

READING COMPETENCY OF FIRST YEAR UNDERGRADUATE STUDENTS AT UNIVERSITY OF BOTSWANA: A CASE STUDY

The ability to read and interpret textbooks and other assigned material is a critical component of success at University level. Therefore, the aims of this study are twofold: to evaluate the reading levels of first year students when they first enter the University in order to determine how adequately prepared they are for university reading. It is also to find out if there will be any significant improvement after going through the academic literacy course offered to first year students. The participants were 51 first year undergraduate Humanities students enrolled in the Communication and Academic Literacy course at the University of Botswana. The data was collected through a reading test adopted from Zulu (2005) which was administered at the beginning of the first semester. The same test was administered at the end of the semester after the students had gone through the academic literacy course to see if there was any difference in performance. The findings of this study indicate that there is a mixed and wide variation of students reading competency levels when students' first enter the university and that a significant number of first year entrants are inadequately prepared for university reading.

Key words: L2 reading proficiency, L2 proficiency, L2 proficient readers, language knowledge and processing ability, cognitive ability, metacognitive competence

1. Introduction

The ability to read and interpret textbooks and other assigned material is a critical component of success at University level. Reading skills form the basis for learning and are an important element of obtaining knowledge in academic learning in all subject areas and even to lifelong learning. It is therefore, reasonable to assume that an important factor in whether students succeed is their reading proficiency.

In the context of Botswana, we do not know much about the L2 reading proficiency of students when they first come to the university. It is often taken for granted that because the students would have attained a minimum of a C grade in English language at their end of high school examination their reading proficiency can meet the demands of university reading. This belief is inadequately founded (Cummins, 1984) especially that Ketsitilele & Commeryras (2014) after reviewing published information on reading in Botswana schools concluded that teachers in Botswana secondary schools lack preparation for teaching reading.

We have found out that not much research has been done on L2 reading at university level compared to L2 reading research at primary and secondary levels. The limited research done was mainly concerned with cognitive and metacognitive aspects of reading (see Magogwe, 2013, Chimbanga 2006). Insights into L2 reading proficiency of university first entrants might inform academic literacy lecturers about possible useful instructional pedagogies and reading curriculum review that would appropriately address students reading challenges.

This study therefore focuses on the reading proficiency of L2 first year students when they first enter university with particular attention on evaluating their reading proficiency levels. Also their reading challenges will be determined. Specifically, it focuses on first year humanities students at the University of Botswana.

2. Justification

L2 research carried in Sub-Saharan Africa shows that many students enter university without adequate reading skills (e.g Chimbanga, 2006 ; Dreyer & Kopper, 2004; Zulu, 2005;). Research carried out in Botswana has shown that students enter secondary school without having mastered literacy competencies such as reading (Arua et al 2005; Hamblett, 1977). Unfortunately, the teaching of reading skill is not explicitly stated in the secondary school curriculum on the assertion that the skill has been attained at primary level. Although the teachers at junior secondary school acknowledge students lack of reading skills, they believe that it is not their responsibility and that primary school teachers should have done it (Arua et al, 2005). At junior secondary level the instruction of reading strategies across a variety of subjects and texts is then mainly left to the teachers of English, whom Mokibelo & Magogwe (2008) observed had a negative attitude and mostly used lecturing which is not a suitable methodology to teach reading. Molelo and Cowieson (2003) revealed that most frequently reading instruction in junior secondary school concentrated on how to pronounce words rather than on reading skills and strategies.

At senior secondary school the same pattern as at junior school prevails. Students are not explicitly taught reading comprehension strategies across the subjects with the premise that students already acquired the skills at primary and junior secondary. Molosiwa (2007) reports that senior secondary school teachers who teach reading in English and the local language, focused more on topics examined than on the curricula objectives provided. Teachers across the different subjects are aware that students lack reading skills (Molosiwa 2007) but hold the same view like those at junior secondary that it should be taught in the English classroom (Arua et al, 2005). Thus students exit secondary education for university with reading strategies not adequately developed and most students rely on skills they acquired in the primary school.

The reading skills acquired at primary school are insufficient for success at university level because reading with understanding and retention is a skill that needs to be cultivated over many years. As a result, most first year students' including some of those who attained very good grades at secondary school encounter enormous difficulties to understand university level text. This is because students at secondary school read to repeat what they have read rather than demonstrate comprehension which is what is required at university. Students at university are required to use several sources of information in order to assess different viewpoints and be able to understand meaning, evaluate, integrate and synthesise information in order to come up with their own strong argument. This means the ability to read academic texts is regarded as a critical skill university students need to acquire.

Although university students ability to read and independently understand textbooks and other assigned materials is one of the foundations of university learning and a basic expectation of university lecturers, in the context of Botswana studies on reading has mostly focused on primary and secondary students for example (Mokibelo & Magogwe, 2008; Molosiwa 2007; Molelo & Cowieson, 2003.) Little attention has been given to university students reading abilities. Although Chimbanga, (2006) did research in which he looked at summarising strategies of science students at the university and Magogwe,(2013) on metacognitive skills of social science students we know very little about the students reading proficiency levels when they first enter university.

Such knowledge could serve as a guide in designing a curriculum that meets the needs of learners. Evaluating first year students' reading levels when they first come in would allow the lectures to develop reading courses that would address the students' challenges and could also allow lecturers to identify those who can read and comprehend materials at the appropriate university level. It is against this backdrop that we decided to engage in this study in order to evaluate the reading proficiency level of first year humanities students and the effects of a reading programme on their reading comprehension.

3. Purpose and Objectives

Generally, the purpose of this study was to evaluate the reading level of first year Humanities students at the University of Botswana (UB). The specific objectives were to;

- i. Assess the reading levels of first year humanities students based on data collected in 2014/15 academic year in semester one.
- ii. Find out the reading difficulties experienced by first year students when they first enter the university
- iii. Find out whether exposure to the academic literacy reading module made a difference in students reading levels.

4. The Context of the Study

Recognising the gap between secondary and university level literacy skills and inadequacy of such skills among first year students, the University of Botswana put in place compulsory Academic Literacy courses for first year students meant to help them raise their academic literacy skills so that they could cope with the learning demands of university level. The Communication and Academic literacy course is tasked with the responsibility to teach mainly academic literacy skills – reading, writing, listening and speaking. Students are not required to take any placement tests in any of the academic literacy skills nor their English competency level.

The researchers have observed with concern over the years a high dropout rate at the end of the first semester among first year students especially among students from the faculty of humanities. Because reading is a critical component for success at university level the researchers who are lecturers of academic literacy felt it is necessary to evaluate the level of reading skills of incoming students to determine the suitability of the current reading module offered. The results of the reading tests will be evaluated and their implications for teaching and curriculum review discussed.

5. Methodology

5.1 Participants

Convenience sampling was used to select one class taught by one of the researchers of the Communication and Academic literacy course at the University of Botswana. The participants were 51 mixed gender first year undergraduate students studying in the humanities department. They had been admitted to the university based on their national end of secondary school examination scores which are equivalent to COSC examinations. All students were assumed to have a minimum of "C" grade in English language which is the minimum grade for admission to humanities programmes at the University of Botswana. The

students were informed of the purpose of the reading proficiency test and initially they all volunteered to participate but when the test was repeated at the end of the semester only 30 students participated.

5.2 Data Collection Instrument and procedure

The primary instrument for measuring students' reading abilities and the reading difficulties they experience when they enter the university was a reading test adopted from (Zulu, 2005). The test was selected by the researchers because its validity and reliability had been tested and it had been administered on students whose English second language ability is not distinctly different from the students in this study since South Africa where Zulu's study was carried and Botswana are in the SADC region and close neighbours. Zulu (ibid.) also points out that 'proficiency tests are theory-based' and also that 'a student would be considered a proficient reader if s/he demonstrated the ability to use the knowledge of reading to perform various tasks' (114). A reader who can demonstrate simultaneous use of different reading strategies (linguistic knowledge and processing ability and cognitive) to tackle questions of varying difficulty and use meta-cognitive skills effectively would be considered a proficient reader (Zulu, 2005; Grabe, 1991; Stanovich, 1980).

The reading test was administered during the second lesson of the academic literacy course which lasts one hour and the same test was administered again at the end of the same semester after the students had been exposed to the reading module.

The test comprised of a 555 words long cloze passage with 20 deletions on a topic on electronic mail messages and a set of 15 multiple choice questions with four alternatives of varying difficult levels from a comprehension passage 772 words long. The reading comprehension passage was on theories of reading and was divided into three sections; section one was on the place of meaning in reading, section two – the impact of context upon reading and section three – the influence of reader purpose. We did not consider the content of the reading passages as new and unfamiliar because almost all students at their level are familiar with electronic mail messages and could relate with content in the reading theories passage. We therefore presumed participants' background knowledge of the content in the passages. Possession of this knowledge is supposed to help L2 readers to compensate for any language deficiencies (Rumelhart, 1980). Cloze tests are generally considered valid and reliable reading ability gauges (Zulu, 2005; Seliger, 1977 & Rye, 1982) in first and second language settings. However, several other reading researchers question the validity and reliability of cloze tests (Sadeghi, 2008; Markham, 1988; Alderson, 1979). Therefore, a combination of cloze and multiple choice questions was used to obtain a reasonably valid and reliable assessment of reading comprehension

5.3 Data Analysis procedures

The data for this study comprised of students' scores in the reading comprehension test that we administered before they began the course and at the end of the course. Pre- entry and post entry scores of students in the reading test were used in the analysis. For analysing the scores SPSS was used. In order to ascertain whether there was any significant difference between the test scores of the two tests, Anova test was used and we worked on the assumption that there will be improvement in the scores due to exposure to the course. We also did an analysis of each of the questions to see how students performed in each of the questions and which questions posed difficulties for the students.

5.4 Ethical considerations

The code of research practice as contained in the Research Ethics Policy for the University of Botswana was adhered to. The rights of the participants were respected by requesting students to freely volunteer to take part in the research. Students were free to opt out at any time. Although participants were asked to write their names on their answer sheets, the scores were not revealed to anyone even the participants. The marks attained in both the pre – test and post-test were not used for continuous assessment. The names were required to help the researchers measure improvement or failure from scores obtained for each individual participant in the pre- test and post –test.

6. Results and discussion

As already mentioned, data for this study comprised of two marks students attained on the reading proficiency tests and analysis of each question item.

6.1 Levels of reading

The first objective of this study was to assess the reading levels of first year humanities students based on data collected in 2014/15 academic year in semester one. The reading levels were determined by a reading proficiency test and we used the University of Botswana assessment criterion to determine the level of proficiency of the students. In relation to this objective, a breakdown of students' performance in the test is as follows:

- 14.2% of the students scored a B grade which ranges from 65 – 74.9%
- 51.5% of the students scored a C grade which ranges from 50 – 64.9%
- 34.3% of the students scored a D and below. This was a mark of 40 - 49.9 and below.

The results of the study seem to indicate mixed level of reading competency and a wide variation in reading competence of students when they first enter the university. It is also apparent that considerable percentage of first year new entrants reading competency skills are below levels expected at university level. The results seem to corroborate Zulu's (2005) analysis that the majority of students enter the university with poorly developed reading skills and strategies which cause huge reading difficulties for them. Like in Zulu's case, the majority of our students come from disadvantaged schooling background where the teaching of reading skills is left to the English teacher only and is not integrated into the school curriculum, and where 'learning and assessment is mainly of the rote kind where little emphasis is placed on developing deep and critical reasoning skills' (Zulu 2005:112).

6.2 Reading difficulties

The second objective of the study was to find out reading difficulties experienced by first year students when they first enter the university. In order to do that we did an analysis of each of the questions and isolated items that seemed most difficult for students.

In the reading comprehension section, questions that required higher order reading skills to comprehend, deduce meaning, interpret and make associations of meaning between different parts of a text were one source of difficulty for the students. For instance, 17 students failed to answer question 3 (see appendix 1) correctly. This is a question that required students to make inferences and make connection between different parts of the text, a task that seemed difficult for students. Another example is of question 5 which required students to make

connections with the preceding paragraph and deduce the point of view of the writer in order to answer the question correctly. The students seemed to lack understanding of what the gist of the preceding paragraph was. 24 students failed to answer this question correctly. Question 8 was another question that was very problematic for students. 27 students failed this question. The question required students to summarise the main point of the paragraphs 4 to 8. The last example is question 12, where 26 students failed to answer the question correctly. The students failed to interpret the meaning of the statement that they were given.

We can see that generally these items that proved difficult for students are questions that required high order thinking and interpretive skills. This is not surprising because these skills are not normally taught at high school and are skills that are possessed by proficient readers. Studies in L2 reading indicate that proficient L2 readers use a combination of strategies to aid effective reading (e.g. Anderson, 1991; Carrell, 1989; Rumelhart, 1984; Stanovich, 1980). For instance, according to the Interactive- compensatory model, (Stanovich, 1980) competent L2 reading is a result of highly interactive several knowledge sources working together at the same time flexibly to compensate each other in comprehension. This allows a reader with a weakness in a particular knowledge source to rely more heavily on another knowledge source they are strong in. This was corroborated by other researchers e.g. Shih (1992: p. 291) points out that “conceptual knowledge (content schemata), text structure know (formal schemata) and knowledge about text- processing strategies are the foundation for successful construction of meaning”. Therefore, comprehending words, sentences and an entire text involves more than just one source of knowledge and proficient readers are in possession of these different sources. Unfortunately the results indicate that our students do not possess these different strategies.

Generally, the students performed very badly in the cloze passage questions. Both suitable and exact word answers were scored in this study since we were of the view that the reader’s comprehension of the text is more important than the precise words of the text. The questions required students to read the passage to get the general sense of the passage and then read it again filling in the blank spaces with suitable words. Students were required to use semantic, syntactic and contextual clues to come up with suitable words to complete the sentences.

We can see that these questions tested students on their general linguistic knowledge and processing ability. Linguistic knowledge and processing ability of the readers’ can be referred to as proper knowledge of vocabulary, syntax, and discourse and their capability to use this knowledge in their interaction with texts (Pang, 2008). Proficient readers have been seen to have knowledge of the syntactic structure and high levels of vocabulary proficiency which aids them in making inferences (e.g Hellekjaer, 2009; Nassaji, 2003 Barnett, 1986). Further, proficient readers can quickly recognise words and can process complex sentences due to good syntactic knowledge in the target language. Carrell (1992) points out that proficient readers are aware of the structural elements of the text and discourse organisation which helps them to remember the main ideas of the text and understand much better. Proficient L2 readers have also been found to have extensive vocabulary which allows them to automatically and rapidly recognise words in a text (e.g. Alderson and Urquhart, 1984; Perfetti, 1985; Nassaji, 2003). However, we acknowledge that the weak performance of students in the cloze test could be two-sided. The first being an indication of students failing to understand the text on which the cloze test was based or secondly, the cloze test failing to measure students’ comprehension of the text (Sadeghi 2008)

6.3 Exposure to Academic Literacy reading module

The third objective of the study was to find out whether exposure to the academic literacy reading module made a difference in students reading levels. To do this the results of the pre entry test post entry test were compared. The results are shown in table 1 and 2 below. Table 1 below gives a summary of the mean scores of the two tests. The table indicates an improvement in the test scores after the second test.

Table 1: Total number of students and the mean scores of the two tests

| <i>Groups</i> | <i>Count</i> | <i>Sum</i> | <i>Average</i> | <i>Variance</i> |
|-------------------------|--------------|------------|-----------------|-----------------|
| Pre- entry test | 30 | 534 | 17.8 | 23.06207 |
| Post- entry test | 30 | 668 | 22.26667 | 15.92644 |

Table 2 below shows a comparison of students' performances in both tests.

| | | post-test | | |
|-----------------|-------------|------------------|-------------|--------------|
| | | Pass | Fail | total |
| Pre-Test | Pass | 17 | 2 | 19 |
| | Fail | 11 | 0 | 11 |
| total | | 28 | 2 | 30 |

Table 2 indicates that in the pre- entry test 11 students failed the test and 19 students passed the test. In the post entry test the results indicate that 28 students passed the test and only 2 students failed the test. This was a repeat of the same test that the students wrote at the start of the course. Generally the table indicates that there was an improvement in the results registered after the second round of the test. The breakdown of the results indicate that 8.4% who had scored an E grade improved to D grade in the post –test while 58.3% of students who had scored a D grade in the pre-test improved their grade to C in the post test, 33.3% of the students scored a B grade. In order to ascertain whether there was any significant difference in the results Anova test was conducted. The results of the Anova test are presented below:

Table 3 Statistical Pre- test and post – test results

| | SS | Df | MS | F | P-value | F crit |
|-----------------------|----------|----|----------|----------|----------|----------|
| Between Groups | 299.2667 | 1 | 299.2667 | 15.35153 | 0.000238 | 4.006873 |
| Within Groups | 1130.667 | 58 | 19.49425 | | | |
| Total | 1429.933 | 59 | | | | |

As table 3 above indicates, there are statistically significant differences between the pre-entry test results and the post-entry test results. The results indicate that $P_{\text{value}} = 0.000238 < 0.05$. Therefore it can be argued that the independent variable, in this case the course, has affected the response variable, which is the performance of the students. The results seem to indicate that the reading module has had an impact on students' performance besides other elements such as improved reading proficiency due to extensive reading of academic textbooks.

Despite the small size of the participants that was used in the present study and the fact that they came from one faculty, overall, the results seem to corroborate findings of earlier researchers which indicate that students that enter the university are generally inadequately prepared for tertiary academic reading (Zulu 2005; Zimmerman and Houston 1994). It is also important to note that the results indicate wide variation in the reading competency of new entrants. It is apparent that a considerable percentage of first year new entrants reading competency skills are below levels expected at university level. Students' reading difficulty mainly lies with critical reading, analytical and interpretive skills. On the other hand, the Anova results indicate that there are statistically significant differences between the pre-test results and the post-test results indicating that the reading module has had some impact on students' performance.

Implications of the study

The findings of this study have important implications for the teaching of reading skills at the University of Botswana. Firstly, given the results of this study, we cannot assume that students that enter the University of Botswana are competent and proficient readers. We realise that students have problems with reading comprehension. We therefore have to explicitly teach metacognitive strategies that students can use to comprehend texts that they read. These metacognitive strategies include awareness of how and when to use a combination of strategies in order to make comprehension processing efficient and effective (Alderson 2000). It also means that students should be made aware of purposes for reading so that they can adjust their reading process accordingly, focusing attention on major ideas rather than minor details, engaging in self-questioning to determine if reading goals are being met, noticing comprehension failures, and taking action to remedy such failures, using strategies (Alessi, Anderson, & Goetz, 1979) such as 'store the problem in memory as a

pending question in the hope that clarification will be forthcoming; reread the text; look ahead in the text; or consult another source' (Brown, Armbruster, & Baker, 1986, p. 61).

Secondly, in order to improve the students' reading abilities at the University of Botswana, the academic literacy unit should initiate a reading competency testing program, which will determine the reading level of first year students and inform us of about what skills to focus on. The results of this study indicate that exposure to the reading module (even for a very short time) made a difference to students reading ability.

The findings can also inform the design of the EAP reading course, and what we should emphasise in the teaching of reading skills. For instance, it is apparent that more focus should be placed on developing students critical and interpretive skills because these skills are crucial in academic contexts. Also an advanced reading course could be developed and added to the curriculum for those students who are above the minimum level.

7. Conclusions

While a need for a larger and wider institutional study is required, the results of this study corroborate other studies carried elsewhere that indicate that a significant number of first year entrants have inadequate reading competency skills when they first enter university (Zulu, 2005 ; Dreyer & Kopper, 2004;). Most critically lacking, are high order thinking, interpretive, critical reading and metacognitive skills. This calls for academic literacy lecturers to teach a range of reading strategies and provide students with experiences that allow them to transfer those strategies to other learning environments. It is also evident that there is a mixed and wide variation of students reading competency levels when students' first enter the university. Lecturers teaching academic literacy need to take cognisance of this diversity for them to be able to effectively cater for it. The reading module does seem to have an effect on students reading proficiency although there were some students who seem to have not benefitted. This could be pointing to the fact that some weak students might need more time to be offered scaffolding and intervention after the module. To be academically successful students need to be proficient readers who can use varied reading strategies to understand text. Therefore assessing their reading proficiency levels when they first enter university will allow for appropriate intervention which meet student needs to be designed.

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