CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the study

It is believed that the 21st century is an era that has seen a lot of development in technology and knowledge proliferation in many aspects of life. Generally and Educators specifically are challenged more and more to raise graduates who should adapt and respond to a dynamic and fast growing environment. For example, as a result of responding to such fast changes, the American government in 1990, formed a committee which was known as the Secretary’s Commission on Achieving Necessary Skills (SCANS), whose major task was to carry out a comprehensive study on how well schools prepare young people for the workforce (http://www.applied.technologies.com).

This fast growing environment is in urgent need of not only literate people but also those that have a desirable level of thinking skills.

Following its comprehensive study, the earlier on mentioned SCANS Report that was produced in the year 2000, defines thinking skills as thinking, making decisions, solving problems, seeing things in the mind’s eye and knowing how to learn and to reason. Hiebert and Raphael (1996) suggest that by definition literacy is the first step in the empowerment of the mind. There is a seeming relationship between literacy and levels of thinking.

The UNESCO definition of literacy, according to Gray (1956), is functional but also hinges much on one’s ability to read and to write,

“a person is functionally literate when he has acquired the knowledge and skills in reading and writing which enable him to engage effectively in those activities in which literacy is normally assumed in his culture or group” (Gray, 1956, pp 16)

However, literacy goes beyond the basics of being able to read and to write. It is the development of a whole individual. Hiebert and Raphael (1996) and SCANS report (2000) amplify the notion that literacy should go beyond one’s ability to read and to write and also that literacy should empower the mind and should enable one to develop his or her thinking skills.

Society has got high expectations from learners that graduate from high schools. These graduates filter into different sections of the society where they need to utilize their thinking skills to their own benefits and also to the benefit of society at large. Salpeter (2003) says that to be
prepared for the demands of the knowledge economy, stu-
ts need to know how to use their
knowledge and skills – by thinking critically, applying knowledge to new situations, analyzing
information, comprehending new ideas, communicating, solving problems and making
decisions.

Shoddy thinking is costly, both in money and in quality of life. Excellence in thought, however,
must be systematically cultivated (http://www.criticalthinking.org-Defining Critical Thinkingmht).
This statement underscores the fact that critical thinkers are an indispensable factor for any
kind of development to take place. It is, therefore, for this reason that this study was embarked
upon. The study sought to establish the development of thinking skills among the grade twelve
learners. The mode of establishing this was through language learning, specifically the reading
comprehension component of the English language is the tool that was used. Two reading
comprehension passages, one from the Examinations Council of Zambia and the other one
from the Grade twelve English Language textbook, were administered to the sampled pupils.

1.2 Statement of the problem

The Grade 12 learners are on the threshold of the world of more demands that need their
analytical and creative thinking skills. As these pupils learn comprehension through the English
language, the general assumption is that they are also developing the high thinking skills. It is
not known to what level the thinking skills of the learners are developed. Thus the problem
being investigated is that we do not know to what level the learners in Grade 12 have developed
their thinking skills to be able to answer given questions on reading comprehension.

1.3 Purpose of the study

The purpose of this study was to find out to what level the learners in Grade 12 had
developed their thinking skills to be able to answer given questions on reading
comprehension.

1.4 Objectives of the study

The objectives of the study were:
1. to find out which category of reading comprehension questions the grade 12 learners are able to answer and
2. which categories of reading comprehension questions the grade 12 learners are not able to answer

1.5 Research questions

Main Research Question
To what extent do the Grade 12 learners exhibit their thinking skills in answering questions from a given passage on reading comprehension?

Sub questions

1. Which category of reading comprehension questions are learners able to answer?
2. Which category of the reading comprehension questions are the learners not able to answer?

1.6 Significance of the study

It is hoped that the findings of the study may be used by the Ministry of Education to modify the curriculum, syllabus, teaching and learning materials for the High school levels (grades 10-12). This, it is hoped, will give the literacy component of teaching and learning more attention so that the cognitive levels of pupils are enhanced by the time they are completing their grade 12.

1.7 Limitations

Limitations are occurrences which negatively affect the process of data collection and they are bound to occur (Kulbir, 2006).

In order to get the necessary data for the intended study, grade 12 learners were targeted as respondents. The selection of learners to participate was done randomly. As such arose a situation whereby the other learners not picked became suspicious and also wanted to take part. On the other hand, from among those picked some not willing to participate. This negatively affected the data collection exercise since respondents are supposed to participate
willingly. In some cases, the school administration felt that the researcher had visited the school at an inappropriate time. The researcher was, therefore, asked to go back to the school another time. This led to some derailment in the researcher’s programme as time started running out.

1.8 Operational definition of terms

The definition of terms clarifies how the terms are used in this study.

**Cognitive level** – The thinking levels of an individual

**Remembering** – Recalling information

**Understanding** – Learners’ demonstration of being able to translate given information into other forms.

**Applying** – Learners’ ability to use the given information in a new way.

**Creating** – Learners’ ability to create or to form new ideas from what they have learnt.

**Critical thinking** – Learners’ ability to regulate, monitor and question their thinking as they reflect on an issue, engage in a discussion, argue a point or make a contribution. The kind of thinking that combines most if not all the levels of the cognitive domain culminating into an inclination towards the higher cognitive levels of applying, creating, analyzing and evaluating information gathered or earlier on acquired.

**Literacy** – Learners’ being able to think beyond being merely able to read and to write. The learner should be able to combine all the categories of the cognitive domain for them to be literate. The learners should have a mastery of critical thinking skills, creative skills with knowledge at hand, knowledge application skills, understanding skills and remembering skills.
CHAPTER TWO

2.0 Literature Review

The Ministry of Education in Zambia has designed literacy courses for the lower and middle basic level pupils. These courses build on each other. The first course, designed for the Grade 1 pupils, is called the New Breakthrough to Literacy (NBTL) Course. This is a course that is aimed at introducing initial literacy at Grade 1 through the seven official Zambian languages. The next literacy course is called the Step into English (SITE) Course designed for Grade 2 pupils. The third literacy course is the read-on course (ROC) designed for Grades 3 to 7 pupils. These courses outlined are the ones that stand out as literacy courses that are taught as separate subjects in the basic grades, that is, grades 1 to grade 7, (PRP)

Literacy is a broad and dynamic concept. Leu (2000) and Leu and Kinzer (2000) have mentioned that the definition of literacy has always changed with time although it appears that the rate at which it is changing now is faster than ever before.

The global trends which are also changing at a very fast rate are evident as well as demanding. These changes place urgent demands on society for individuals who are literate and equipped with the desired thinking skills. Governments have come up with aspirations as to what caliber of citizens they hope to produce. This is one way of responding to the demands of the society. In its document entitled the Fifth National Development Plan, (FNDP, 2006), Zambian government talks of focusing on human resource development, among other factors. This is further streamlined and directed towards the Ministry of Education. In order to give further direction to education with a view of creating literate citizens and literate human beings, concerted efforts were undertaken to come up with a policy document (Educating our future) which was documented in 1996. The policy document states,

the mission of the Ministry of Education is to guide the provision of education for all Zambians so that they are able to pursue knowledge and skills, manifest excellence in performance and moral uprightness, defend democratic ideals, and accept and value other persons on the basis of their personal worth and dignity, irrespective of gender, region, ethnic origin, or any other discriminatory characteristic (Educating our future, 1996, P1)

It is evident that one of the priorities of the Ministry of Education is to an end product in form of a learner who has developed an analytical, innovative, creative and constructive mind. So in its quest to develop human resource, the Ministry of Education is actually aspiring for
literate people with developed thinking skills. Every graduate learners are churned into society. These graduate learners should be the desired human resource.

Rajendran (2001) mentions that to be considered literate seems to require that students know more about how to think. Salpeter (2003) points out to be prepared for the knowledge economy, students need to know how to use their knowledge and skills – by thinking critically, applying knowledge to new situations, analyzing information, comprehending new ideas, communicating, collaborating, solving problems and making decisions. Here high order thinking skills starts to emerge as an integral part and disposition of somebody who is literate.

The SCANS Report describes thinking skills as thinking creatively, making decisions, solving problems, seeing things in the mind’s eye, knowing how to learn and reasoning. This implies that a person who is in possession of thinking skills must think creatively. Bloom (1956) also calls creative thinking as divergent thinking and that it is the process of generating original or new thoughts, designs or products. There appears to be a very thin dividing line between the ability to think creatively and the ability to make decisions and solve problems. Decision making is said to be a higher-order thinking skill used in situations where there are a number of possible or workable solutions (http://www6.svsu.edu/~efs/decisionmaking.htm).

Problem solving is looked at as a skill that is used to recognize that there is a problem existing after which processes are used to find a solution (http://www6.svsu.edu/~efs/problemsolving.htm).

There is a close relationship between literacy and thinking skills. Rajendran (2001) makes an assertion that literacy is taught in order to assist the learners develop their thinking skills.

This seeming intertwining makes it imperative to look at the issue of thinking and thinking skills. One inevitable question to ask is whether or not thinking is a natural process and whether the thinking process needs to be nurtured for to develop. In promoting his Cognitive Research Trust (CoRT) thinking programme, De Bono suggests that thinking must go beyond being a natural process. He states,

Most people do not bother any more about their thinking than they do about walking or breathing. Thinking seems a natural enough process and one is happy with one’s competence. There is, however, much more individuality in thinking styles and sufficient difference between individuals to suggest that thinking may be a skill about which something can be done (http://www.edwdebono.com/index.html).
It can be said then that thinking has to be nurtured in order for it to develop from where it naturally starts. Nickerson (1988) says that it does not follow from the fact that we think spontaneously that we think as effectively as we might. Goleman (1995), Nisbett and Ross (1980), Tversky and Kahneman(1974) all appear to support the point that there is evidence regarding our limitations as thinkers and the various ways in which our thinking commonly goes astray. Efforts must be made for someone to acquire thinking skills.

The seeming suggestion that thinking skills need to develop is also championed by Gardner and Hatch (1989). They point out that it is a myth to assume that as people mature, their thinking and reasoning naturally escalate and that unfortunately critical and creative thinking abilities do not develop automatically. Gardner and Hatch also say that adults who were not taught to think critically and creatively exhibit native abilities that are no more advanced than the thinking processes they used when they were in the sixth grade. Here is yet another pointer to the contention that thinking skills develop in people by them being taught.

The Bloom’s taxonomy is one tool that has been used to determine the thinking levels among learners. In 1956, Benjamin Bloom and his team of psychologists developed a hierarchy to categorise levels of thinking. This is hierarchy popularly referred to as “Bloom’s Taxonomy”. It describes and explains six levels of cognitive (thinking) processes as Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation.

According to the architects of this taxonomy, these thinking levels are successive with the less complex one being knowledge and the most complex one being evaluation. The pioneers of this determining tool also make an assertion that the more complex thinking levels of being analytical, creative and evaluative are attained through the less complex ones of remembering, understanding and applying given information.

Bloom (1956) says that there are six categories in Bloom’s taxonomy and they are categorized in order, starting with the simplest forms to the more complex forms and the first or less complex levels must be mastered before one can master the next and more complex levels. In other words, one must remember given information before one can display an understanding of that same information. One must understand the information before one can apply it in new and different situations. Furthermore, for one to analyse given information one should have the ability to apply it and ultimately before one can display creativity and evaluative skills, they must be analytical.
Bloom’s Taxonomy Hierarchy

Figure 1

Bloom’s classification of cognitive levels and abilities brings about the aspects complex and less complex cognitive abilities. The less complex abilities of remembering, understanding and applying are grouped into what is called the lower order. The more complex abilities of analyzing, evaluating and creating are grouped into what is known as the higher order being further qualified as higher order thinking. Resnick mentioned that higher order thinking is not something which fits into a strait jacket description but that it is through certain features and dispositions that one can take note of higher order thinking skills in a particular individual (http://www.nap).

Resnick mentions that among the features of higher order thinking are that it is a skill or ability whose path of action is not fully specified in advance. He says that in higher order thinking there is considerable effort and mental work which is involved in the kinds of elaborations and judgments requiring to be made (http://www.nap). To be a higher order thinker, an individual should operate more in the analyzing, creating and evaluating scales.
The link that was mentioned between literacy and thinking skills is supported by scholars like Resnick (1987) who say that defined in “low” senses is the ability to read and write in a manner consistent with the adult norms in a society. He then says that defined in the “high” senses literacy includes many of the critical and creative thinking skills and dispositions. Then Hiebert and Raphael (1996) say that literacy is the first step to the empowerment of the mind. This interpretation looks at literacy as a very decisive and important aspect to the functioning of one’s mind.

Literacy is indeed interpreted as someone’s ability to read and write. The UNESCO interpretation of literacy as given by Gray (1957), brings out this strand of literacy. In some cases literacy also entails general learnedness and familiarity with literature. The UNESCO definition of literacy is functional but also hinges on reading and writing abilities. However, some contemporary scholars like the New Lon group (1996) have challenged this view of literacy arguing that definitions of literacy which focus on the ability to read and write are consummate with a prescriptive and normative standard adding that such a view is monolithic.

The New London group, on the other hand, favours the idea of multiple literacies which champion the idea of literacy being dynamic, culturally and historically situated practices of using and interpreting diverse written and spoken texts to fulfill particular social purposes. Nevertheless, the argument of literacy that is being advanced above and henceforth is not an attempt to overlook the basic forms of literacy which ones ability to read and write. These skills of reading and writing are the building blocks of the more complex forms of literacy. They are the same skills which the pupils move with as they advance and progress in their grade levels.

Venezky (1991) argues in favour of higher levels of literacy when he compares it with functional literacy. He argues that functional literacy is in opposition to the values of liberal education whose goal is to prepare critical, reflective citizens who can make judgements on their own. So here Venezky is coming out as a proponent of the strand of literacy which prepares the inner-directed person. He goes on to say that higher levels of literacy are in line with liberal education which aspires to lift limits on individual accomplishments rather than to impose them.

Another notable interpretation of literacy worth noting is that of Freire (1973). He talks of higher levels of literacy when he says that to acquire literacy is more than to psychologically and
mechanically dominate reading and writing techniques. Further says that these reading and writing techniques should be further dominated in terms of consciousness and understanding of what one reads and writing what one understands adding that literacy involves one’s attitude of creation, re-creation and transformation.

Rajendran (2001) mentions that to be considered literate seems to require that students know more about how to think. The intertwining of literacy thinking skills is becoming more and more pronounced, thereby concurring with Rajendran (2001) when he makes the assumption that for the student to be considered literate requires that the student knows how to think.

Making an even more obvious contribution to the literacy and thinking skills relationship is Marzano (1991) who says that critical and creative thought are at the very core of literacy. Crabbe (1982) and Torrance (1980), shed even more light on critical and creative thought saying that closely related to critical thinking is creative thinking adding that creative thinking is geared more towards the production of information whereas critical thinking is geared more towards the analysis of information.

Literacy learning is done through language learning. The assumption by the Ministry of Education in Zambia is that literacy learning is intrinsic in language learning. Language teaching has got four major components which are reading, writing, speaking and listening. These components should be tools to aid the learners become literate and also develop their thinking abilities. One scholar (see Rajendran, 2001) was earlier on quoted saying that to be considered literate requires that students know how to think. So listening, speaking, reading and writing components of language teaching should also improve the higher order thinking abilities of the learners. After having reviewed programs that attempt to teach thinking skills, Gardner and Hatch (1989) state:

the relationship between language and thinking has been a topic of debate for a long time. However, nearly every program we have considered acknowledges the importance of language facility to effective thinking in one way or another. ..(nts) must become an adroit manipulator of language, logical forms, computer programs, or other symbol systems that, in effect, can serve as vehicles for thought (p.48).

Language is being confirmed more and more as a tool through which the thought process can be conveyed. It also seems that language teaching is being confirmed as something that can aid learners when it comes to the development of higher thinking abilities. In view of this, there
is need to understand how the four main components of language teaching: listening; speaking; reading; and writing relate to the development of thinking skills.

Block (1993) says that through reading, writing, speaking and listening transitory thoughts can be transformed into lasting principles. Rosenblatt (1978) and Smith (1978) also say that nerve endings of schema (cognitive structures) in the brain and in length and breadth as one discusses, writes, and reads about a concept. They also mention that this depth and breadth of the nerve endings eventually become wisdom as more and more dendrites (branches from nerve endings) are forced to intertwine.

Collins (1992) makes an interesting but serious contribution by saying that if students’ thinking is not ignited through writing, reading, speaking and ng, their (students’) wisdom is limited. So It is not merely engaging in the reading, writing, listening and speaking as routine processes of language learning that learners thinking can be enhanced. There should be a deliberate effort to use these tools in such a way that as the learners in them, their cognitive abilities are being enhanced. This is a presumption that if the human brain is not “exercised” through some challenging mental tasks, then the brain becomes dormant resulting in limitation in one’s wisdom. It is worth repeating that earlier on, it was mentioned that literacy is a very crucial and decisive step to the mind.

Cazden (1979) says that the use of oral language by both teachers and students serves to establish a classroom atmosphere that can either encourage or discourage certain types of thinking. He mentions questioning as one way that teachers can use speech to provoke a reaction from the learners. Redfield and Rousseau (1981) suggest that higher level questions appear to be helpful in enhancing student thinking. But Fairbrother (1975) and Wood (1977) point out that there seems to be considerable disagreement concerning what can be termed as higher-level questions.

There exist what are termed as recitation questions and construction questions. The former type being questions that require learners to simply retrieve information previously learnt and the latter that require students to construct new ideas or conclusions relative to information in long term memory. The questions that a teacher asks the learners in class elicits responses from the learners and they will also determine the type of responses to be given, that is whether recitation or construction. The bigger the percentage of high level questions the better for the
learners high level thinking development. The depth of the learners’ communication can be influenced by the caliber of questions that are asked by the teacher.

Marzano (1993) says that the most frequently used classroom method of enhancing thinking is questioning although the nature and use of these questions is yet another issue. Nash and Shiman (1974) add by saying that some elementary teachers thought that they were asking 12 to 20 questions every half hour when in actual fact they were asking between 45 and 150 questions. One may wonder here as to how many questions could be classified as relevant and thought eliciting out of this unbelievably huge number of questions to ask!

When Rosenblatt (1978) says that part of the definition of the reading process includes critical and creative thought, he provides a link between reading and the development of higher order thought development. In their reading interventions, Palinscar and Brown (1984) talk of reciprocal teaching. They say that reciprocal teaching is metacognitive in nature because it employs a process of cooperative question-asking between the teacher and the learner to highlight metacognitive demands of reading. Again, this is only possible when the teacher employs strategies that can bring out internal processes that are carried out during the reading process. Internal processes are the questioning, clarifying and predicting that a learner makes while reading a particular passage. The actualization or bringing to reality of such processes can be facilitated by the guidance of the teacher through asking the learners some questions. Short of this, reading remains a mere routine process.

The writing component of the languages is considered to be yet another vehicle for developing the thought process. Nickerson (1984) says that writing is viewed not only as a medium of thought but also as a vehicle for developing it. Writing is a complex task and requires of one to engage in high level thinking. After conducting a study of writing performance within a number of disciplines, Perkins (1981) found that the ability to produce a final copy easily and on the first draft is rare even among professionals. This is indeed a conviction that writing is a tool that summons a lot of thinking if one is to succeed. It goes to confirm that the process of initiating an idea and then putting it into written form is something that is complex. It, therefore, also requires one employ complex mental faculties and high cognitive thought.

The nature of the difficulty of the writing task renders it a powerful tool for enhancing thinking. It is still worth mentioning that it is not any piece of thinking that can serve as a tool to enhance the thought process. Hillocks (1986) says that it is only when teachers plan instructional activities
that result in a high level of student autonomy and interaction about problems faced in composing that writing instruction has a powerful effect on student thinking.

In all the components that have been discussed, the role of the teacher is mirrored. The teacher factor is indispensable even as we talk of the language components being tools for enhancing the thought process. After investigating language classrooms, Rajendran (1998a) found that all four language components were underutilized in promoting higher-order thinking skills. Hillocks (1986) suggests that only deliberate attempts by teachers to provide high level of student autonomy and interaction seem to have an effect on students thinking abilities. Perkins (1992) says that one of the ways of teaching for deeper understanding and thinking is to allow the students to play an active part in the teaching and learning process.

It follows, therefore, that in the equation of enhancing the thinking skills of the learners through language learning, the teacher factor comes out as being a common denominator which is also indispensable. Rajendran (2001) mentions that there are also many strategies and techniques available to language teachers which they could use. Teacher’s knowledge, skills and attitude for enhancing higher-Order Thinking Skills are also important factors that need to be taken care of in the equation of Language teaching leading to literacy and higher order thinking skills.

**Summary of Chapter**

This chapter focused on the issue of literacy and development of thinking skills in the learners through language learning. In this chapter, the Primary Reading Programme is discussed as an elementary literacy course that the Ministry of education introduced to the learners at an early stage of grade one through to grade seven. This literacy programme is aimed at imparting into the learners the skills of reading and writing.

The chapter brought out the point that to be literate one must of course know how to read and to write. It further talked of literacy as being beyond the ability to read and to write. The issue of thinking skills being an indication of literacy was discussed also. The chapter opened the doors to the discussion on a more advanced strand of literacy, that advanced strand is the literacy which explores the cognitive abilities of an individual. In other words, the literacy that promotes the development of a whole individual who is an asset to the society.
The chapter also discussed the fact in Zambian schools, literacy learning is done intrinsically as language learning is taking place. The Bloom’s taxon as a means to determine the learners thinking levels has also been outlined.

As learners learn, they are guided and molded by the teacher. Therefore, the teacher aspect as an important and indispensable element was alluded to.
CHAPTER 3

3.0 METHODOLOGY

3.1 Research Design

A research is a systematic attempt to provide answers to questions, (Tuckman, 1978). Research can either be quantitative or qualitative. This particular study is qualitative but the researcher borrowed quantitative techniques to analyse simple data. Among the characteristics of qualitative research as outlined by Orodho and Kombo (2002) quoted in Kombo and Tromp (2006) are:

Qualitative approach seeks to describe and analyse the culture and behaviour of humans and their groups from the point of view of those being studied. Qualitative research uses the natural setting for instance, a classroom setting and not a laboratory. It relies on a research strategy that is flexible and interactive. This includes interviewing, focus group discussions, observations and so on.

A research design is a plan of the research. In the words of Kombo and Tromp (2006) a research design is the structure of the research and it is used to structure the research, to show how all of the major parts of the research project work together to try to address the central research questions. This view of what a research design is, is supported by Orodho (2003) quoted in Kombo and Tromp (2006) who says that it is a outline or plan that is used to generate answers to research problems.

A case study design was used. A case study is an in-depth study of a single unit, such as one individual, one group, one organization or one program A case study focuses on one instance or just a few instances as opposed to a wide spectrum. As Denscombe (n.d) says, a case study is the opposite of any mass study. In a case study the aim is to illuminate the general by looking at the particular. The goal of a case study is to arrive at a detailed description and understanding of an entity.

Ary et al (2006) outline a number of attributes that a case study has. A case study focuses on a single unit. It produces an in-depth description of that unit and it is anchored on real life. A case study provides rich holistic description of context, themes and issues. In addition, it is an approach which allows the researcher to use multiple data collection techniques. Therefore, this particular study focused on a group of 60 Grade twelve learners in order to determine their cognitive skills in listening comprehension.
3.2 Study population

The study population was drawn from the universal population. Universal population is that larger group of individuals, or items from which samples are derived. Kombo and Tromp (2006) refer to population as an entire group of persons or elements that have at least one thing in common. Ary et al (2006) define population as all the members of any well defined class of people, events or objects. Additionally, while the small group that is observed is the sample, the larger group about which the generalization is made is called the population. The universal population in this case are all the grade 12 pupils in Central Province. This particular group has been picked because the proposed study is aimed at establishing the extent to which the grade 12 pupils have developed their cognitive abilities. The target group was tested towards the end of the year (in October 2010).

3.3 Sample and sampling procedures

A sample population is derived from the general population. Best and Kahn (2008) describe a sample as a small proportion of the population that is selected for observation and analysis. Peil (1982) says sampling is the selection of a part to represent the whole. A method is used to come up with a sample from the wider population.

In this study, a sample of 60 grade 12 pupils was picked. The group of 60 was made up by randomly selecting 10 pupils from six selected high schools. The high schools were all selected from within Kabwe District in Central Province. There is a total of 11 high schools in Kabwe. Out of these 11, 6 high schools were selected. The selection was based on a simple coding method. The 11 schools were listed and then against each school a letter was written, either “A” or “B”, as indicated in figure ( ) below.

<table>
<thead>
<tr>
<th>NAME OF SCHOOL</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angelina Tembo</td>
<td>A</td>
</tr>
<tr>
<td>Chindwin High school</td>
<td>B</td>
</tr>
<tr>
<td>Bwacha High School</td>
<td>A</td>
</tr>
<tr>
<td>Kalonga High School</td>
<td>B</td>
</tr>
<tr>
<td>Caritas Secondary School</td>
<td>A</td>
</tr>
<tr>
<td>School Name</td>
<td>Code</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Mukobeko High School</td>
<td>B</td>
</tr>
<tr>
<td>Raphael Kombe High School</td>
<td>A</td>
</tr>
<tr>
<td>Jasmine High School</td>
<td>B</td>
</tr>
<tr>
<td>Kabwe High School</td>
<td>A</td>
</tr>
<tr>
<td>Steven Luwisha Secondary School</td>
<td>B</td>
</tr>
<tr>
<td>High Ridge High School</td>
<td>A</td>
</tr>
</tbody>
</table>

All the schools that were coded “A” were selected. So the following schools were selected for Data collection:

1. Angelina Tembo Secondary School
2. Bwacha High School
3. Caritas Secondary School
4. Raphael Kombe High School
5. Kabwe High School

From each one of the schools above, 10 pupils were selected. Simple random sampling was used to select the pupils. The researcher used the counting system to come up with the required number of samples. The interval on which to pick a learner depended on the number of grade 12 classes in the school and also the number of pupils in each class. For example, in a school where there are five grade 12 classes, the researcher picked two pupils from each class to make up the required sample of 10 pupils.

3.4 **Research Instruments**

The study used two standardized reading comprehension One was drawn from a grade 12 text book and another one was taken from a past paper from the examinations council of Zambia
3.5 Data Collection Procedure

The reading comprehension passages were administered to the sampled learners. Each of the 60 learners answered questions that were asked at the end of each comprehension passage.

The Reading comprehension passages

Two standardized reading comprehension passages were used. Each of the passages was followed by 6 questions. The questions were framed in line with Bloom’s taxonomy of cognitive abilities. The questions progressed in order of difficulty starting with the ones in the remembering category and ending with those in the evaluation levels. This helped the researcher to be focused on what was to be established. Depending on the answers given by the respondents, the researcher would be accorded the opportunity to determine the learners’ cognitive levels.

3.6 Data Analysis

The data that will have been collected will be analysed thematically. There are six distinct themes that are involved in this study. These themes are derived from Bloom’s taxonomy and they are as follows: knowledge; comprehension; application; analysis; synthesis and evaluation. The questions that the respondents will answer are formulated according to the six levels outlined above. Each of the 120 respondents will answer each of the six questions.

3.7 Summary of Chapter

The study in question embarked on qualitative research. Data was collected through the sampled learners responding to questions that were generated after a reading passage. The questions were open-ended and provided the respondents with the opportunity to give responses freely. From each of the six schools, ten pupils were randomly sampled. Two reading comprehension passages were used as tools for collecting data. One reading passage was extracted from a grade twelve English language text book. The other reading passage was extracted from a past grade 12 final examination paper for English language.
CHAPTER 4

4.0 PRESENTATION OF FINDINGS

4.1. Findings of the study

This chapter presents findings of the study on the investigation of learners cognitive levels through reading comprehension passages. The 60 sample learners were subjected to responding questions that were based on two standard comprehension passages. The questions were formulated in line with the Bloom's taxonomy of cognitive abilities. The findings are presented in six major sections and this is in line with the themes under which the questions were formulated. It must be remembered that the objectives of this study were to find out which category of reading comprehension questions the grade 12 learners are able to answer and which categories of reading comprehension questions the grade 12 learners are not able to answer. The targeted respondents were those that are about to complete their high school education and about to filter into various sectors of the society.

The first part of this presentation brings findings on the responses that were given on all the question categories in the first passage that was extracted from a Grade 12 English Language text book.

4.1.1 The first question was as follows:

**How many nights did the writer spend in the campus hospital?**

The above question is in the remembering category of m's classification of cognitive abilities. The remembering category of the cognitive abilities requires of an individual to be able to recall or remember the information that has been previously acquired. Out of the 60 respondents, 46 gave correct responses and 14 gave wrong responses.

4.1.2. The second question was:

**Depending on your understanding of the passage that you have read, indicate whether the following statement is true or false:**

**The writer says that his appendix was removed because doctors said that it was the cause of his abdominal pains.**

For this question, 34 respondents gave correct answers and 26 gave wrong answers.
4.1.3 The next question was in the application category and it was phrased as follows:

**Give one example of food and explain how this particular food that you have mentioned can cause health problems to an individual.**

The respondents were expected to give their own example of some food and then explain how that particular food can cause health problems to an individual. Respondents would thereby be displaying their ability to apply the gained knowledge in a different and new situation.

Out of the 60 respondents, 22 gave satisfactory responses while 38 did not.

4.1.4 The question that followed was in the analysis category and it read as follows:

**Imagine that you were a nutritionist. List down 5 points that you would use to advise the writer’s family on good diet.**

For this question which was in the analysis classification, the respondents needed to come up with their own lists of what they thought was in line with a good diet. A respondent who was able to do so was exhibiting ability to analyse information or knowledge earlier on gained.

35 respondents gave satisfactory responses while 25 did not give satisfactory answers.

4.1.5. The fifth question was in the creation category and it read as follows:

**Paragraph 2 outlines the meals that the writer and his family used to have. Basing on this paragraph, draw a table with the necessary number of columns. In the columns indicate a particular meal and the types of food corresponding to that meal.**

35 respondents were able to give correct responses. 25 respondents did not give correct responses.

4.1.6 The last question was in the evaluation category and it was as follows:

**In your opinion, what is the writer’s feeling concerning the foods that he was eating.**

For this question, 27 responded satisfactorily while 33 respondents did not do so.

The table below reflects the correct responses both in numbers and percentages.
<table>
<thead>
<tr>
<th>Category</th>
<th>Correct responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Figures</td>
</tr>
<tr>
<td>Remembering</td>
<td>27</td>
</tr>
<tr>
<td>Understanding</td>
<td>34</td>
</tr>
<tr>
<td>Application</td>
<td>22</td>
</tr>
<tr>
<td>Analysis</td>
<td>35</td>
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<tr>
<td>Creation</td>
<td>35</td>
</tr>
<tr>
<td>Evaluation</td>
<td>27</td>
</tr>
</tbody>
</table>

**Figure 2**

The second part of this presentation brings findings on the responses that were given on all the question categories in the second passage that was extracted from a past examination paper for Grade 12 under the examinations council of Zambia.

4.1.7 Question 1 was on remembering or recalling information that had been previously learned. The question read as follows:

**What is Carmen Montero’s expertise?**

From the 60 respondents, 22 responded well and 38 did not.

4.1.8. The second question was on understanding. It read as follows:

**What percentage of rural indigenous children aged between 6 and 11 years do not attend school in Peru?**

Out of the 60 respondents, 22 of them gave correct responses and 38 did not.

4.1.9 The third question was in the knowledge application category. It read as follows:

**In paragraph four, the writer mentions sexual discrimination as one of the reasons for low school attendance by girls. In your own words, give two examples of sexual discrimination.**

For this question, 15 respondents gave correct responses while the other 45 did not.

4.1.10. Question four was in the category of analyzing. The question read as follows:

**In the last paragraph it is mentioned that the most common form of discrimination faced by girls is domestic and farm work. In your own words, explain how these two activities can be forms of discrimination to the girls.**

Out of the 60 respondents, 15 gave correct responses but 45 of them did not do so.

4.1.11 Question five which was in the creation category read as follows;

**From the passage that you have read, pick out at least 5 things which make girls in Peru fail to attend school. For each of the 5 things that you mention, suggest a solution.**
Present your work in form of a table with the required number of columns and rows. To make your work systematic and orderly, label the columns “problem” and “solution” accordingly.

32 respondents gave the correct response and 28 did not do so.

4.1.12. The sixth question was in the evaluation category. It read as follows:

**Pick out one solution from your answers in question 5** How effective will this particular solution be to improving girls education in Peru

18 respondents wrote correct responses. The other 42 did not.

The table below reflects the correct responses both in numbers and percentages.

<table>
<thead>
<tr>
<th>Category</th>
<th>Correct responses</th>
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<tbody>
<tr>
<td></td>
<td>Figures</td>
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<tr>
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<td>Understanding</td>
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<td>Analysis</td>
<td>15</td>
</tr>
<tr>
<td>Creation</td>
<td>32</td>
</tr>
<tr>
<td>Evaluation</td>
<td>18</td>
</tr>
</tbody>
</table>

**Figure 3**

**4.2 SUMMARY OF CHAPTER**

Chapter four presented findings from the study on the investigation of learners cognitive levels through reading comprehension passages. There were two standardized reading comprehension passages. The questions were formulated according to themes in the Bloom’s taxonomy of cognitive abilities. The findings were presented in six major sections in line with the mentioned taxonomies. Each question was analyzed to find out how many of the 60 learners got it right and how many got it wrong. Since the major objective of this study was to investigate the cognitive levels of the grade twelve.

From the foregoing chapter, it has been observed that grade twelve learners, who are on the threshold into society, are not literate enough to display the higher levels of cognitive skills. In most cases, the respondents were not even able to give the correct response to a question in the recalling category. The recalling level falls at the lowest level in the cognitive ladder. This situation among the learners who are about to go into the society that expects a lot from them is
alarming. It is possible that this expectant society receives high school graduates whose thinking abilities are not only low but who are not li enough to fulfill society’s expectation. The negative impact of such a scenario cannot be over emphasized.

Like Scriven and Paul (CriticalThinking_org-Defining criticalThinkingmht) have stated, shoddy thinking is costly, both in money and in quality of life.
CHAPTER FIVE

5.0 Discussion of findings

Before the discussion on the findings can begin, it must again be mentioned that the objectives of this study were to investigate which categories of questions the learners are able to answer and which ones they are not able to answer. The answers the learners gave portrayed their cognitive levels. The English Language component, reading comprehension specifically, was used as a tool to measure this. Two standardized reading comprehension passages were used as the tools to measure. Each reading comprehension passage was followed by a set of six questions that the respondents were expected to answer. The six questions were formulated in line with the Bloom’s classification of cognitive abilities. So the questions ranged from the remembering or the recall categories to the creation and evaluation categories.

5.1 The first question in both passages was on knowledge or recall level of Bloom’s taxonomy. In this level of cognitive abilities the learner was recalling or recognizing information in the approximate form in which it was learnt. Knowledge level questions are asked mainly to test whether a student has gained specific information. This happens to be the lowest level in the hierarchy of Bloom’s classification of cognitive abilities. The question said, “What is Carmen Montero’s expertise?” This question required the respondents to pick the answer from the reading passage and be able to report that Carmen Montero is a rural education expert. This is what the information in the passage is saying. Only 22 respondents were able to give the correct response. This corresponds to 36% of the total respondents. Similarly, in the other reading passage, the question was, “How many nights did the writer spend in the campus hospital?” The response to this question is that the writer spent one night in the campus hospital. Again the answer is clearly reflected in the passage. 27 of the 60 respondents managed to identify this response from the passage. This means only 45% of the total respondents got it right. In both cases, less than half of the respondents were able to perform this task of recalling or recognizing information.

On the basis that the two questions were in the knowledge or the recall category which is the easiest, one can say that the outcomes on correct responses was not good.

5.2 The second question in both passages was on comprehension or understanding information. This level of Bloom’s taxonomy requires that learners go past simply recalling facts and be able to understand and interpret the information and facts based on prior learning. In
the first passage the question was, “Depending on your understanding of the passage that you have read, indicate whether the following statement is true or false:

The writer says that his appendix was removed because doctors said that it was the cause of his abdominal pains. It would be easy for one that has understood the passage to give the correct response.

In the second passage, the question was, “What percentage of rural indigenous children aged between 6 and 11 years do not attend school in Peru? According to the passage, only 25% of the children aged between 6 and 11 years do attend school. It, therefore, means that the other 75% of children in the same age group do not attend school. To be able to get this response of 75%, the respondent should have understood the passage. It calls for interpretation of the information. It also calls for one to be able to go beyond merely knowing that only 25% of the children go to school. It calls for one to be able to simple mathematics that there is a 75% somewhere in order to get to the 100%.

The outcomes of the first passage as regards this particular question indicate that 34 respondents got it right. This means 56% of the total respondents of 60. The outcomes the second passage reflect that 22 respondents, which is 36%, gave the correct response. So for the second passage, the response was not good. Less than half the respondents were able to identify the 75%. The 56% scored for the other question still leaves much to be desired. The category of the question(s) under discussion is still n the lower levels. This means that they are questions that should have reflected high scores on the part of the respondents as opposed to the reality.

5.3 Question three was in the category of knowledge application. Application questions are those where learners have to actually apply or use the knowledge that they have learned. The question in passage 2 required the learners to give their own examples of sexual discrimination. This was after reading the whole passage and getting in on the problems that are faced by the girls in Peru. If a learner has clearly understood the information and is able to interpret it then that particular learner will be able to give a correct answer to such a question. Additionally it means that this learner has mastered a combination of the two levels so far discussed and these are recalling information and facts and then being able to understand the facts and the information. After that the learner can apply the facts and information to the happenings in society.
The question in the first passage was, “**Give an one example of food and explain how this particular food that you have mentioned can cause health problems to an individual**”. The respondents were required to mention any food type that they think can cause problems to the health of an individual. In addition to giving examples of the food type, the respondents needed to explain how this kind of food can be harmful to the health of an individual. 22 out of 60 respondents gave responses that indicated ability to apply knowledge. This is equal to 36% of the total number of respondents. The question in the second passage was as follows, “**In paragraph four, the writer mentions sexual discrimination as one of the reasons for low school attendance by girls. In your own words, give two examples of sexual discrimination.** This is also a question that sought to exploit the respondents’ ability to apply particular knowledge gained. It required of the respondents to think of practices that they could see as sexually discriminatory. 15 respondents, translating to 25% of the 60 respondents expressed the ability to do so.

From both reading passages, responses were not good. Less than half the respondents were able to apply new knowledge in new and independent situations.

5.4 The fourth question in the first passage was “**Imagine that you were a nutritionist. List down 5 points that you would use to advise the writer’s family on good diet.**” In the second passage the fourth question was, “**In the last paragraph it is mentioned that the most common form of discrimination faced by girls is domestic and farm work. In your own words, explain how these two activities can be forms of discrimination to the girls**”. Both questions required of the respondents to be analytical. This meant that the respondent needed to “climb” the ladder a step further than the knowledge step, understanding step and the application step (see figure 1). The respondents were think of what foods can make a good diet and then come up with information, in point form, that would serve as a guide to good diet. For the other question, the respondents were required explain, according to their own understanding, how the identified activities pose as forms of discrimination. This was meant bring out the analytical abilities in them by way of examining the above.

The responses indicate that from the first reading passage, 35 of the 60 respondents were able to come up with satisfactory responses. From the second passage, 15 respondents did manage to give satisfactory responses. This reflects 58% and 25% respectively.

5.5 Question five was creative. It sought to bring out the respondents’ skill of creating new products or new point of view in relation to what has learnt. In the first passage, the
question was, “Paragraph 2 outlines the meals that the writer and his family used to have. Basing on this paragraph, draw a table with the necessary number of columns. In the columns indicate a particular meal and the types of food corresponding to that meal”.

In the second passage the question was, “From the passage that you have read, pick out at least 5 things which make girls in Peru fail to attend school. For each of the 5 things that you mention, suggest a solution. Present your work in of a table with the required number of columns and rows. To make your work systematic and orderly, label the columns “problem” and “solution” accordingly.

Both questions required of the respondents to be able present their information in table form. In order to do so, the respondents needed to combine the abilities and cognitive abilities from the lower levels starting from the understanding level coming upwards. The creativity in the respondents is, therefore, dependant on the lower ranks of the cognitive ladder (see figure 3 ). For the first question, 35 from the 60 respondents displayed their creative abilities while in the second passage, 32 from the 60 respondents were able to do so.

5.6 The last question for both passages was evaluative. In the first passage the question was, “In your opinion, what is the writer’s feeling concerning the foods that he was eating” In the second passage, the question was, “Pick out one solution from your answers in question 5 above. How effective will this particular solution be to improving girls education in Peru. 27 respondents out of 60 managed to give satisfactory on the question from the first passage while 18 respondents out of the 60 were to give satisfactory answers for the question from the second passage. This reflects 45% and 30% respectively.

5.7 Summary of the Findings

The respondents were expected to display their evaluative abilities by justifying their responses. For the respondents to be able to do so they should be in possession of all the other five skills. An individual must be in possession and mastery of all the other five cognitive abilities to be able to have the evaluative abilities. In other words, an individual must remember particular information. Furthermore, he/she should show understanding of information through being able to explain ideas or concepts, interpreting and even summarizing. One should then be able to move a step up the ladder by being able to apply that information in new and familiar situations. Beyond the level of knowledge application are the analysis, creation and evaluation levels. These cognitive levels are higher on the Bloom’s “ladder” of cognitive abilities but are
reachable. An individual is able to reach the topmost p of this ladder by climbing through the cumulative steps.

5.7 Summary of the discussion

This chapter discussed the findings on the topic meant to investigate of learners thinking skills (levels) through reading comprehension. The twofold ob of this study sought to find out which category of reading comprehension questions the 12 learners are able to answer and which categories they are not able to answer. The reading comprehension passages were drawn from a grade 12 text book and also a grade 12 past examination paper. Each passage had six questions which were formulated in line with loom's classification of cognitive (thinking) abilities. The questions that were asked were on remembering or recalling information, understanding information, application of information, analysis of information, creation and evaluation of information and ideas.

The findings from this study revealed that the learners were not comfortable with any level of the cognitive abilities whether the lower level or the high level. At every question level, the responses that were gotten reflected a rather low score. This goes to confirm that the learners are not that competent in any of the levels of the cognitive abilities. Low scores on responses to questions on remembering or recalling information are mony to this view (see figures 1 and 2). So going by the set objectives, one can say that the learners at the level of grade 12 are not able to competently handle questions from any of the cognitive levels.
CHAPTER SIX

6.0 Conclusion and Recommendations

6.1 Conclusion

The objectives and research questions that sought to establish which questions learners are able to respond to after reading a comprehension passage were nevered. The general picture from this study was that while the learners were able to answer the categorized question to some extent, they were not able to do so to a convincing level. The questions were phrased using the Bloom’s taxonomy framework. This framework helped to have questions that ranged from knowledge or recall level through to the level of information evaluation. The questions that were asked were based on two reading passages that are familiar to the learners. One passage was extracted from a textbook which the learners use in their English Language lessons. The other reading passage was extracted from a past grade twelve examination paper. As earlier on said, the responses that the learners gave left much to be desired. In terms of percentages the correct attempts fell in the range of 30% and 58%. Moreover, even responses on the lower level of recalling or remembering information attracted as little as 30% correct responses. According to Bloom’s classification of cognitive abilities, recall questions are those that require learners to recall or recognize information and ideas in the approximate form in which they were learnt. Even for this category the majority of the learners were not able to come up with the answers (see figures 1 and 2).

The figures in the two tables also reflect even lower responses for questions on analysis, application and evaluation. This shows that he learners’ abilities to analyse information, or to apply information, let alone to evaluate is below expectation. Earlier on it was mentioned that the fast growing environment is in urgent need of not only literate people but also those that have a desirable level of thinking skills. It was also pointed out that to be prepared for the demands of the knowledge economy, students need to know how to use their knowledge and skills by thinking critically, applying knowledge to new situations, analyzing information, comprehending new ideas, communicating, collaborating, solving problems and making decisions (see, Salpeter, 2003).

The cognitive skills that the study sought to establish in the learners are, therefore, an indispensable aspect and among the pillars of both personal and national development. It was
also stated earlier on that grade 12 learners were picked as the focus of study for this particular study due to the fact that they form a group that is on the threshold into the world which is in need of people who are literate and in possession of critical and creative thinking skills. It is these grade 12 learners under focus that filter into various categories of the society. It goes without saying that their thinking abilities and levels have an impact on whatever sector of society they filter into. It is, therefore, imperative that the learners’ cognitive abilities are on the higher side.

As mentioned earlier on by Freire (1973), literacy involves one’s attitude of creation and transformation, these are also very important qualities in an individual to be part and parcel of the development process whether individual or for the society at large. The issue of learners graduating from secondary or high school education enters other areas of society, therefore, needs to be amplified and treated with the seriousness that it deserve

6.2 Recommendations

In light of the findings of the study, the following recommendations are made:

The literacy courses that the Ministry of Education introduced at the basic levels of learning should be extended to the grades beyond. The literacy courses should be taught even to grade seven. While the literacy courses that are currently being taught are meant to take the learners to a level of literacy that enables effective learning across the curriculum (see Ministry of Education, 2002), deliberate efforts should be made by the Ministry of Education to provide a comprehensive package of the literacy courses that should be offered to the learners in the higher grades.

The recommended literacy courses should be designed in such a way as to help the learners to develop their cognitive abilities. This can be done either in the same manner that the current literacy courses are being offered to learners in grades one to seven, that is, taught as separate and stand-alone courses. On the other hand, it can be done through the infusion method where the lessons are crafted to bring into content instruction an explicit emphasis on skillful thinking so that learners can improve the way they think (see and Parks, 1994). This means that the teaching of literacy to promote the development of learners’ thinking skills is done through
what already exists. In this case, language teaching can be taken as the already existing mode into which the teaching of thinking abilities can be infused.

6.3 Recommendations for further study

The present study recommends the following for further study:

A study should be carried out to determine how the teaching of language is done in relation to developing the learners thinking abilities. Since language teaching has a number of components, it is further recommended that separate studies are done in line with the various components of language teaching especially at high school level. So a study to determine how composition teaching helps the learners to develop their thinking skills should be carried out. Another study to determine how the teaching of structure helps the learners to develop their thinking skills should be carried out. Another study to determine how comprehension and reading help learners to develop their thinking skills is also recommended. Another recommended study for the future is to determine whether the types of questions that teachers tend to ask in class during their teaching promote thinking among the learners.
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APPENDICES

DATA COLLECTION INSTRUMENTS

Appendix i

READING COMPREHENSION PASSAGE 1

Dear respondent,

The researcher of this study is a postgraduate student pursuing a Masters programme in Literacy and Learning at the University of Zambia in the school of Education.

I humbly request you to participate in this study by responding to the activity below. The information that will be gathered from this exercise will be treated with the strictest confidentiality and will be used purely and only for academic purposes. In addition, the questions that you will answer are based on the comprehension passage that you will read. You are, therefore, encouraged to feel very free when answering the questions.

__________________________________________________________

Instructions:

1. Do not indicate your name on any of these papers.
2. Read the passage below and then answer the questions that are following.
3. Write all your answers on the question paper in the spaces provided and on the attached plain sheet of paper.

HEALTH AND NUTRITION

By the time I was six or seven years old, my body was rebelling against some of the food I was given. I had frequent stomach aches and was constipated so that I thought everybody in the world had hard painful bowel movements. Needless to say, neither I nor my parents connected these signs of distress with the meals served in our home.

Our family ate the usual foods of the normal middle-class American family. This was during the 1950’s. My mother thought she was giving the best of care to her children by giving us eggs and sausages for breakfast, sandwiches prepared with slabs of cheese, bologna or ham bracketed in slices of white bread smothered with mayonnaise and topped with a leaf of lettuce for lunch. For dinner we feasted on roast beef, hamburgers, hot dogs, pork chops or fried chicken always
with potatoes baked, boiled or mashed and potions of canned fruits and canned vegetables. And every meal was washed down with big glasses of creamy whole milk.

In those days the importance of dietary fiber was unknown to the average home maker as were the hazards of eating excess fat, protein, table salt, and cholesterol. But our diet certainly wasn’t deficient in calories.

When I went off to college food was plentiful, and I helped myself to more of the same all-American meals my mother had been feeding me back home. One morning about three months in my freshman year I woke up feeling confused and weak. When I started out for class I was so disoriented that I had trouble finding my way to the building. By the time I had gone to class and returned to my room in the dormitory I had managed to get hit by two cars. The collisions were minor and did me no harm, but that afternoon I was unable lift my left arm and leg.

My condition alarmed some of my dormmates, and they called for help. After an overnight at the small campus hospital, I was moved to a large city hospital. There the best specialists gathered around, and began to investigate. They did cerebral angiogram, and it revealed that a small arteriosclerotic plaque had closed a critical artery serving the right side of my brain, in the region that controls movements of on the left side of my body. The medical diagnosis was Cerebral Vascular Accident. Most of you know the condition as stroke—something that’s supposed to happen only to older people. They’re not common among young folk, but strokes and heart attacks do affect more than a thousand teenagers every year in the United States.

The stroke completely paralyzed the left side of my body. After a week, my best effort on that side of the body involved moving my left thumb a quarter of an inch. After several months, I recovered partial use of my arm and leg, and from that point on my progress was rapid. I was young; my good fortune allowed other areas of my brain to take over the tasks that the tissues deadened by the stroke were no longer capable of performing. But to this day I still walk with a slight limp.

My experiences in the hospital gave decisive impetus to my decision to become a physician. In my family, doctors had always been regarded as ‘gods’, and being a doctor had always been a goal beyond my wildest dreams. Extensive observations of the work that my dedicated physicians did while I was hospitalized convinced me that they were indeed entirely human, and that what they were doing I could do too.
I returned to classes at the university with a new enthusiasm for learning and a strong purpose in life—medicine. How many eighteen-year-olds face death so closely, and then get a second chance? However, still unaware that the foods I ate were a threat to my health, I continued to eat the same food I always enjoyed. By the time I entered medical school I was getting fat. And I didn’t feel very well.

After graduating from medical school I moved with my wife, Mary to the state of Hawaii, to further my education as a surgical resident, and, about that time, the belly pains that had troubled me since childhood became more severe. Often I had to curl up in my bed in a fetal position, desperately hoping for relief. During one three-month period, I was sick everyday. I sought a surgical opinion and, as you might expect, I was given a surgical solution: that same afternoon I had exploratory abdominal surgery. No clear diagnosis was made at that time, although the surgeons removed my appendix just in case.

The reason for my abdominal pains remained a mystery to me and my doctors. Nobody asked what kinds of foods I was eating. I suspect now that if I had told them about the three hot dogs covered with hamburger chili sauce that I usually ate as an evening snack no one would have raised an eyebrow.

(From: Senior Secondary English Language Course for Zambia: English 12)

Q1. How many nights did the writer spend in the campus hospital?

Q2.

Depending on your understanding of the passage that you have read, indicate whether the following statement is true or false:

The writer says that his appendix was removed because doctors said that it was the cause of his abdominal pains

Q3.
A. Do you agree that some foods can cause problems to someone’s health?............................

B. If you agree with A, give an example of one food type that can do so.

C. Explain in not more than 10 sentences how the food you have mentioned in B. (above) can cause health problems.

**Note; Mention solid food not drink.**

Q4

A. Imagine that you were a nutritionist. List down 5 points that you would use to advise the writer’s family on good diet.

Q5. In your opinion, what is the writer’s feeling concerning the foods that he was eating.

Q6. Paragraph 2 outlines the meals that the writer and his family used to have. Basing on this paragraph, draw a table with the necessary number of columns. In the columns indicate a particular meal and the types of food corresponding to that meal.

**Note: Answer this question on the attached sheet of paper.**

Appendix ii

READING COMPREHENSION PASSAGE 2

Dear respondent,

The researcher of this study is a postgraduate student pursuing a Masters programme in Literacy and Learning at the University of Zambia in the field of Education.

I humbly request you to participate in this study by responding to the activity below. The information that will be gathered from this exercise will be treated with the strictest confidentiality and will be used purely and only for academic purposes. In addition, the questions that you will answer are based on the comprehension passage that will
read. You are, therefore, encouraged to feel very free when answering the questions.

Instructions:

1. Do not indicate your name on any of these papers.
2. Read the passage below and then answer the questions that are following.
3. Write all your answers on the question paper in the spaces provided and on the attached plain sheet of paper.

PERU

About 8 million Peruvians, one third of the entire population, live in rural areas. Sixty percent of them are poor, while 37% live in extreme poverty. Almost 2 million are school age children and adolescents. Carmen Montero, of the Institute of Peru Studies, a rural education expert and member of Peru’s Education Forum, says deficiencies in these children’s education, range from lack of schools in isolated districts to an unsuitable curriculum, since an urban education model is used in farming communities.

For the last few decades, much of Peru’s population has been flocking to cities, especially Lima, the capital, where one-third of the nation’s population lives, in a vain search for employment and a better life. The national government has concentrated resources in Lima, virtually ignoring rural social-economic development, including the right to education. In rural communities where schools exist, many students lack access to full primary education. Montero is of the opinion that at least 20% of rural schools fail to offer all the six grades required to complete primary school. Furthermore, very few students who manage to complete primary school proceed to secondary school, let alone post secondary education, because these facilities simply do not exist in rural communities.

Girls from rural districts tend to occupy the lowest rung on the education ladder. The Titikaka Network, an education and communications organization based in Puno, in the southern highlands, says that, while girls from the cities spend an average of 8.3 years in school, their rural counterparts attend classes for just 3.7 years. Literacy among rural women is 36%. According to the education coordinator for the Amazon Development (LUPUNA), only 25% of rural indigenous children between ages 6 and 11 attend school. Betsy Vasquez Navarro, of LUPUNA, thinks that there are several reasons for such a situation. "The teachers are mestizos
(mixed race Peruvians) and speak only Spanish, but the students cannot understand them and are bored”, Vasquez admits.

Again, attendance is lowest among girls, both because of the language difference and for socio-cultural reasons. Experts say the region’s girls are apt to suffer low self esteem since they are considered inferior in both their families and in the There is so much sexual discrimination at home and in school, which easily lea fusion in the classroom.

Economic conditions can also dictate whether a girl is allowed to attend classes, not only in the jungles ,but also in the outlying districts across the country. Girls are more likely to be kept home to do household chores ,while, boys who traditionally labor in the fields, are only required to work in the planting and harvesting seasons. In the Altiplano Region around lake Titikaka ,many girls remain at home to do domestic and farm work. This ,says Eliana Alarcon Portugal, of Titikaka Network, is the most common form of discrimination faced by girls in the region .Girls are known to be busier than boys because their responsibilities are permanent and year round .Carmen Montero believes rural education will improve for both girls and boys, but it will take time, effort and money. She says that the current model ,based on urban timetable, must be made flexible to take into account planting and harvest seasons. To increase attendance among girls, parents and teachers must work together to end der discrimination at home and in school. A serious government commitment is needed to e that texts are available for rural students, that children receive supplemental nutrition in school, that more learning centers are built ,and that the overall quality of education is im .


Answer the following questions:

Q1. What is Carmen Montero’s expertise?

Q2. What percentage of rural indigenous children aged ween 6 & 11 years do not attend school?

Q3 In paragraph 4, the writer mentions sexual discrimination as one of the reasons for low school attendance by girls. In your own words, give two examples of sexual discrimination.
Q4 In the last paragraph, it is mentioned that the most common form of discrimination faced by girls is domestic and farm work. In your own words explain how these two activities can be forms of discrimination to the girls.

Q5. From the passage that you have read, pick out at least 5 things which make girls in Peru fail to attend school. For each of the 5 things that you mention, suggest a solution. Present your work in form of a table with the required number of columns and rows. To make your work systematic and orderly, label the columns “Problem” and “Solution” accordingly.

**Answer this question on the attached sheet of paper.**

Q6. Pick out one solution from your answer in Q5 above. How effective can this particular solution be to improving girls education in Peru.