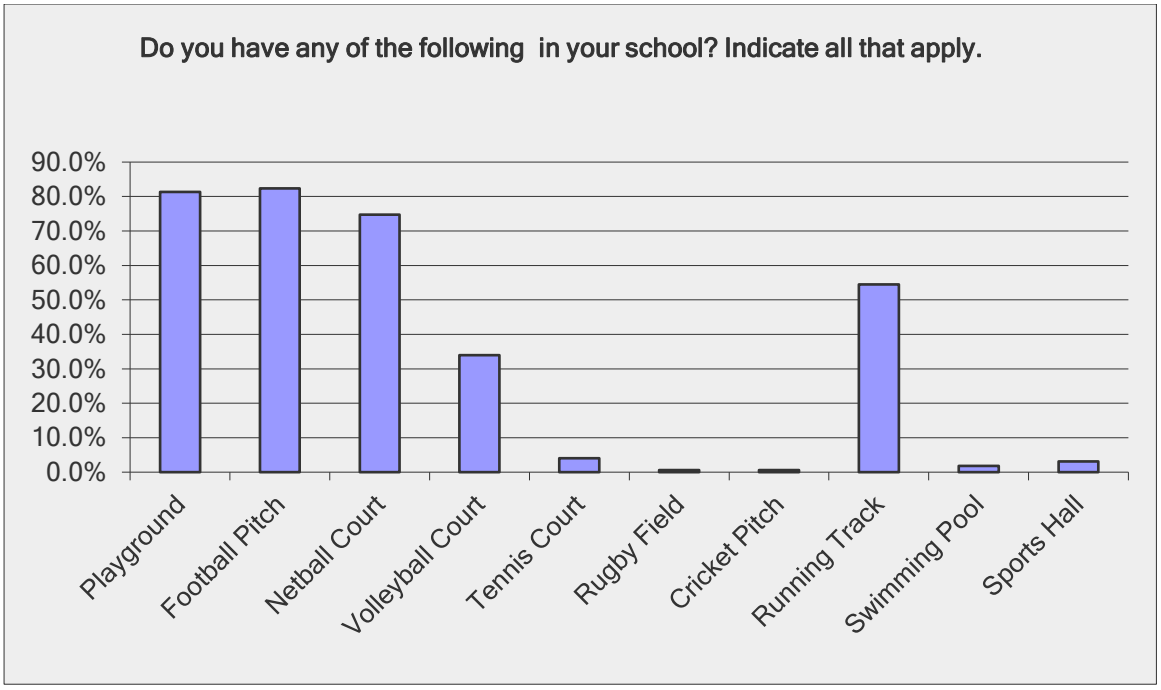
Appendix 3-Q14. How often do you have health talk at your school?



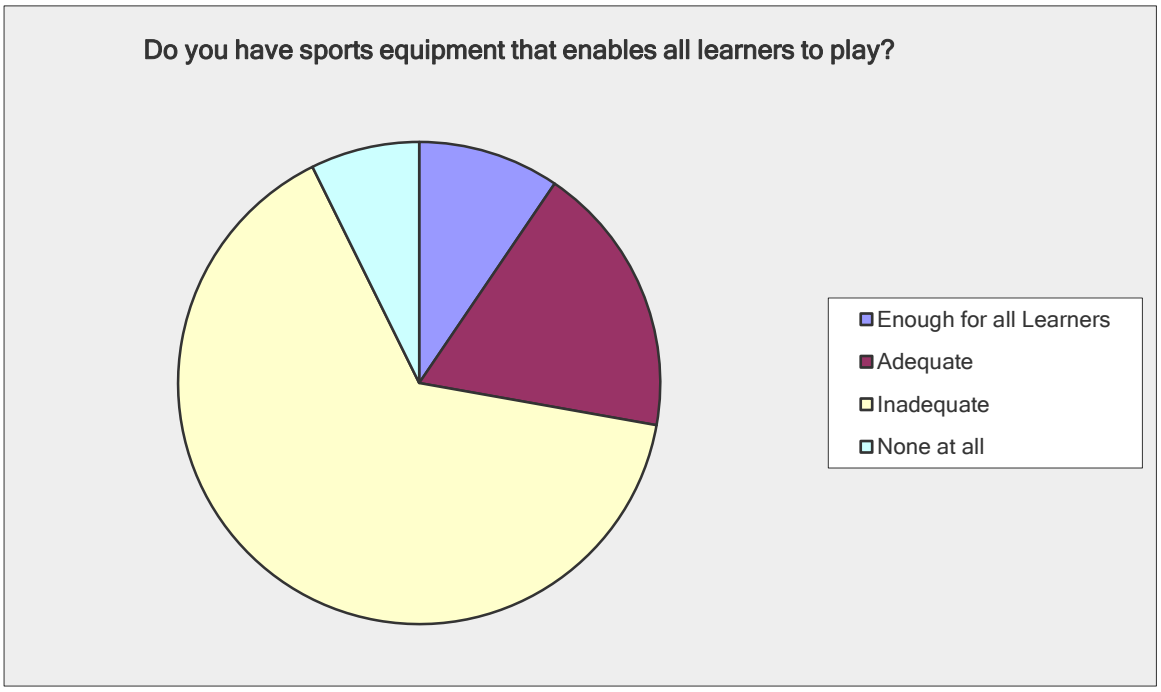
Appendix 4-Q16. Do you have power to make professional decision in the delivery of physical education in your classroom?



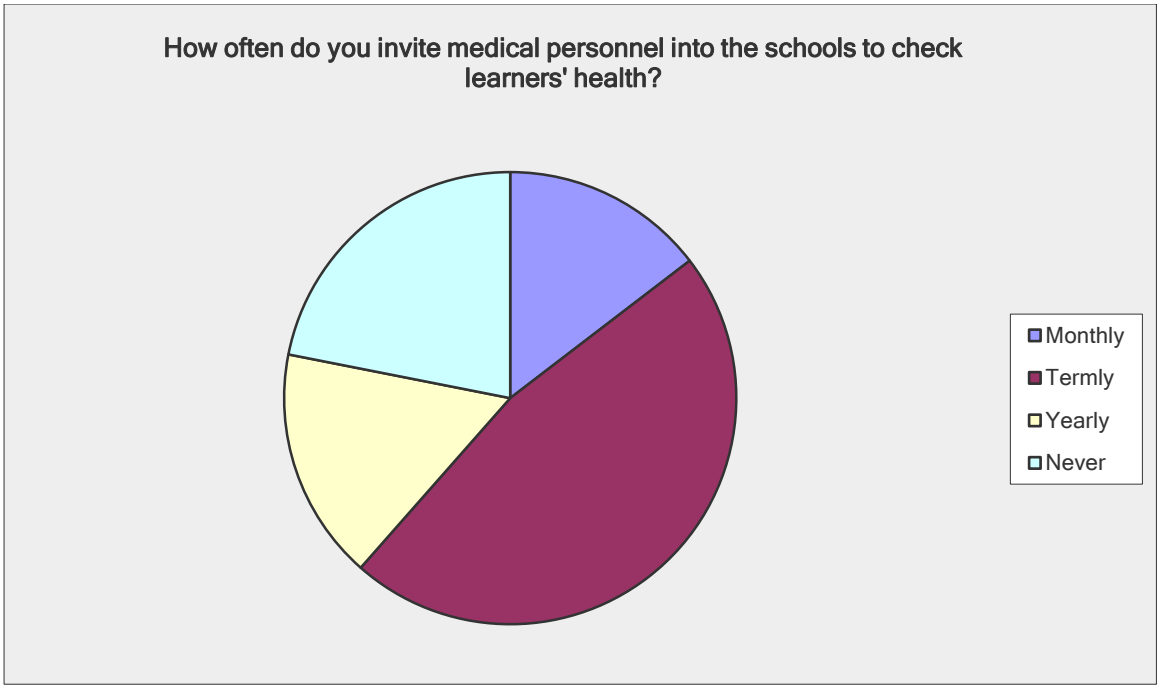
Appendix 5-Q 17. Do you have any of the following in your school? Indicate all that apply.



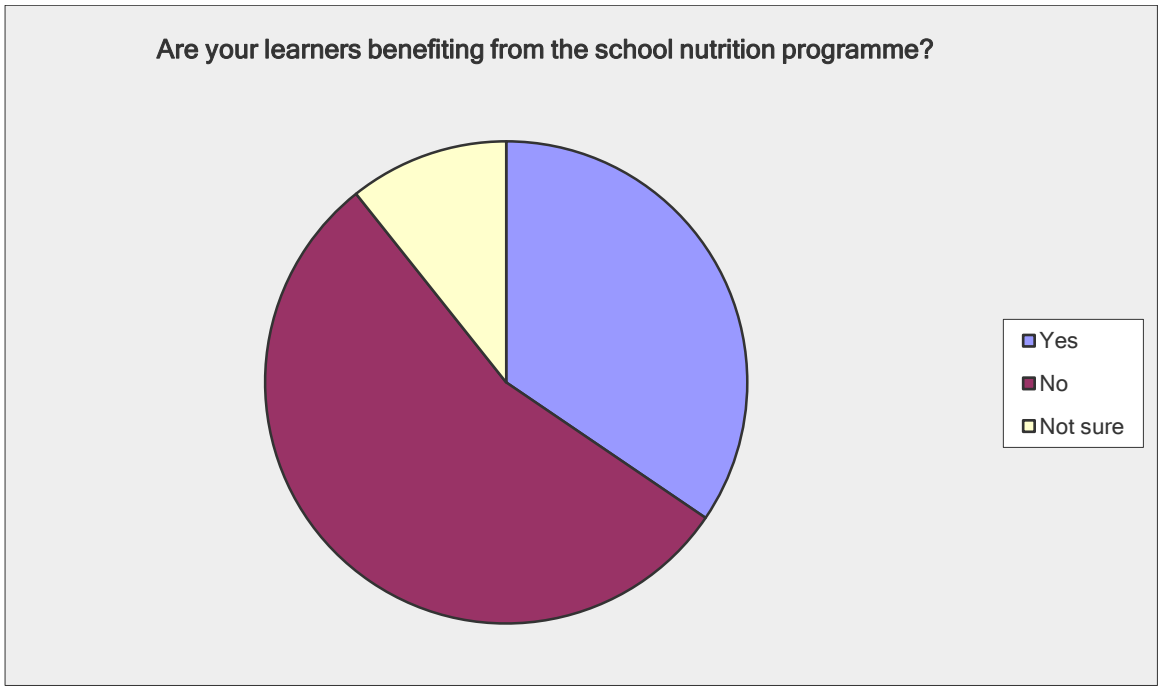
Appendix 6- Q18. Do you have sports equipment that enables all learners to play?



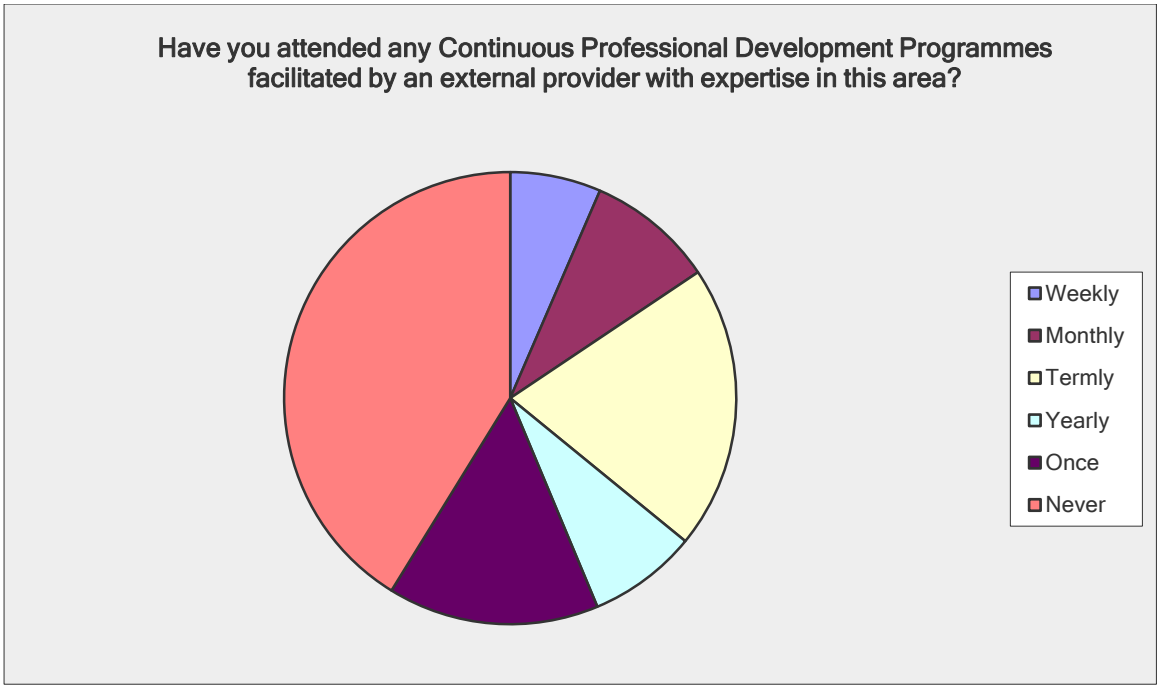
Appendix 7-Q19. How often do you invite medical personnel into the schools to check learners' health?



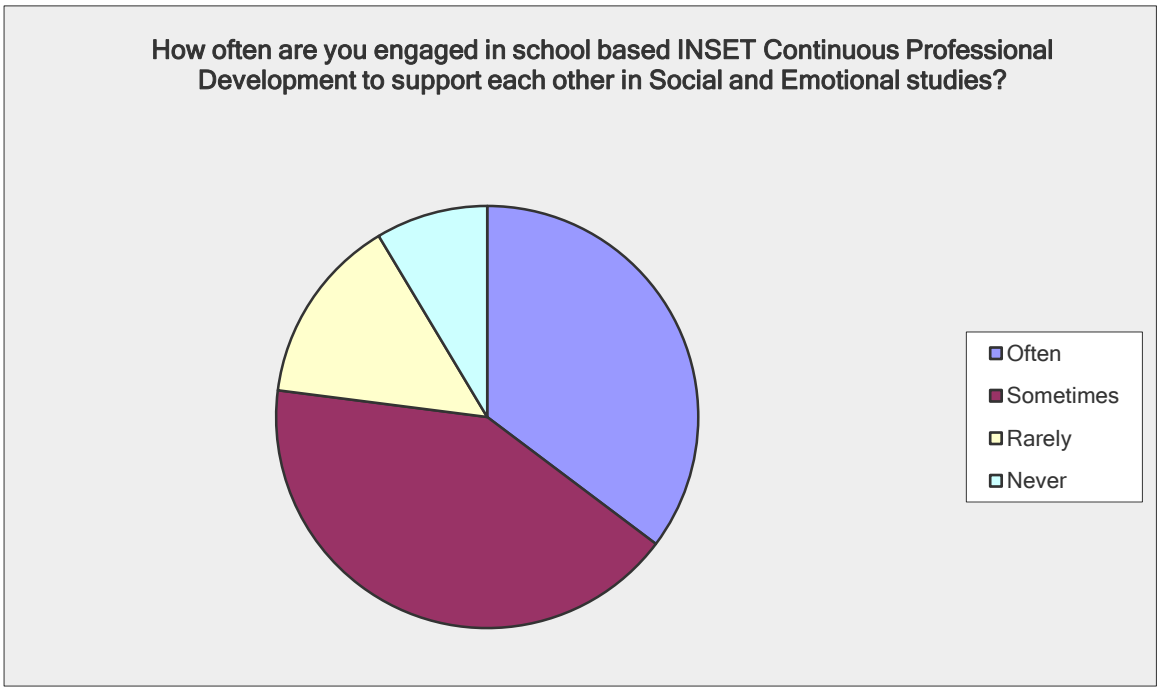
Appendix 8 -Q20. Are your learners benefitting from the school nutrition programme?



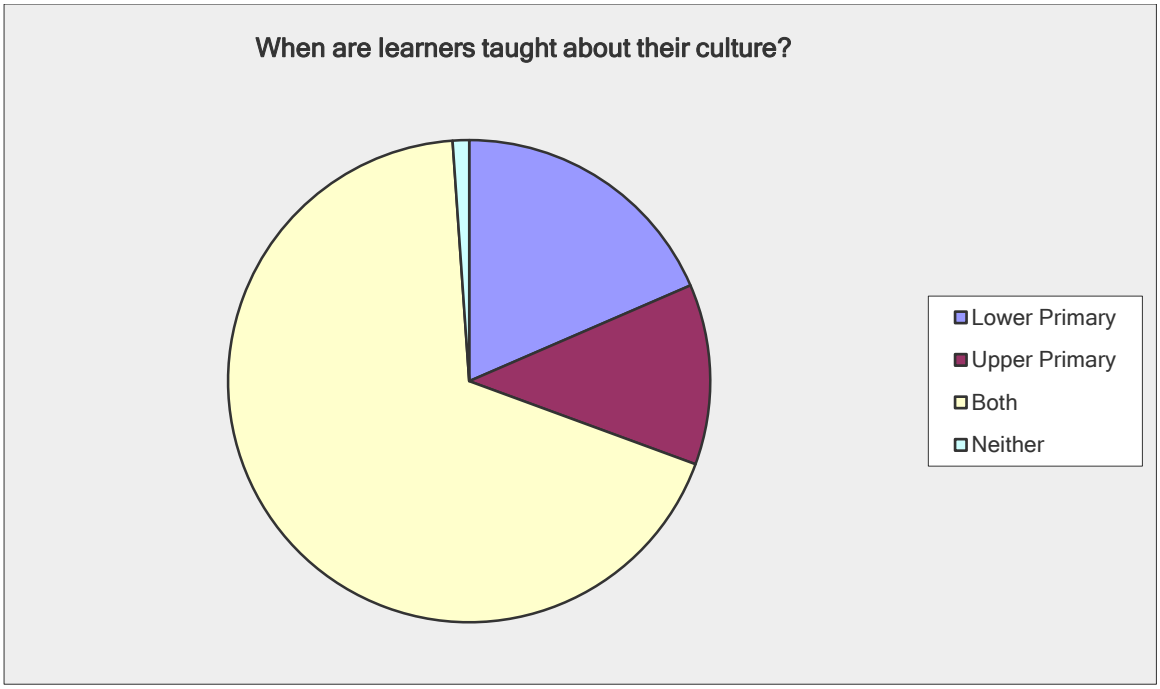
Appendix 9-Q24. Have you attended any Continuous Professional Development Programmes facilitated by an external provider with expertise in this area?



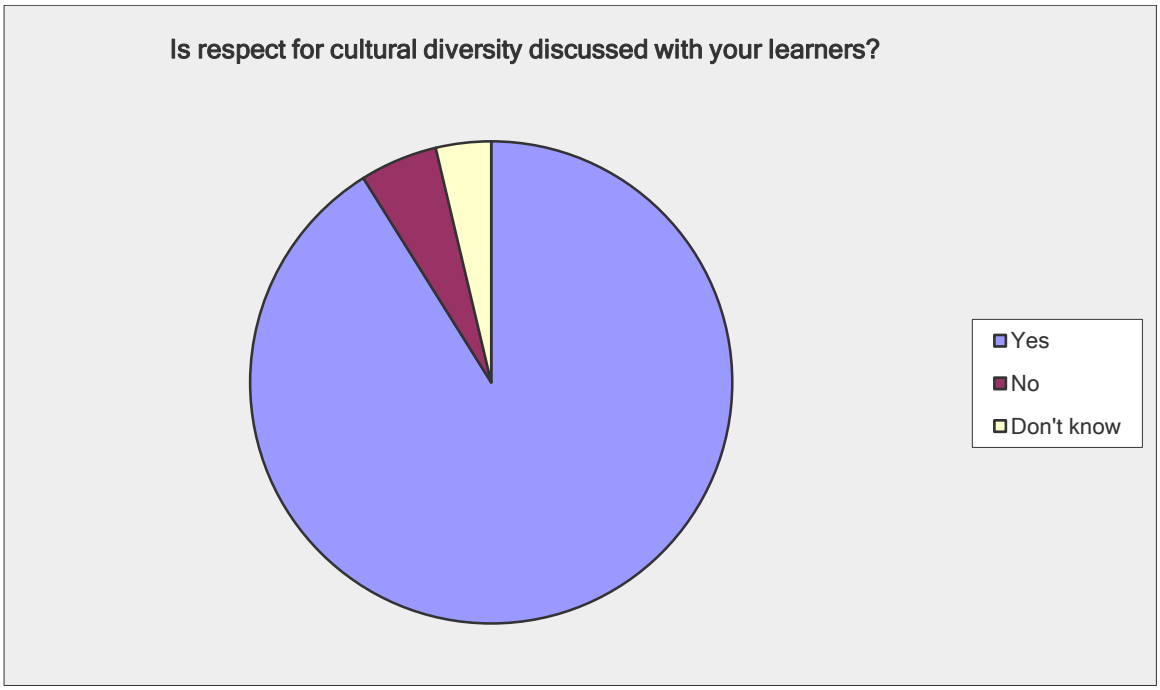
Appendix 10-Q39. How often are you engaged in school based INSET Continuous Professional to Support each other in Social and Emotional studies?



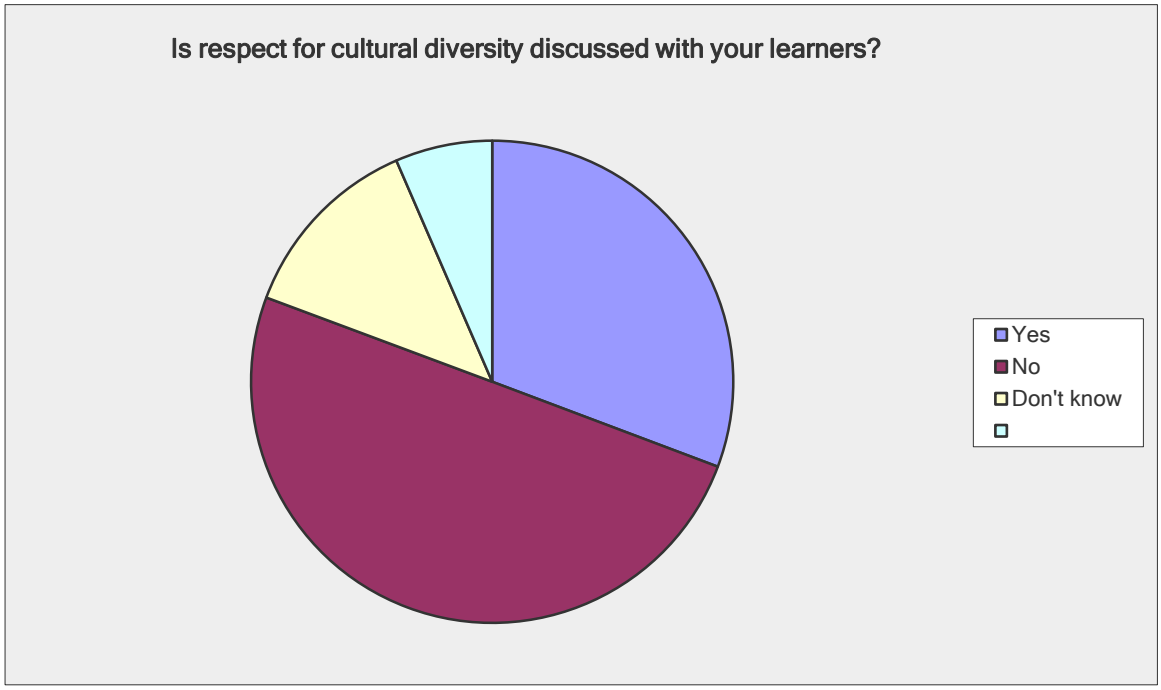
Appendix 11-Q42.When are learners taught about their culture?



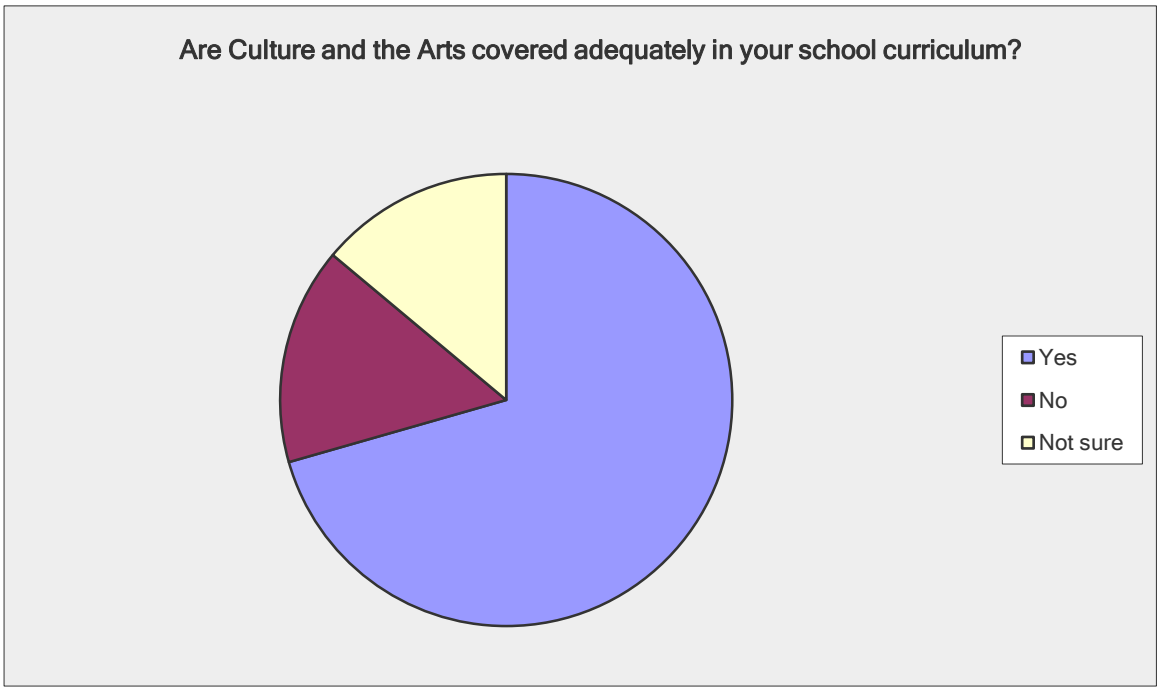
Appendix 12-Q43. Is respect for cultural diversity discussed with your learners?



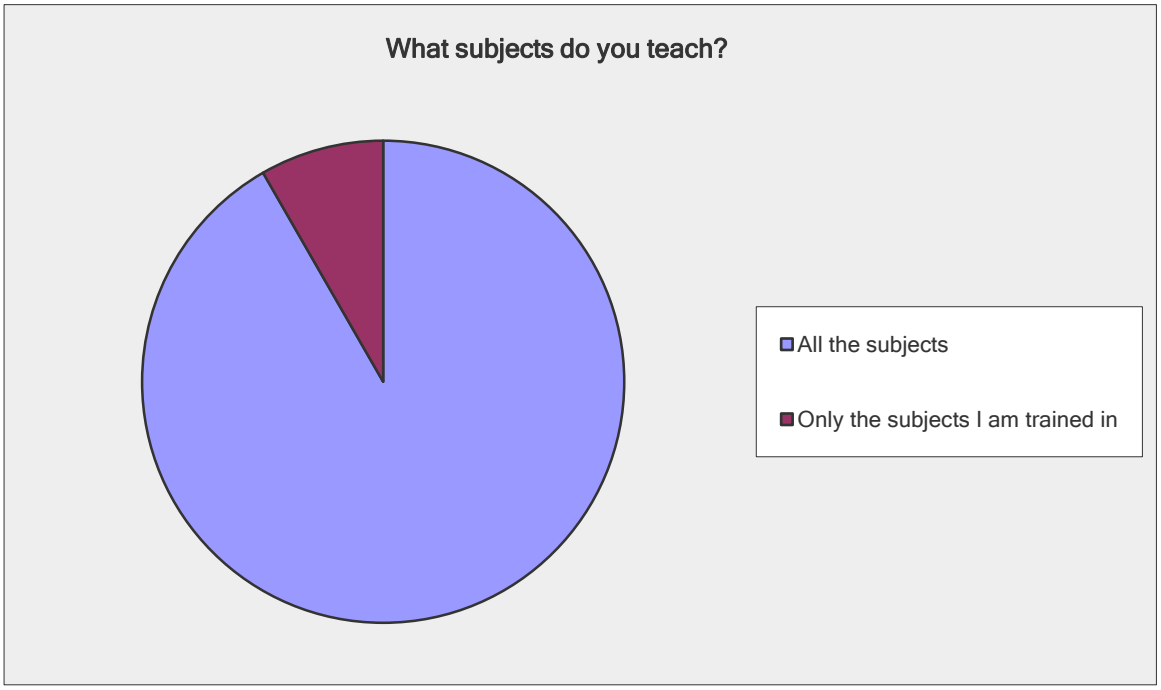
Appendix 13-Q44. Is respect for cultural diversity discussed with your learners?



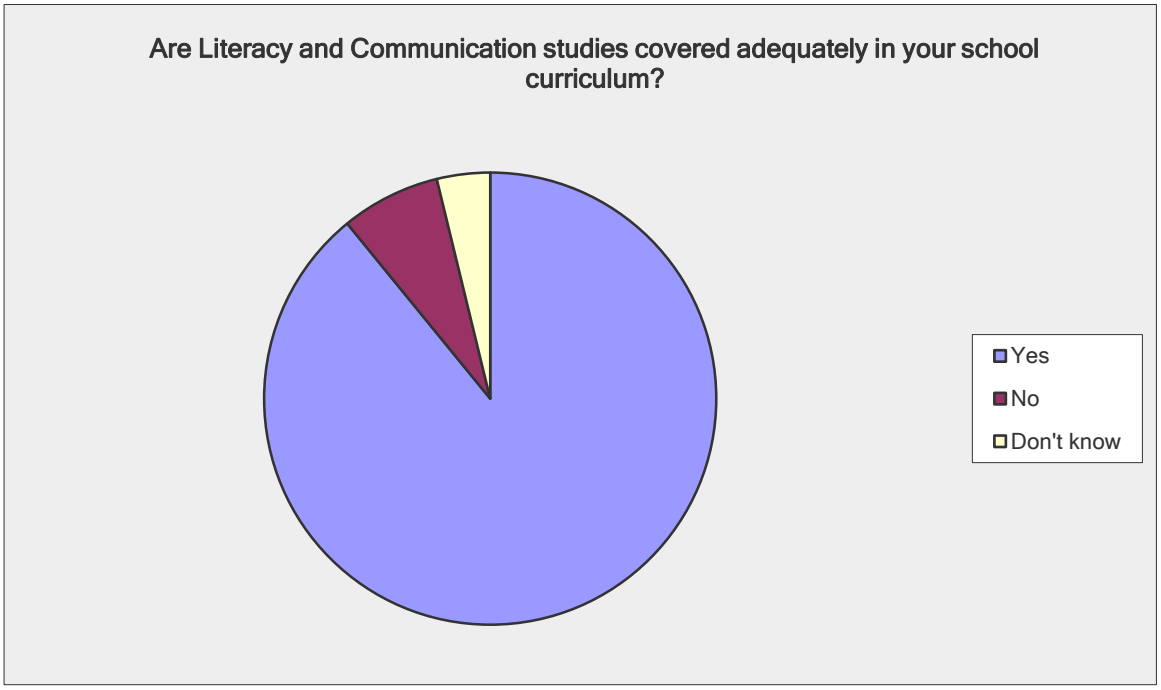
Appendix 14-Q45. Are Culture and Arts covered adequately in your school Curriculum?



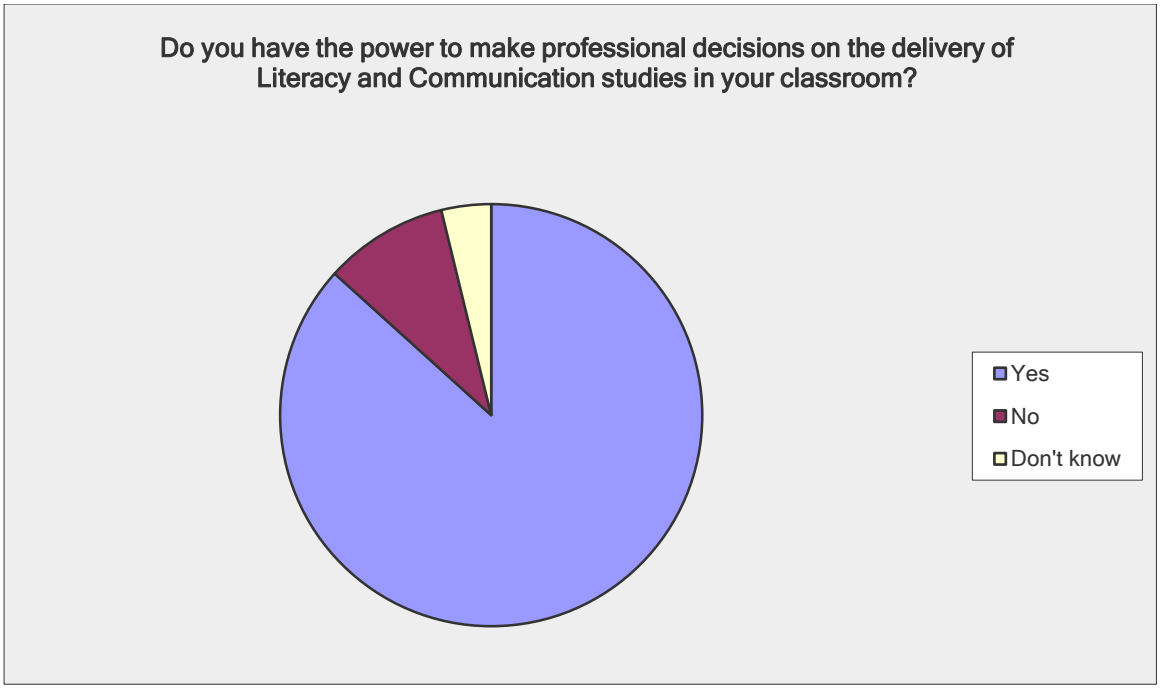
Appendix 15-Q55. What subjects do you teach?



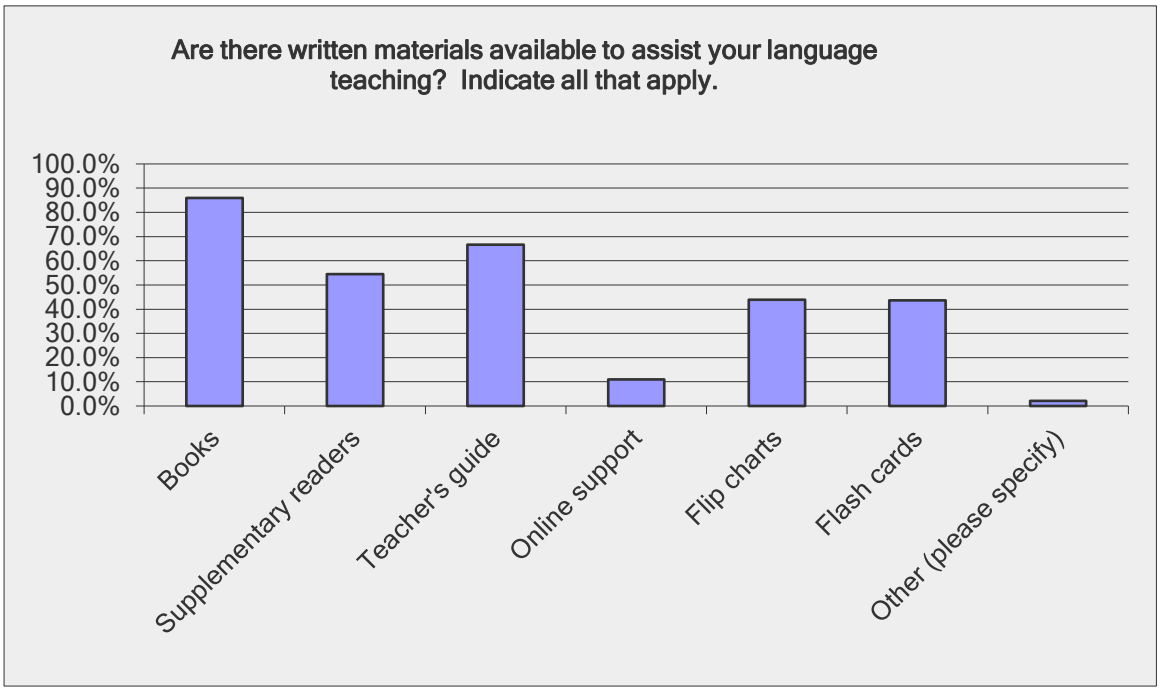
Appendix 16-Q57. Are Literacy and Communication Studies covered adequately in your school curriculum?



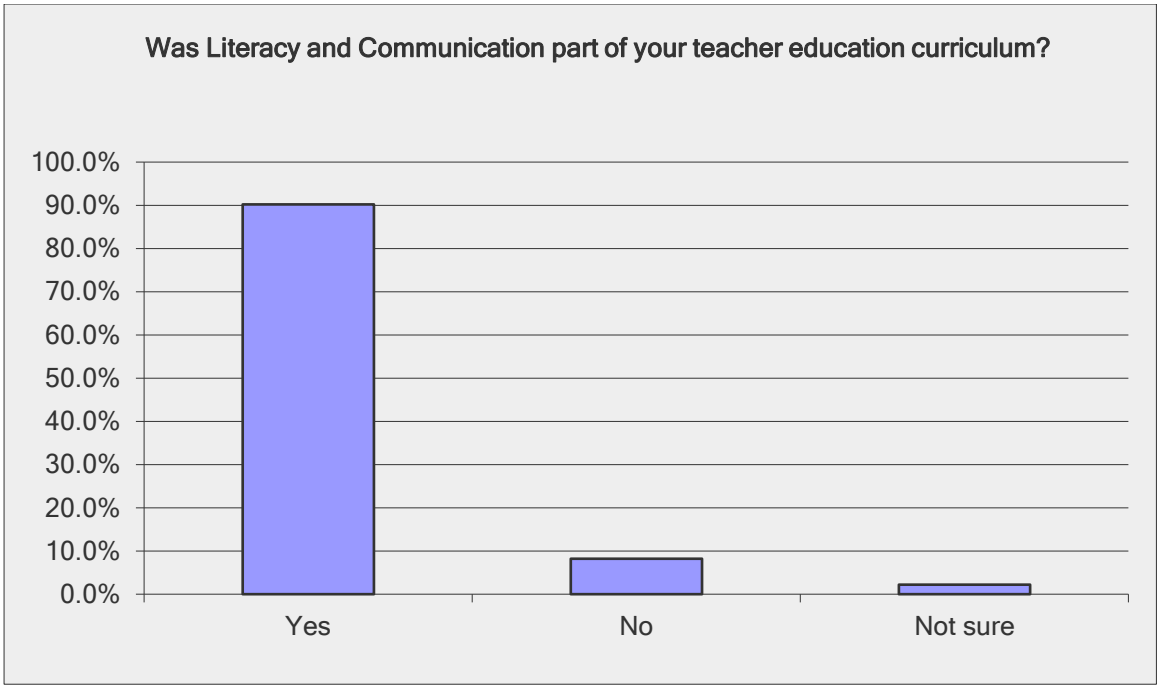
Appendix 17-Q58. Do you have the power to make professional decisions on delivery of Literacy and Communication studies in your classroom?



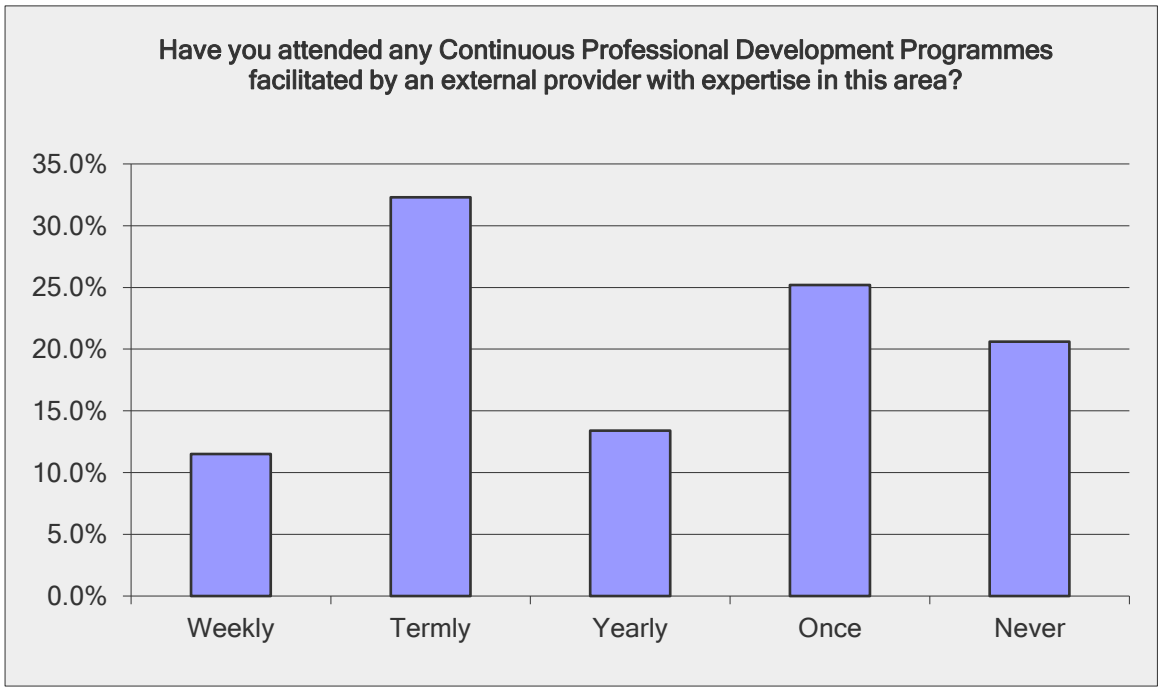
Appendix 18-Q61. Are there written materials available to assist your languages teaching? Indicate all that apply.



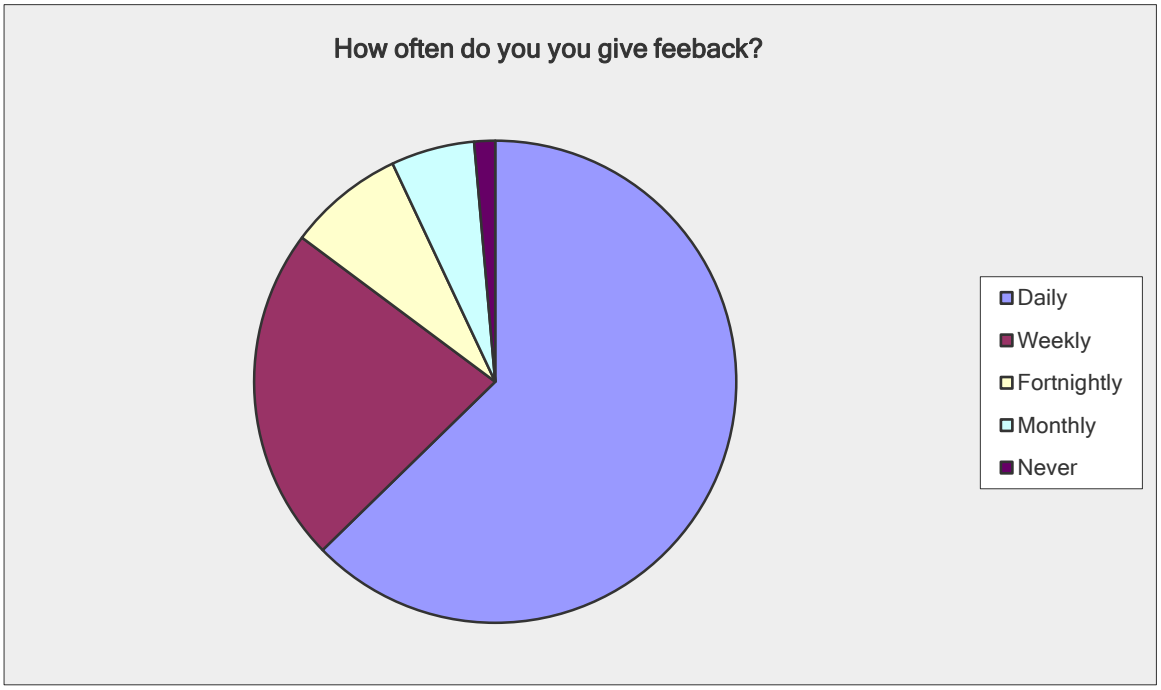
Appendix 19-Q63.Was Literacy and Communication part of your teacher education Curriculum?



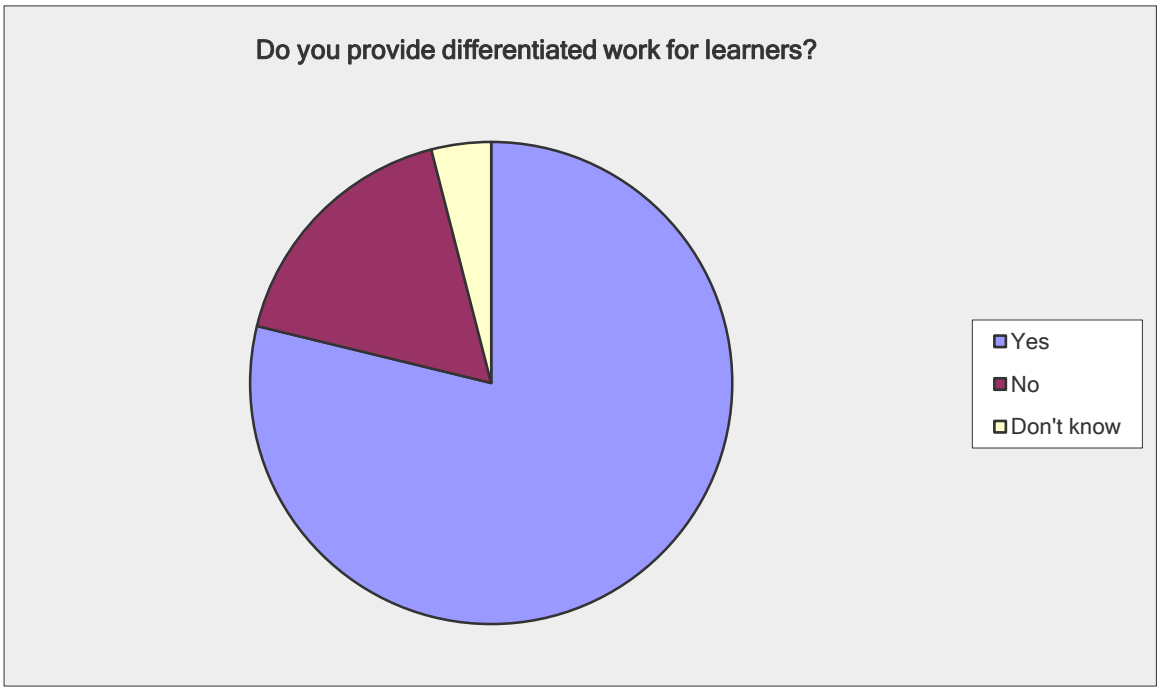
Appendix 20-Q64. Have you attended any continuous Development Programmes facilitated by external providers with expertise in this area?



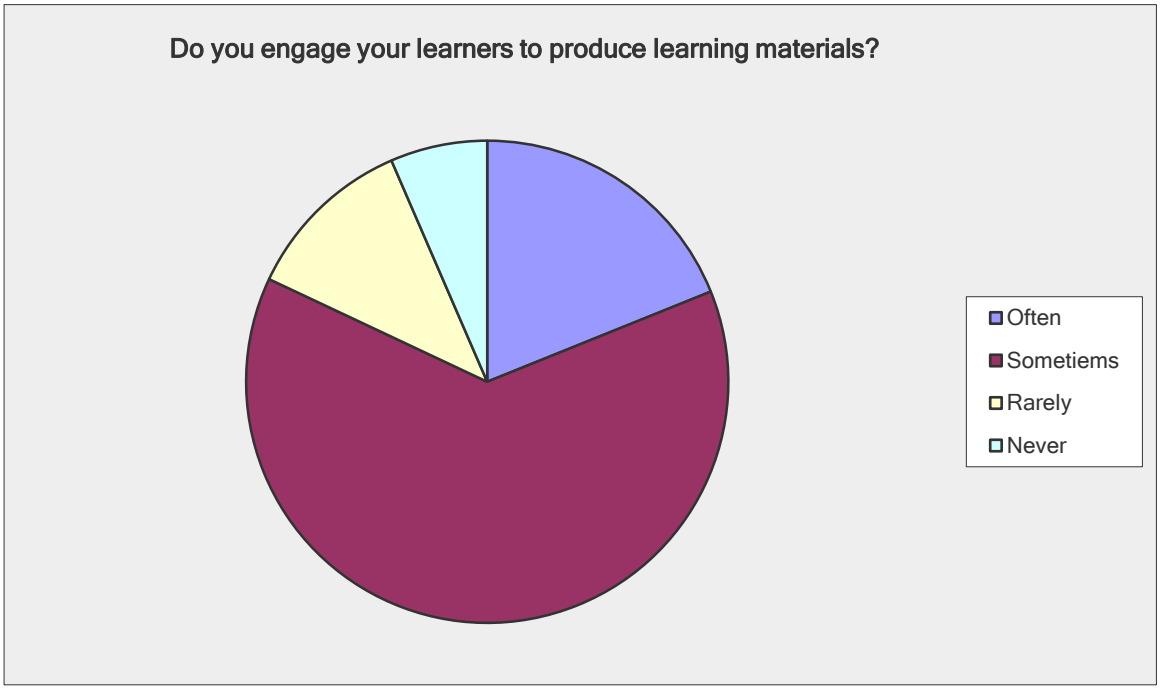
Appendix 21-Q67. How often do you give feedback?



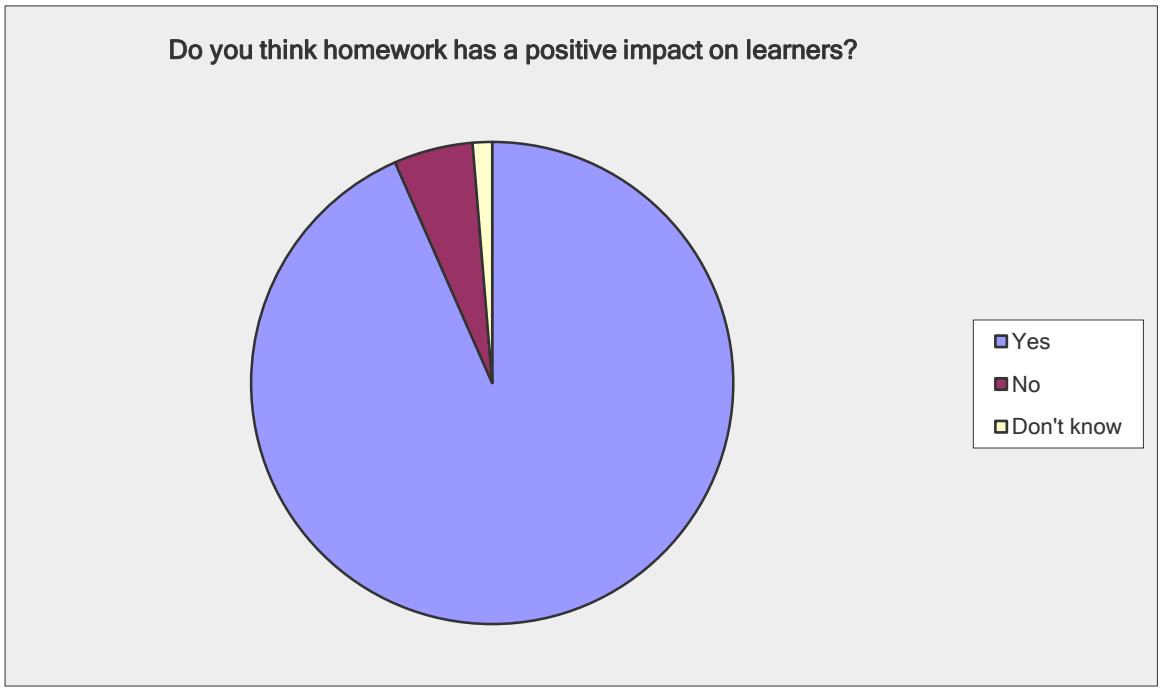
Appendix 22-Q68. Do you provide differentiated work for learners?



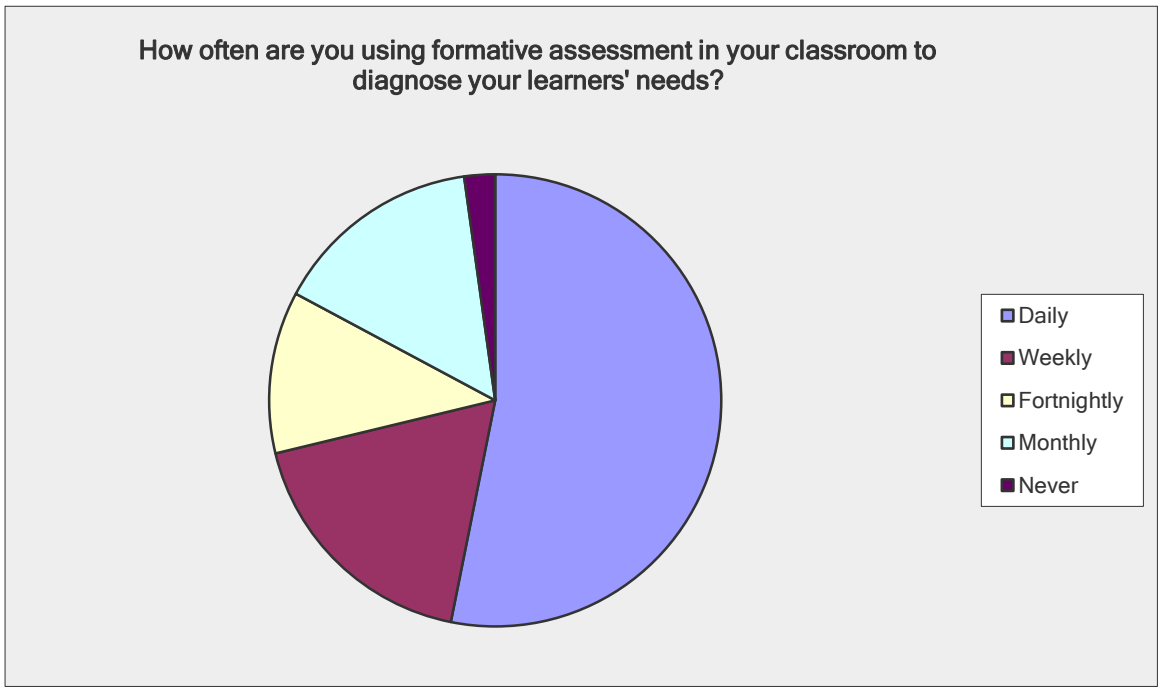
Appendix 23-Q71. Do you engage your learners to produce learning materials?



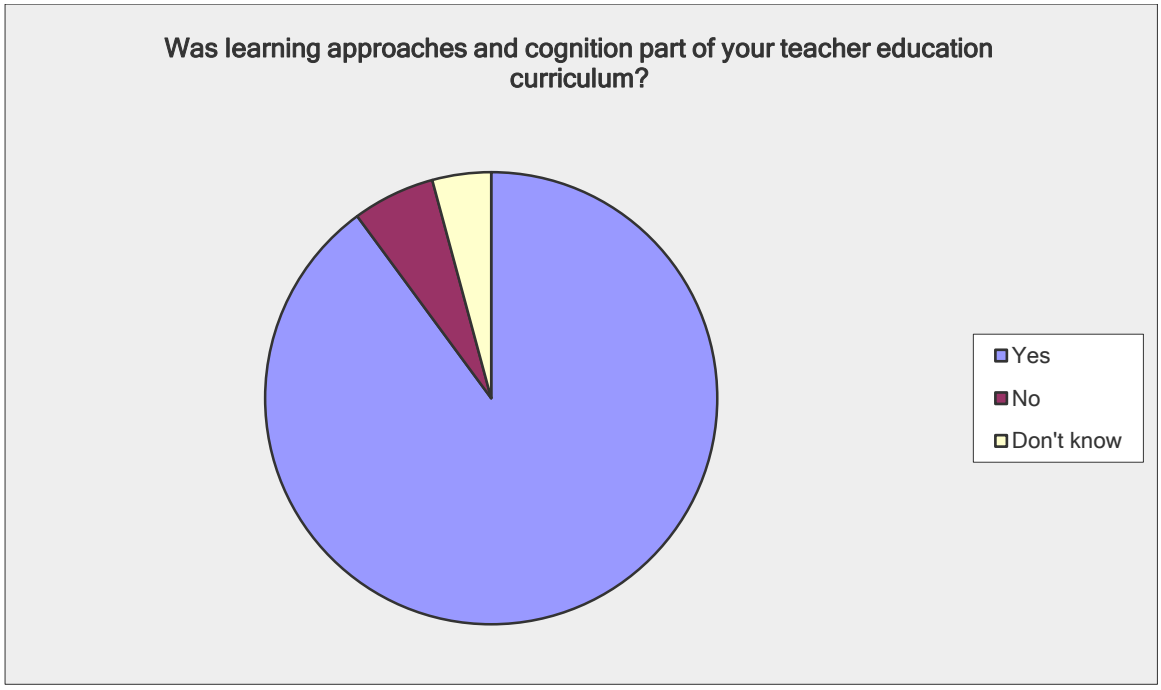
Appendix 24-Q76.Do you think homework has a positive impact on learners?



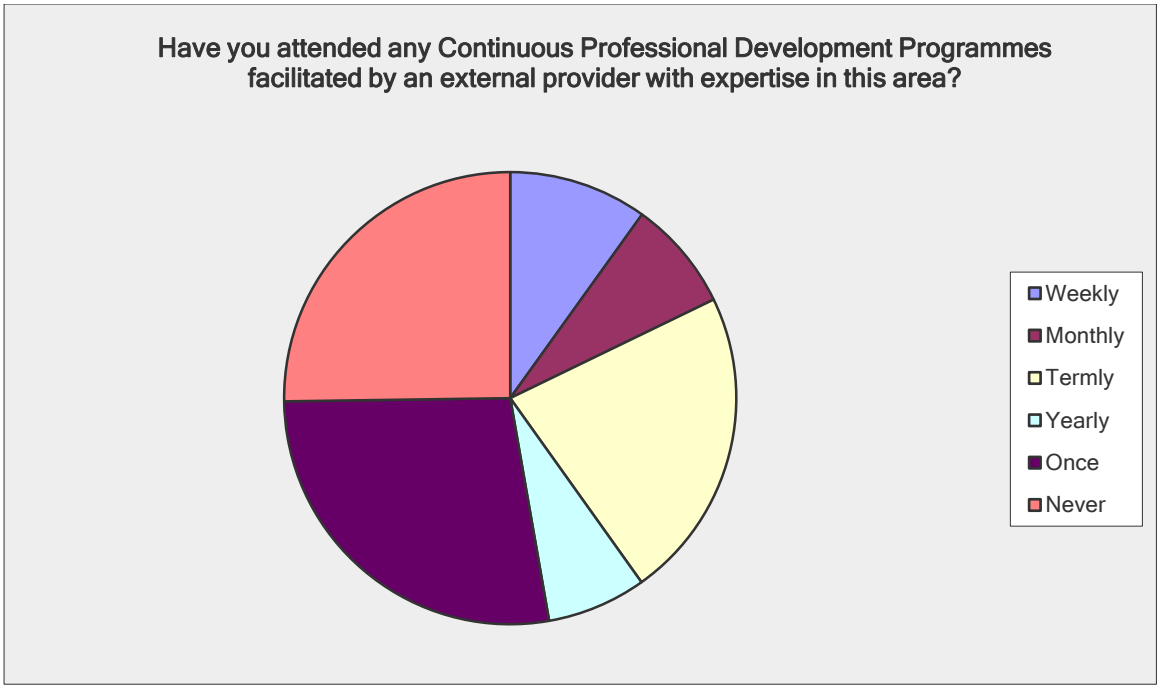
Appendix 25-Q79. How often are you using formative assessment in your classroom to diagnose your learners' needs?



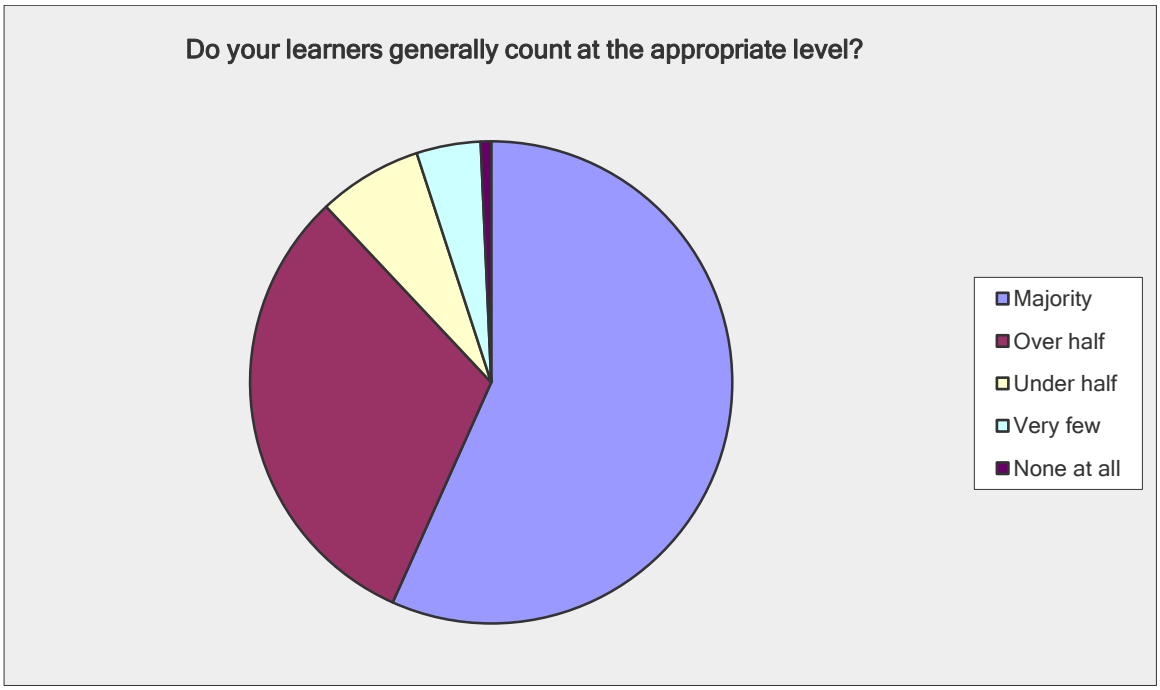
Appendix 26-Q81. Was learning approaches and cognition part of your teacher education curriculum?



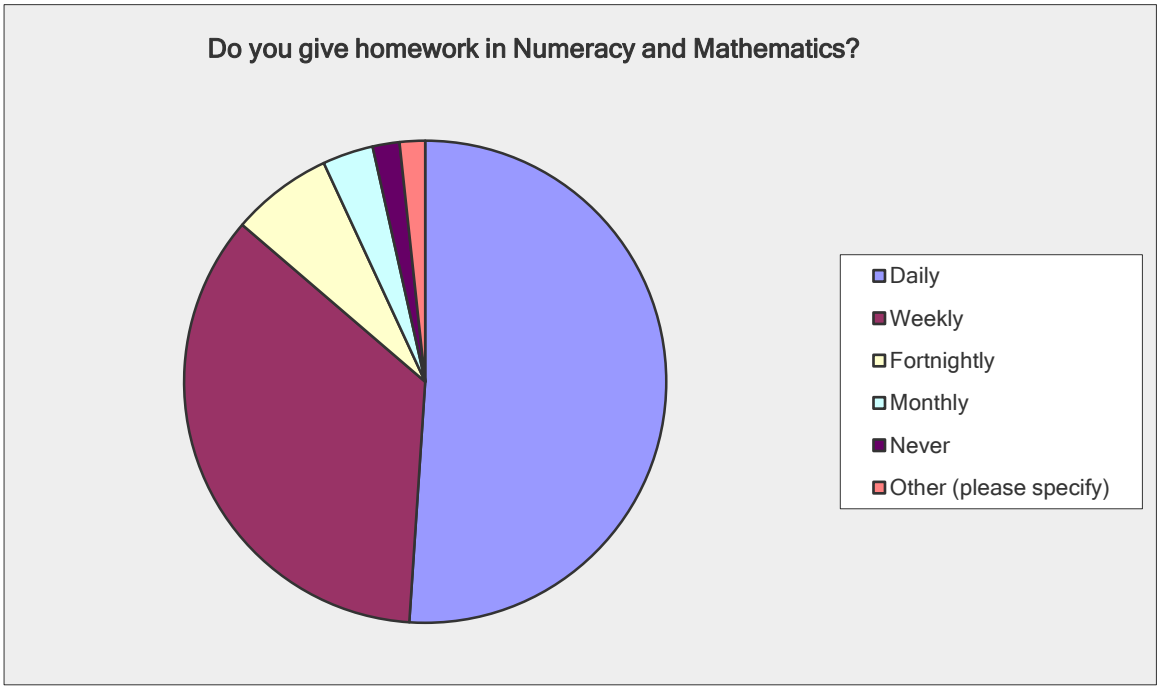
Appendix 27-Q82. Have you attended any Continuous Professional Development Programmes facilitated by an external provider with expertise in this area?



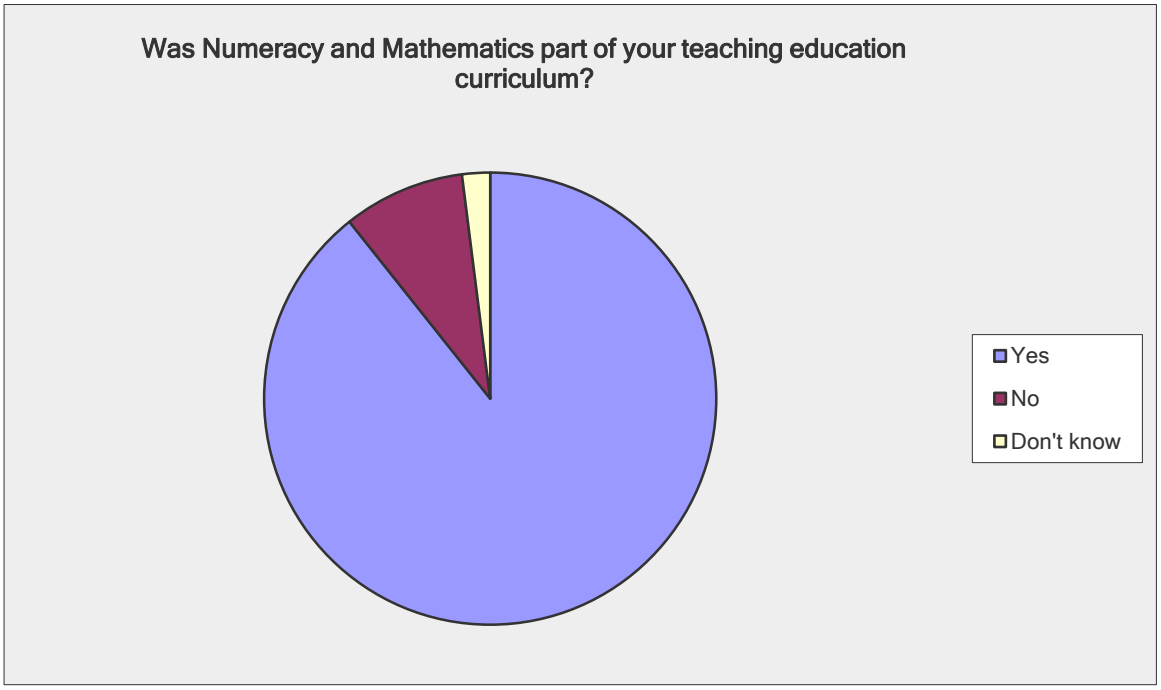
Appendix 28 -Q85. Do your learners generally count at the appropriate levels?



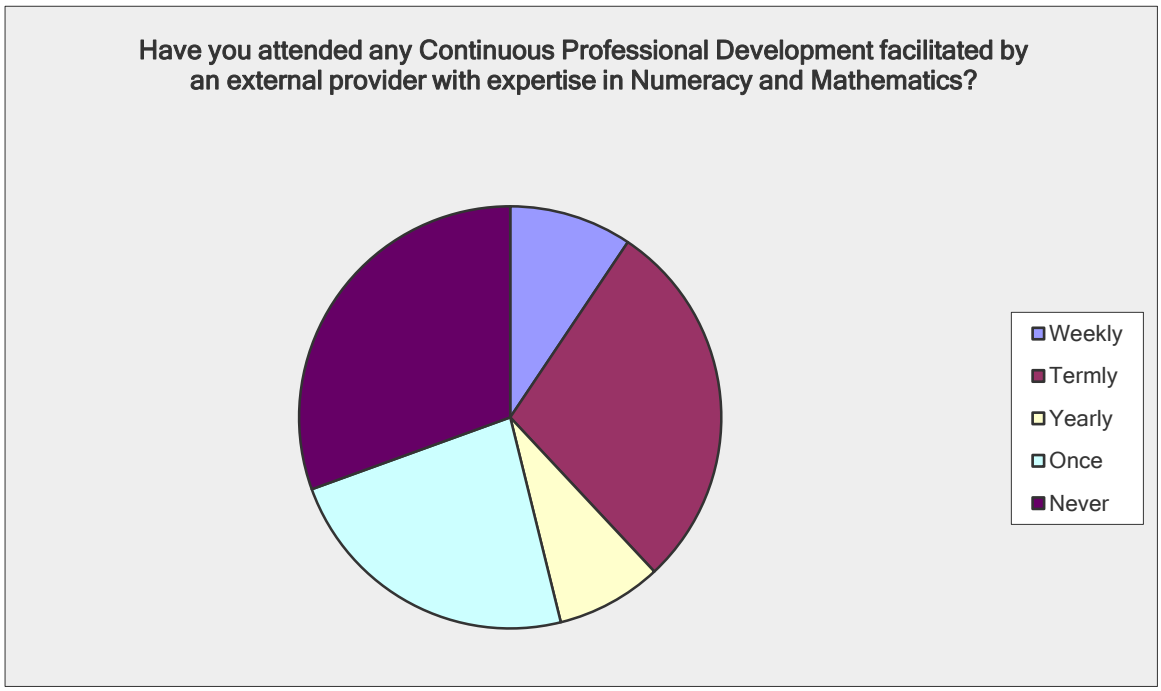
Appendix 29-Q91. Do you give homework in Numeracy and Mathematics?



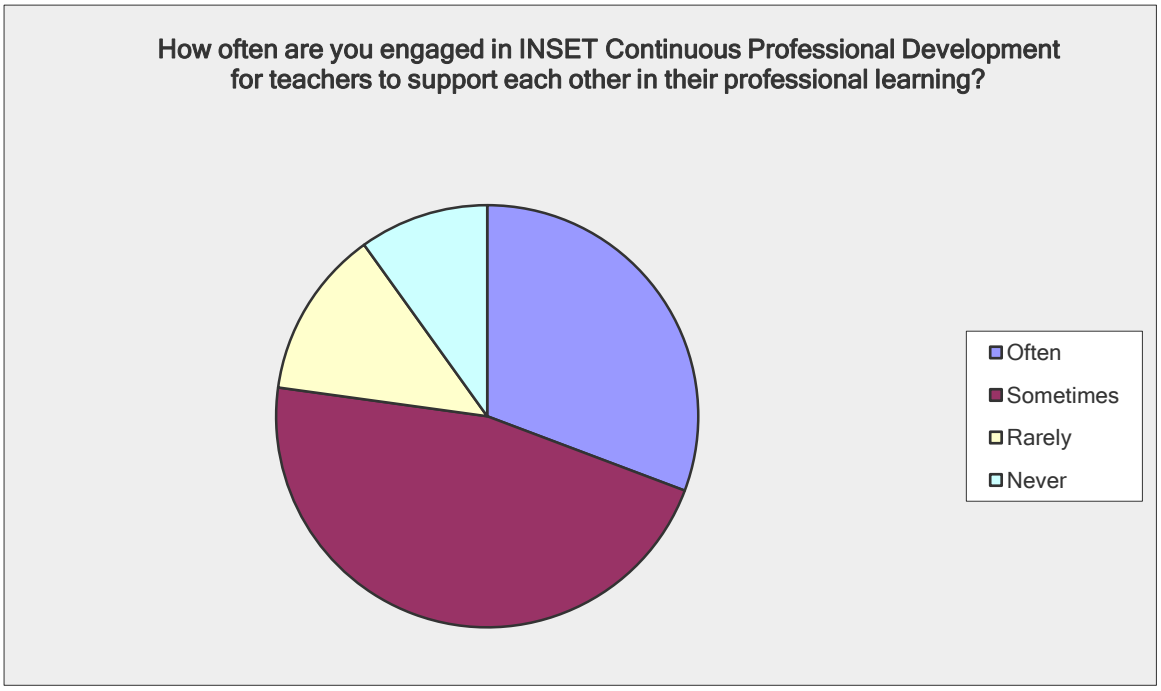
Appendix 30-Q93.Was Numeracy and Mathematics part of your teaching education Curriculum?



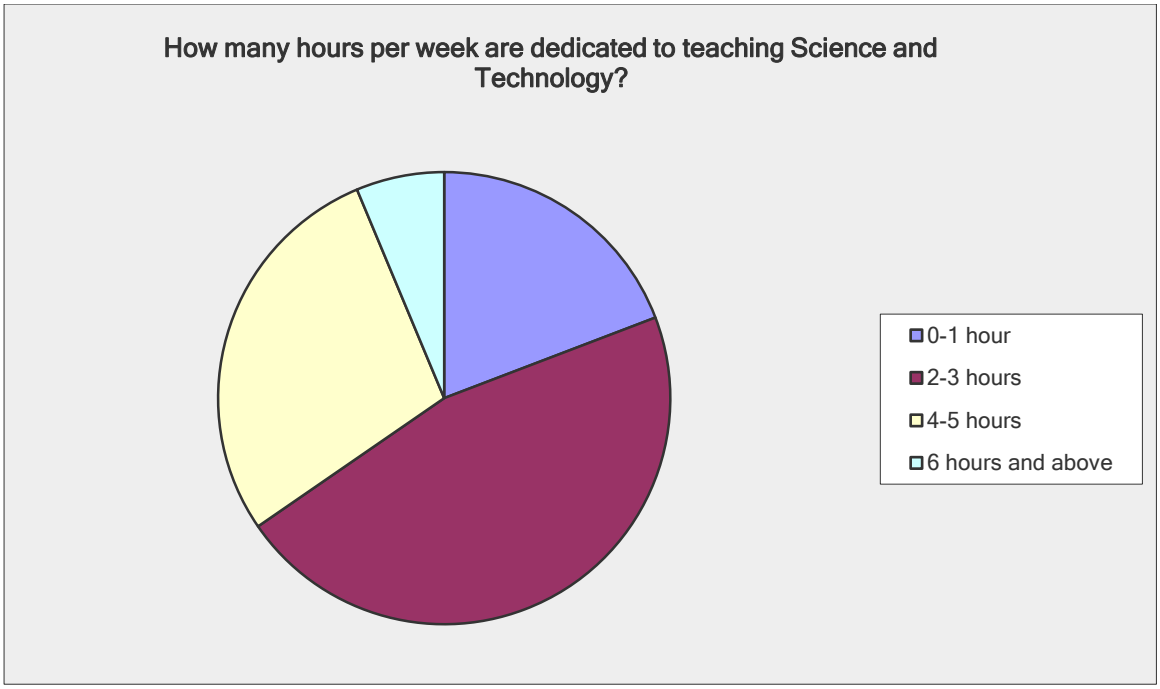
Appendix 31-Q94. Have you attended any continuous Development Programme facilitated by external providers with expertise in Numeracy and Mathematics?



Appendix 32-Q95. How often are you engaged in INSET Continuous Professional Development for teachers to support each other in their professional learning?



Appendix 33-Q96. How many hours per week are dedicated to teaching Science and Technology?


How many hours per week are dedicated to teaching Science and Technology?
0-1 hour
2-3 hours
4-5 hours
6 hours and above

Breadth of Learning:
Measuring the Breath of Learning in Zambian Primary Schools

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