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Evidence Of Students' Performance In Expository Passages And Non-Mathematical Documents: Data From The Pilot Version Of The Iea Reading Literacy Research Study

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ABSTRACT

This article discusses evidence of students' performance in responding to comprehension questions on expository passages and non-mathematical documents (performance on the narrative passages and the majority of the scientific/mathematical documents has been discussed elsewhere). The data is from the pilot version of the IEA Reading Literacy Research Study which is currently being carried out by about forty countries including Zimbabwe.

Basically the results discussed here reveal that students performed better on the documents and on the expository passages which had no science content. Students were also better able to tackle questions on the literal level of understanding as opposed to those on the interpretative or evaluative levels. We conclude by raising a number of further questions whose answers will be provided by data from the main study.

Introduction

The abbreviations IEA stand for International Association for the Evaluation of Educational Achievement. IEA is a non-profit-making association incorporated in Belgium for the purposes of:

1. undertaking educational research on an international scale;

2. promoting research aimed at examining educational problems in order to provide facts that can help in the ultimate improvement of educational systems;

3. providing the means whereby research centers in the various participating countries can undertake co-operative research projects.

Between 1988 and 1992, the IEA will be involved in co-ordinating the Reading Literacy Research Study being undertaken by forty countries including Zimbabwe and which is being co-ordinated at the University of Hamburg, Germany. The reasons for Zimbabwe joining this international collaborative research study are discussed elsewhere in greater detail.

This Reading Literacy Study had a pilot version which was done in October-November, 1989. The main study is to be done in March, 1991. In this article we focus on some of the results of the pilot test. Specifically the focus is on students' performance on expository passages and on documents that were non-mathematical in content. All together, three types of passages were set for this test: the narrative, expository passages and documents such as timetales, flow charts, etc. (discussion of performance on the narrative passages and on mathematical documents was done elsewhere). Students had to read and then answer comprehension questions on these given passages. The questions were either on the literal, interpretative or evaluative level of understanding.

In all, 223 students participated in this study. The test was divided into four booklets each averaging thirty-seven pages. Some passages appeared in all four booklets while others were unique to each booklet. Although all students answered questions in all four booklets, for financial and other reasons, only one booklet per child was processed for the purposes of reporting these results. The other booklets still have to be processed. In reporting these results, therefore, the number (N) of students who answered a particular item will vary. Where a particular passage appeared in all four booklets, we had 223 as the total number of students and where a passage appeared in one booklet only, we had 51, 54, 57, 58,59 or 60 students as the total number who answered a particular item. Ideally, a total of 60

students should have had their answers processed for each booklet, but some omitted a few questions which brought down the number to below 60.

Selection Of Schools

Since this was a pilot study, only a preferred sample of seven schools was selected to take part. The schools had to be close to the University of Zimbabwe where the National Research Center for the project is based in the Faculty of Education. However, the selection covered most of the Ministry of Education and Culture school categories, i.e. former Group B (3), Conventional Church (1), Private High Fee Paying (2) and rural district (1) secondary schools in the Harare and Mashonaland East Regions. Following the IEA guidelines for all participating countries, the selection of the schools was based on the 1987 form four public examination results whose achievement percentiles ranged from 97% for the highest achieving school to 4% for the lowest achieving school (Ministry of Education & Culture, 1987). For further discussion of methodology for this study, see Moyana et al (1989,1990).

The Nature Of Expository Passages And Documents

The major difference between narrative and expository reading materials is that the narrative ones are creative; they tell a story, arouse the reader's curiosity of what happens next, keep the reader in suspense and thus, propel the reader to speed read the material in order to quench his or her thirst as it were. These are materials typically "employed in the developmental strand" as children learn to read and as they continue to read for different purposes including for enjoyment (Harris & Sipay, 1979, pp. 360-364). However, not all comprehension skills necessary for success in content subjects can be developed with the use of narrative passages. As Harris and Sipay (1979) argue, content-subject material requires that the reader be able to understand expository material. Often we discover that the content-subject materials such as the sciences, social studies, mathematics, history, geography, technical subjects, etc. have higher readability levels and sometimes are more difficult than the level they are intended. In addition, concept load and density are other factors that characterise such content subjects. Harris and Sipay correctly state that many concepts discussed in such subjects tend to be related and the knowledge cumulative. They further argue that, It is difficult, if not impossible, to

write about complicated ideas without using complex terms, sentences, and paragraphs. The ability to understand and make use of such material requires the application of known basic skills and the acquisition of special reading-study skills (p. 364).

Thus, it is the acquisition of special reading-study skills such as close reading for understanding, skimming, scanning and knowledge of the specialised vocabulary that we were testing to see whether at the form two level, students have begun to master them. Most expository material aims to explain certain things in order to inform the reader who, in turn, must coordinate the information given in the form of printed and at times, graphic text. Hence, we had a lot of passages which explained processes or events with the purpose of merely informing the reader. Such passages were then followed by some multiple-choice or open-ended questions to test comprehension.

Another type of expository material is that which defines things or concepts, but in this study these were few. We had mostly passages on the explanatory and informative level. The documents to be discussed in this article fell under travel, geographical and medical subjects which students encounter almost on a daily basis.

Let us now proceed to present and discuss the results of the IEA Reading Literacy Pilot Study test which dealt with the passages highlighted above. We will need to observe how students fare in each of the categories of questions asked so that we can adequately assess their reading literacy levels. Statistics presented in Tables show percentages of those who got the correct answers and those who chose the most misleading answer, here called the strongest distractor.

Results And Discussion: Expository Passages

Table 1
"Naomi"

Question	% Obtaining correct ans.	% Opting For strongest distractor
1. Why Naomi was away for 272 days.	96,7	---*
2. Who set earlier solo around the world record	98,3	---*
3. What happened after boat tipped up-side down	98,3	---*
4. The year Naomi set her record	75,0	23,3
5. Why Naomi was happy to be home	98,3	---*

N = 60
---* = no significant distractor emerging

Out of the five questions asked on this passage, four were on the literal level. Students could find the answers right there in the short expository story of Naomi sailing round the world in 272 days. Question four needed an interpretative or reasoning skill because one had to deduce the answer from the information given in the passage which said, "two years earlier in 1968 Francis Chichester set the solo around-the-world record". This means that Naomi was undertaking her adventurous trip in 1970 (the correct answer) two years later than Francis Chichester's trip. However, while students managed to score outstandingly (96% and above) on the four literal questions, on this one requiring higher order skills, only 75% managed to get the correct answer with 23,3% opting for the strongest distractor which was "1968" instead of "1970". Students were easily misled here because 1968 was mentioned specifically in the text, thus trying to turn the question into a literal type whose answer would be easily available.

Table 2
"Volcano"

Question	% Obtaining correct ans.	% Opting For strongest distractor
1. What Paracutin was once a name of	59,5	25,7
2. What was destroyed in the eruption	87,4	7,7
3. Meaning of "Paracutin 'went to sleep'"	76,4	11,9
4. What author is trying to do in passage	46,5	43,9
5. What Paracutin is now	48,0	27,3
6. Where Paracutin is located	55,6	31,0
7. What we can learn about volcanoes from passage	70,0	13,6

N = 223

This passage on "the birth of a volcano" was both descriptive and informative and its category, geographical. It was short and not very difficult to follow or to understand. Of the seven items set on it, only one (number 2) was definitely on the literal level. Although question one was literal, students needed to be quite alert to come up with the answer because while it was stated in the text that Paracutin was a "Mexican *village*", 25,7% of the students thought it was "an old mountain" (which was the strongest distractor), since there was so much mention of village, volcano and mountain in the passage.

Questions three and five were on the interpretative level. Students had to interpret the meaning of the statement "Paracutin 'went to sleep'". The question used different vocabulary to describe the same concept. For question three it meant Paracutin "*stopped* sending out ashes and lava" and for question five it meant "Paracutin is now *temporarily inactive*". Both statements mean the same thing and students had to draw on their geographical knowledge to get the correct answers because when one studies volcanoes, one is familiar with such special terms as "a volcano going to sleep" as opposed to being "flattened out" or "permanently dead" (strongest distractors for questions 3 and 5 respectively), However, more students got question three correct than question five. The level of interpretation was higher in question five.

Question six was also on the interpretative level. In the text it was written, "The news [of the volcano eruption] quickly spread to Mexico City, *far to the east*". Students were then asked to say where, according to the story, Paracutin is located. This means that they were being called upon to interpret the location as lying to the *west* of Mexico City since the latter city was far to the east [of Paracutin]. The majority of the students (55,6%) did that while 31% chose the strongest distractor to the correct answer which was that Paracutin was located "in eastern Mexico". They failed to interpret the directions correctly.

Questions four and seven were on the evaluative level of comprehension, the former asking students to say what the author is trying to do in the passage. Students had problems with that question since only 46,5% got the answer right while 43,9% chose the strongest distractor to the answer which said the author was trying to "describe an interesting happening" as opposed to "explaining a scientific theory". There was certainly no theory being explained in the passage. On the other hand, question seven asked students "what we learn about volcanoes from the passage" and 70% got the answer correct even though it was on the evaluative/interpretative level. On the whole, performance on this passage was satisfactory.

Table 3
"Moonbirth: Turbulent Origins Of Our Nearest Neighbour"

Question	% Obtaining correct ans.	% Opting For strongest distractor
1. Why astronomers favour the Impactor Theory	56,7	---*
2. What astronomers learned from moon rocks	11,7	43,3
3. What the "Impactor" of this story really was	50,0	35,0
4. Why moon has no iron according to Impactor Theory	55,0	21,7
5. Phrase that best describes organisation of passage	26,7	46,7
6. What the last quote in passage reminds us of	46,7	20,0
7. The word that is *not* part of similar "finger-print"	56,7	21,7
8. Images not mentioned in Impactor Theory description	5,0	86,7
9. (Open-ended): Two problems explained by Impactor Theory	28,3	45,0

N = 60
---* = no emerging significant distractor

Admittedly this passage appeared difficult, basically because it had too many specialised scientific words which were needed to describe the Impactor Theory of how the moon came to be. Some paragraphs were both explanatory and definitional, for instance, "different isotopes of oxygen (different forms of an oxygen atom: they are chemically the same, but have different numbers of neutrons and therefore different masses)". The latter statement defines the meaning of different isotopes of oxygen. To that extent it should not have been difficult for students to follow the description and explanation of how the moon was born. The passage was typical of expository writing where complex terms,(i.e. words), sentences, and paragraphs are

used in order to explain the scientific theory under discussion. The results show that students need more practice with reading scientific material.

All questions were on the interpretative, reasoning and evaluative levels. The worst performance was on question eight which required students to identify the images not mentioned in the passage. The correct answer was "storms" because nowhere in the description of the Impactor Theory are they mentioned. However, 86,7% of the students chose "kitchen utensils" which was the strongest distractor. These latter forgot that "saucer" is a *kitchen utensil* and it appears several times in the passage, for example, "The *saucer-shaped* disk...," or "It formed a disk, sort of like a *huge saucer*," etc. It took a discerning mind to link "saucer" to "kitchen utensil". So perhaps exercises for this passage were difficult rather than the text itself as Grellet (1981) argues that the difficulty of a reading exercise depends on the activity which is required of the students rather than on the text itself, provided it remains within their general competence. In other words, one should grade exercises rather than texts (pp. 7-8).

Table 4
"Blue Whale"

Question	% Obtaining correct ans.	% Opting For strongest distractor
1. How heavy an adult blue whale is	96,7	---*
2. Why writer thinks many whales were killed	83,3	---*
3. Where baby whales are born	64,4	25,4
4. Why it is hard to study blue whale	64,4	20,3
5 Statement that is *not* true about crills	78,0	13,6

N = 59
---* = no strongest distractor emerged

This passage was purely informative as it described the blue Whale. Questions 1 and 2 were well done and both were on the literal level of comprehension. Performance on question 5 was also satisfactory. However, the answers to questions 3 and 4 were not as obviously stated as the others though still on the literal level which probably explains the lower performance in those items. There were no specialised words or expressions, so the passage was relatively easy for students.

Table 5
" Literacy"

Question	% Obtaining correct ans.	% Opting For strongest distractor
1. The *first* major benefit for Mrs. Okashi	51,7	25,0
2. Theme of the 3rd paragraph of the text	66,7	18,3
3. Advantage in ability to read signboards	81,7	11,7
4. Occasions when Mrs. Okashi often protests	80,0	8,3
5. Statement best expressing theme of passage	75,0	11,7

N = 60

The passage on "Literacy" would be familiar to Zimbabwean students even though the details of this particular expose' would not. The passage was about the benefits of becoming literate and can be equated to the story of "Ambuya [who] passes Grade Seven at 55" which appeared in *The Herald* (11/10/90), a year after this test had been written. The writer in that article described the grandmother well when she said: With tears in her eyes, a baby in one arm and a certificate in the other, 55-year old Ambuya Muchandiya smiled broadly as she showed off the reward for her fight against illiteracy. Like

Mrs. Okashi of Tanzania who is described in the test passage, Grandma Muchandiya had also experienced problems with signboards as she said, "It was the horror of travelling in a large city with large signs and words looming all over me...," yet being unable to decipher such words on the signboards. Indeed, one expected students to score very highly on this kind of passage because it was purely informative, very simple and prosaic in its style as it presented facts about the benefits of literacy. Students fulfilled that expectation since they did adequately well on all questions. No specialised words were used in describing the plight of this lady, a peasant farmer in Tanzania. The questions were mostly on the interpretative and evaluative level except question four which was on the literal level and on which performance was second best.

Table 6
" Camels"

Question	% Obtaining correct ans.	% Opting For strongest distractor
1. Chief purpose of the passage	58,2	15,0
2. The meaning of "camels can regulate perspiration..."	64,7	18,1
3. Function of perspiration in man	60,2	18,1
4. What happens to camels when temperature of air rises above 34°C	43,7	26,2
5. Relationship between 1st and 2nd paragraphs	32,0	38,1
6. Estimating weight of camel from information in passage	36,3	28,8

N = 222

In answering questions to this passage on how camels regulate their temperature as opposed to humans, students brought some general knowledge on that subject to it, which indeed, they should do (Grellet, 1981, p. 7), except that in some cases such knowledge influences the reader in dealing with facts presented in a particular passage such as this one. For example, item four which asked what happens to camels when air temperature rises above 34°C, required a different answer from a question on what happens to humans when temperature rises above that level. According to the passage, "when the sunshine becomes hotter and hotter the body temperature of the camel *follows the temperature of the environment*". This question was therefore, more or less on the literal level: the answer was there in the passage. Yet only 43,7% of students got it right. The other 26,2% chose the strongest distractor which said the camel "perspires heavily" when air temperature gets hotter. That is what humans do, but for camels the opposite is the case. This is a good example of how one's general knowledge on a subject can influence one's response to presented facts.

The passage itself was short and aimed at informing and explaining to the reader, how a camel's temperature is regulated in the desert. The questions were on the interpretative/evaluative level. However, item five was not well constructed because anyone of the first three options could have been the correct answer. Item six needed students to calculate the approximate weight of the camel from information that "22% of its weight [is] about 100 kilos" (a mathematical skill). Only 36,3% got the correct estimate of 500 kilograms while 28,8% opted for the strongest distractor which was 100 kilos; an obviously incorrect response since the text clearly *states* that that is 22% of the camel's weight.

On the whole, performance was fair for this passage though the last three items seemed to present problems to the students.

Table 7
"The Promise Of Laser"

Question	% Obtaining correct ans.	% Opting For strongest distractor
1. When the 1st laser was built	68,4	8,8
2. What the laser device sends out	80,7	7,0
3. Why development of lasers was *not* a surprise to scientists	64.9	14,0
4. Central component of *first laser*	68,4	10,5
5. Reason author gives for early attention to lasers	26,3	38,6
6. Achievement regarded as spectacular success	61,4	12,3
7. Why author thinks the age of the laser is upon us	40,4	21,1
8. Use of mirror left on moon by Appolo astronauts	59,6	14,0

N = 57

Performance on this passage which was scientific and informative was quite satisfactory. The majority of the items was on the literal level though for items three and four the answer in the passage was not in the exact words of the questions. Although item five was also on the literal level, most students opted for the strongest distractor: the answer with James Bond and science fiction; another example perhaps of the influence from one's general knowledge about a subject one is reading about. Items six and seven were on the interpretative level in that one had to choose the answer that is a summary of what is said in the text. On the whole, students' performance was satisfactory.

Performance on the remaining eight expository passages in this test followed the same pattern: students did well on non-scientific, informative, explanatory passages with items which were on the literal level of comprehension and not so well on the passages which had a scientific content whose material was compact with a high concept density. One example of such a difficult text was "Smoke", which discussed scientific research findings on the effects of smoking on one's health. It had a lot of specialised language, for instance words like DNA, cancer, malignant genes, malignant tumours, radioactive substances, combustion, radiation, etc. Maybe students were intimidated by such language because although items one to four were on the literal level of understanding, with answers to questions right there in the passage, less than 50% got the correct answers for items one to three. Seventy percent got the correct answer for item four. Item five was interpretative, six and seven evaluative. Students found question five which was on the interpretative level, more difficult with only 26% getting the correct answer.

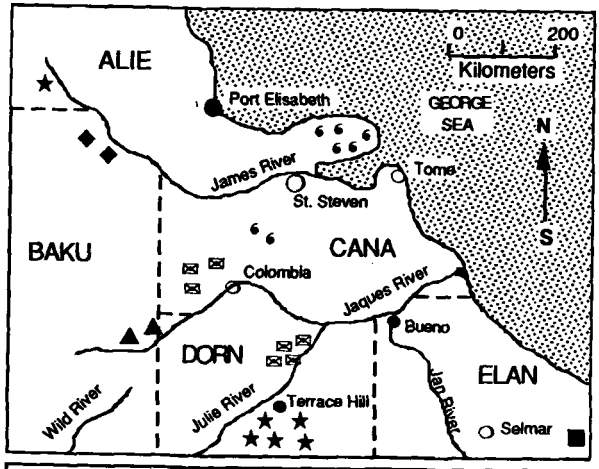
Another example of a passage with scientific content was "Sea" which discussed the movement of sea water, both at the equator and at the North and South Poles. Perhaps the subject was too remote for land-locked Zimbabwean children and thus, not as readable as it should have been. For, out of five items, only on one did 59,6% of students manage to get the correct answer. On the other four items including an open-ended one, less than half the students obtained the correct answers. Some other science topics were "Plants" and "Mammot" which discussed plant and animal life. "Pole" discussed life at the South Pole. Performance on these passages was below average. For example only 10,5% attempted the one open-ended question and got it correct while 56% attempted and got it wrong. The rest left it blank.

On the contrary, students fared better on expository passages that were non-scientific in content. For instance, on "Notice From a Hotel" which gave instructions on what to do in case of fire, with questions that were all on the literal level, performance was outstanding: item 1: 89,9% got the correct answer; item 2: 85,2%; item 3: 87,0%; item 4: 88,9%. The subject was familiar and less complicated questions were asked.

On another passage, "Climber" which was describing mountain climbers caught up in the snow and who had to be rescued, students also did well in spite of the unfamiliar French names and words like snow which were outside their normal vocabulary range. Because the subject fell under the topic of adventure, students could cope with that since most of them enjoy reading adventurous stories. On all items two of which were literal and another two interpretative, more than 50% got the correct answers. We shall summarise our observations on such student performance later. For now let us discuss evidence of performance on documents, one of which was scientific since it was a medical document. This will enable us to compare performance on documents with that on expository passages. See Tables 8 to 11 and the accompanying discussions.

Table 8

RESOURCES



Key:

1 ★	Iron	4 ◆	Copper		
2 ✉	Coal	5 ▲	Gold	- - - -	province border
3 ■	Bauxite	6 ⁘	Oil		

Question	% Obtaining correct ans.	% Opting For strongest distractor
1. Number of rivers in the map	86,0	N/A
2. Resource in Province of ELAN	89,5	
3. Approximate number of km. from Bueno to sea	17,5	
4. Province with largest amount of iron	54,4	
5. Resource mined south-west of Colombia	42,1	

N = 57

We have included the actual map that students had to work with in Table 8 to give the reader a pictorial idea of the geographical topic. Students did outstandingly well in the first two items as shown by the high percentage of those who got the correct answers., On item three the correct answer depended on accuracy in measurement and interpretation of the scale given. That seemed difficult for most students since only 17,5% got the correct answer. Item four seemed straight forward. But because of Julie River which divides DORN Province with "the largest amount of iron", students could have been misled. Still, more than 50% got the answer right. The problem with item five could have been the mis-interpretation of the direction "south-west". Less than half the students (42,1%) managed to get that right.

Table 9 shows results on a document that is scientific and medical in content. Its subject was bound to be familiar to students who, at some point, must take "aspirin" or a similar tablet to cure headaches and other body aches and pains. So let us see how students performed.

Table 9
"Soluble Aspirol With Vitamin C"

Question	% Obtaining correct ans.
1. How to take Aspirol 'C'	98,2
2. Persons for whom Aspirol 'C' is not suitable	89,5
3. When to take Aspirol 'C'	87,7
4. Aspirol 'C' not suitable for children	87,7
5. Maximum dose per day	29,8
6. Ask Dr. before giving Aspirol 'C' to young	61,4
7. What to do if Aspirol 'C' changes colour	59,7
8. Difference between Aspirol 'C' and regular Aspirol	29,8

N = 57

Students were generally outstanding in questions one to four of this passage with above 85% getting correct answers. As we said earlier, this was a medical topic that students at form one or two level would be familiar with; a topic which is vital in that they have to understand how to take medication properly.

The method asked for in item one, for example would remind them of instructions on a 'disprin' package. Items two to eight are very important factors in medicine. However, item five seemed a bit tricky as one had to deduce the answer from the passage. But again the language used was exactly as one would find it on a medicine pack. The same applied to item eight where one needed to work out the answer instead of just finding it easily. Students were, however, able to show their understanding of such a document which they probably encounter in different forms all the time.

Table 10
"Job Vacancies "

Question	% Obtaining correct ans.
1. Job where one would drive a lot	87,0
2. Job where one would work with large amounts of money	79,6
3. Job where there are many fellow workers around you	66,7
4. Job where one would learn different languages	85,2
5. Job where one would work part-time	68,5
6. Job where one would work evenings only	79,6

N = 54

This document had job advertisements from which students had to select particular jobs providing certain conditions and duties. Once again, performance was very good on the whole, demonstrating that they have the relevant skill to read and follow such job advertisements, a skill some of them will need after form two and others after form four as they hunt around for employment.

Table 11
"Filling In The Traveller's Card"

Question	% Obtaining correct ans.
1. Fill in Anna Teresa *Rama's* surname	86,3
2. Given names	78,4
3. Place of birth	96,1
4. Date of birth	78.4
5. Home address	86,3
6. Object of journey	43.1
7. Passport number	78,4
8. When it was issued	74,5

N = 51

The instructions for this document were: "Anna was given this traveller's card in Noumea [her destination city). Fill it in for her. PLEASE USE BLOCK LETTERS". Thus students proceeded to fill in the information as required on the card, a task which was very straight forward except that item six may not have been that easy since students had to select their

answer from either "business", "visiting relatives", "vacation", or "other". Most students chose "business" instead of selecting "other" since the journey had to do with *sports*, which strictly speaking is not *business*. Students in this passage demonstrated that they understand how to fill in forms and how to extract the necessary information from the given facts. One hopes that with this acquired skill, they will be able to fill in different forms for different purposes in life.

Summary Of Observations

The above analysis of expository passages and some documents has demonstrated that students in this sample have generally acquired good reading literacy skills by form two level. It also shows evidence that students understood better the non-scientific expository passages and practically all the documents (provided they did not have too much specialised language in them,) than they did those expository passages with a science content.

On types of questions which followed each passage, students performed best when answering those on the literal level as opposed to those on the interpretative, reasoning and evaluative levels of comprehension.

Conclusion And Recommendations

Given such observations made on this sample of form two students' performance, we can tentatively conclude that students definitely need more practice in reading expository passages with scientific content at this early stage in their secondary school education. Zimbabwe is at a point where she is placing a lot of emphasis on science and technology in the education of her children as evidenced by the rapid expansion of technical and vocational education and the establishment of the National University of Science and Technology. Therefore, children must receive a lot of practice in reading science-content material to prepare them for specialised courses in technical and vocational education.

We also conclude that students need more practice in working with questions or tasks beyond the literal level of understanding. There is glaring evidence above that whenever students had to deal with pure literal questions where answers were easily available in the given passage in exactly the same words as asked, students' performance was outstanding. On more demanding interpretative and evaluative type questions requiring more sophisticated reasoning and thinking, students' performance was lower. We therefore, recommend that at the Zimbabwe Junior Certificate level, students be given more practice in working with those exercises requiring higher order skills because these are the skills which will enable them to benefit more from their reading, whether for personal or educational purposes.

Further Questions On The Literacy Of Zimbabwean Form Two Students

The IEA Reading Literacy Pilot Research Study had vast amount of data which is still being followed up and analysed to date. In the process of analysing such adata, a lot of questions have been raised, some of which still remain unanswered. On the national level for instance, we want to know the difference in performance between school types (i.e., former Group A versus former Group B versus Conventional Church schools, versus rural district council schools); differences in performance between boys and girls (if any), and the influence of the multivariate factors such as school and home environment on the development of the children's literacy skills. On the international level, we would like to compare and contrast the performance of Zimbabwean students with that of students from other countries of the same age group, some of whom took this test in English as a second language and others in English as a first language. We anticipate more questions and answers as we move on to the main testing stage of this research study as reported by Moyana et al (1990).

Therefore, at this point, our conclusions on the literacy skills of this limited sample of students can only be tentative and we would even hesitate to generalise these findings nationally. Hopefully the bigger sample of the main study (3 840 students in 192 schools randomly selected countrywide) will give us more evidence on the subject to enable us to make better conclusions and recommendations to those concerned and tasked with the education of the youth as it pertains to reading literacy.

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