

## **An Appraisal of the Efficacy of Measures of Readability in Identifying Level of Text Difficulty among Theintermediate Esl Learners**

Mohammed Sani Abdullahi<sup>1</sup>, Sani Adamu<sup>2</sup>,  
Babangida Umar<sup>3</sup>

<sup>1</sup>*Department of English AminuSaleh College of Education, Azare*

<sup>2</sup>*Department of English AminuSaleh College of Education, Azare*

<sup>3</sup>*Department of English AminuSaleh College of Education, Azare*

---

### **ABSTRACT**

The study is an exposition of ‘making a match’ between a text reader and a text especially pedagogical situation. The study posits that if learners who are given reading materials that are too easy are not challenged and their learning growth can be stunted. However, learners who are given reading materials that are too difficult can fail to make progress and consequently become frustrated. It is therefore imperative for the teacher to make a match so that the learner smoothly and reliably attain educational ladder through the developmental levels. The study discovers that researches conducted on readability anchor on two general factors influencing readability. For the text factors itself, word difficulty, word familiarization, sentence difficulty among others are explored, while the reader’s factors include physical capabilities, reading abilities, motivation, prior knowledge, etc. The study therefore recommends that teachers should be aware of the learners’ individual reading needs, select appropriate reading materials, and motivate learners in reading.

**KEYWORDS:** readability, reading, text, readability formulae

---

Date of Submission: 06-07-2020

Date of Acceptance: 20-07-2020

---

### **I. INTRODUCTION**

Reading is a lifelong activity. Those who enjoy reading derive pleasure and satisfaction from it. Reading is the process of using our eyes and mind to understand the literal as well as the hidden meaning of what the writer was attempting to convey. When a person says I have five mangoes, the meaning is in a physical context. You could count the mangoes and avoid any confusion. Reading has to do with the ability to identify letters, linking them together to form words and linking the words together to form sentences. One should be able to read such words that are linked together and understand what such a collection of words mean. Reading starts from there and it develops progressively. Reading becomes effective when one has understood what he has read. Reading entails the ability to recognize the graphic symbols with their corresponding vocal sounds. Wholly

Reading exposes us to all sorts of registers in the language and generates an interest to develop communicative competence. English is a library language and most of the students use reading skills for gathering information. In this new age of knowledge explosion, e-learning and mobile learning, reading skills help us to retrieve information from various sources.

Reading is the recognition of printed or written symbols, which serve as stimuli for the recall of meanings built up through the reader’s past experience. It has also been described as a process of translating alphabetical symbols into a form of language from which the native speaker has already derived the meaning.

Reading is basic and fundamental to acquisition of language and learning which leads to high academic performance (Mahmud 2008, Ogbemudia and Alasa 2014, Marima 2016, Ofuani and Gbenedio 2016, Abana 2016). It is very difficult to achieve academic success without being able to read (Oyetunde, 1997). Day (2017) stressed that reading is a major pathway to learning; therefore, it is imperative that students become successful readers early in their academic careers. The ability to read is one determiner of students' success or failure. They must form the habit of reading to perform well in all subjects Adeniji and Omale, 2010). Mastering reading is a primary tool for success for children. Reading is required for many developmental accomplishments such as attention, memory, language, and motivation (Talley 2017). Oyetunde and Muodumogu (1999) noted that reading is one area that is particularly problematic for children within the school system. The fact is that reading is a very complex process that requires the development of many literacy skills, including oral language skills,

sight word recognition, decoding skills and comprehension strategies among many others (Oyetunde, Ojo, Korb, and Babudoh, 2016).

Many factors enter into determining the readability of materials Pikulski (2002) including the syntactic complexity of sentences, density of concepts, abstractness of ideas, text organization, coherence and sequence of ideas, page format, length of type line, length of paragraphs, intricacy of punctuation, and the use of illustrations and color. In addition, research has shown that student interest in the subject-matter plays a significant role in determining the readability of materials.

Studies (Pikulski 2002, DuBay 2004) observed that certain variables are responsible for the problems of readability among ESL learners inspite of the success of readability formulars and approaches that were developed at different times in order to assess and make a match between a text and a reader. Solutions were consequently not recorded (DuBay 2004). However, attention was geared towards the limitation of the formulars and some of the critics of the readability formular offered alternatives such as usability testing.

Students andoften their teachers faced problems in the language proficiency or reading skills to understand more than simple sentences as posited by Gupta (2014). This, according to him, is exacerbated by the case of first generation learners.

Teaching and learning generally cannot be devoid of textbooks. Textbooks are considered as a collection of contents of a particular issue in an appropriate linguistic and didactic form (Rottensteiner 2010, Wissing, Blignaut and Van den Berg (2016). Although textbooks for school use offer only a small part of the scientific findings the educational materials must be correct in content. It serves for planning, initiation, support and evaluation processes of information and communication. For this reason, its structure, desirable content and communicative function must be well taken care of, otherwise students faced difficulty in not only able to read but discerning any intended meaning. In other words, for students to be empowered by the content of their textbooks, they have to extract meaning from the content communicated by the textbooks (Snyman 2004).

### **The Concept of Readability**

Readability as an object of study datesback to the 1920s, when learners, teachers and librarians evaluated the readability of texts (Dubay 2004, Zamanian&Heydari 2012, Janan& Wray 2012) for purposes congruent with their roles. This saw the development of readability formulae, which provided an objective, analytical way of predicting text readability in the absence of readers and estimated the number of years of education one would need to have in order to understand a particular text, with a view to developing and selecting texts that are accessible to the intended audience or readership.

Many attempts have been made to define the term readability. It seems as if there were no one good definition of readability. But it would be realized that many definitions of readability, on the contrary, have broadened its scope. While defining the term readability, different writers have emphasized different factors of readability. Readability is the term used to cover the various aspects of written materials which together determine the reading difficulty of a printed page. Dreyer (1984) sees readability as a text's legibility, power to interest, ease of understanding or any combination of these factors.

Readability is defined as the property that permits an individual to read sentences from the stimulus material easily irrespective of their meanings. (Gradišar, Humar& Turk 2006). Wray &Janan (2013) see readability as the degree to which a text is matched to its intended and actualreader. Normally it is concerned with continuous texts. Common measures of readability include reading rate, identification of misspelled words, searching for pre-specified letters/words within word lists of passages. However, as readability is considered to be a human psychological response, there are several factors influencing on its performance. It is usually difficult to isolate these parameters when measuring readability performance.

Some studies like Sibanda (2014) considers Dale and Chall's definition, although dated, as the most comprehensive among several definitions. They define readability as: The sum total (including all the interactions) of all those elements within a given piece of printed material that affect the success a group of readers have with it. The success is the extent to which they understand it, read it at an optimal speed, and find it interesting.

However, Pikulski (2002) holds a view that a more reasonable definition of readability that is in keeping with more recent research and theory is *the level of ease or difficulty with which text material can be understood by a particular reader who is reading that text for a specific purpose*. Readability is dependent upon many characteristics of a text and many characteristics of readers. Readability is what makes some texts easier to read than others. It is often confused with **legibility**, which concerns typeface and layout. (Dubay 2004).

Text readability is a measure of how well and how easily a text conveys its intended meaning to a reader of that text. The readability of text depends on various characteristics; according to Rottensteiner (2010) the most important are: the difficulty or complexity of content, the difficulty of the language itself, the quality of style, the readability of the print as well as the reference to the reader.

Edgar Dale and Jeanne Chall (1949) in DuBay (2004) provided a most comprehensive definition and one that is most relevant to this review. They define readability as the sum total (including all the interactions) of all those elements within a given piece of printed material that affect the success a group of readers have with it. The success is the extent to which they understand it, read it at an optimal speed, and find it interesting.

Readability formulae have been well researched as being indicative of whether a text will be understood by its intended readership and should be used, in conjunction with other factors. Defining and exploring this concept of readability according to Janan and Wray (2012) gave rise to a significant body of research from the 1920s to the early 1990s, one of the major outcomes of which was the production of a large number of “readability formulae”, that is, approaches to analysing texts which were designed to give a quantitative measure of the “level” a reader would need to be at in order to read and understand a particular text successfully.

The Cloze procedure was initially introduced as a measure of readability, but its usefulness was soon extended to include application to understandability. The cloze procedure as a tool for measuring readability in the mid-1950s stimulated the development of new criteria, new formulae, computerized versions, and the continued testing of text variables (Dubay, 2004). Wissing, Blignaut and Van den Berg (2016) posit that in a cloze test, a number of passages of equal length are selected from a text. Passages are then mutilated by deleting selected words and replacing the words with a standard sized blank space. The test is administered by requiring participants to guess the deleted words, gaining clues from words remaining in the passage. Where a high number of deletions are guessed accurately, the text is considered more understandable than

### **Factors affecting the readability of texts**

This study discovers that researches conducted on readability anchor on two general factors influencing readability; the text factors and reader factors. According to Graves & Graves (2003), factors affecting the readability of texts include vocabulary complexity; sentence and text structure; text length and elaboration; coherence and unity; familiarity of content and background knowledge required; audience appropriateness; quality and verve of writing; and interestingness. An elaborate explanation of each is beyond the scope of the present article. The number of difficult words in a text determines its readability. However, the question of what constitutes the difficulty of a word is itself neither simple nor consentaneous. The length and complexity of sentences may also contribute to text difficulty, with shorter, simpler sentences being more readable. Again, it is not a question of just counting the number of words per sentence. Short, choppy sentences may detract more from text readability than longer sentences with examples and illustrations meant to enhance comprehensibility. Elaborated text is easier to understand (Graves & Graves 2003).

Textual coherence relates to topic, subtopics and paragraph links in sentences that add to text readability. In terms of the nature of texts, narrative, story-like texts with language that closely approximates the ordinary language of everyday social interaction are easier to read than expository texts, which have more content dense vocabulary and are generally more challenging (Graves & Graves 2003). Content familiarity can also enhance text readability; however, there must of course be some unfamiliar material to extend the reader's knowledge. Again, familiarity is relative, which explains the difficulty in determining the readability of a text. Related to familiarity as a measure of readability is the extent to which textual material coincides with the readers' needs and interests.

Readability Factors according to Pitler and Nenkova (2008) include vocabulary, syntax, cohesion, entity coherence and discourse. Despite many researches share considerably the factors that determine the readability of a text, our study in this context employs that of Wray & Janan (2013). In their review, they explored two dimensions of readability by focusing firstly upon factors within the text itself, and secondly upon characteristics of readers:

### **Readability: factors within the text**

#### **(a) Word Difficulty**

Word difficulty has to do with the reader's/test taker's understanding of individual words. It has traditionally been measured by word length, with the assumption that longer words are harder to read than short ones. It is often suggested that short words are perceived as more familiar and long words as more formal or technical and there is research that suggests that readers pause longer on longer words (Wissing 2016).

Nevertheless, there have also been findings questioning the assumption that short words are always easier than long ones. There are, for instance, examples of monosyllabic words (e.g. adze, gneiss) found in lower secondary school text-books which are unlikely to be easy words for the pupils who read such books. Neither is it always the case that longer words are harder to read. There are very few seven to eleven year olds, for example, who will not be able to read and understand words such as tyrannosaurus and diplodocus. Such examples suggest that the length of a word is not the crucial feature in whether it can be read easily or not.

Children's motivation to read a word and their existing familiarity with it are much more significant indicators of reading ease.

**(b) Word Familiarity**

Word difficulty is affected by word familiarity. In previous readability research word familiarity has referred to those words that appear in word lists. It is presumed that words which appear on this list will be relatively easy for children to read and that words which do not appear will be unfamiliar and more difficult to read.

**(c) Sentence Difficulty**

The common belief regarding sentence difficulty is that the longer its sentences, the harder a text is to read. Hence, the average sentence length of a text has often been used to measure its difficulty. Most readability formulae have calculated this by dividing the number of words by the number of sentences in a text.

Care needs to be taken, however, in using sentence length as an absolute measure of reading difficulty. Short sentences may well convey conceptually difficult ideas. It is also argued that, at times, longer sentences are easier because they provide more clues to meaning and to the relationship between sentence elements. Nevertheless, there is evidence that sentence complexity can make a difference to readers' comprehension of a text. Thompson and Shapiro (2007) have identified four variables that contribute to sentence complexity: the number of propositions within a sentence, the number of embedded clauses, and the order in which major elements appear, from simple, active sentences such as subject-verb-object (SVO) to passive sentences (OVS), and the distance between crucial elements in the sentence.

**(d) Cohesion and Coherence**

Language features operating at the level of the word or the sentence may lead to accessibility issues, but one of the key features of a text is that it is not just a group of words and sentences. Instead, there is a structure in a text which glues the various text components together. In reading, the reader needs to construct a coherent, mental representation of the ideas which have been cohesively presented in the text. The term "coherence" is seen as the way ideas 'hang together' in a text and "cohesion" for the textual links through which coherent ideas are built up. The effects on readability of the cohesion and coherence of the texts used in assessment questions are often not explicitly considered by test designers.

Cohesion is defined as "the use of explicit linguistic devices to signal relations between sentences and parts of texts". These cohesive devices are phrases or words that help the reader associate items or statements in a text with others elsewhere in that text, or outside. Halliday and Hasan (1976) originally identified four general categories of cohesive devices in texts: Reference, Substitution and ellipsis, Lexical, Conjunction.

Studies of cohesion in reading show that it can make a substantial contribution to readability. It is however demonstrated that readers between the ages of eight and fifteen showed growth in their ability to perceive cohesion in text and to use it to support their comprehension.

This suggests that readers develop an awareness of cohesion over time and make increasing use of it to get meaning from print. However, if they lack sufficient experience and knowledge of the ways in which texts are cohesive and coherent, this can be a major hindrance to their comprehension. Other studies have suggested that readers' failure to comprehend a text can result from their inability to follow the flow of cohesive ties within the text. Yet, it seems that readers are not able to take advantage of increased cohesion unless they have sufficient reading skill. It seems important for teachers not only to work on improving learners' understanding of content, but also on their abilities to read to learn from texts (and their abilities to read effectively the ways in which assessment questions are typically written).

**(e) Content Structure and Complexity**

Well-written text requires, in addition to coherence and cohesion, a structure that readers can easily use to find the information they need and then to understand it correctly. Text can become confusing when information is inappropriately presented. When we read text, we build a collection of the concepts described therein, deducing these concepts from the words and phrases used within the text. We build certain interpretations out of these blocks of words which are not randomly organised, but obey quite strict rules of association.

When linguistic expressions combine into units for processing, many of the individual linguistic elements are ignored and the whole chunk is treated as one semantic unit. When a significant amount of information is conveyed in a relatively small amount of text, the reader can easily become confused. The greater the number of ideas expressed in a text, the more work is required of the reader to interpret the text correctly.

#### **(f) Legibility and Print Issues**

Studies of legibility have researched factors such as character size, thickness of strokes, white space between strokes, dissimilarity of characters, leading, line length, quality of paper, colour of paper, and colour of ink. Research has shown that legibility issues such as the size of font and typeface can affect reading and reading speed (Grayson and Wilson, 2009).

Text legibility is also influenced by the size of the font (see for example. Studies have shown that by increasing the font size the percentage of fluent reading is also increased but small font sizes (below 12 point) are thought to make reading increasingly difficult, and are more stressful to the visual system.

#### **Readability: Looking at the Characteristics of Readers**

Readability is the products of the features in a text and the characteristics of a reader. These characteristics will be examined in the following order:

##### **a) Physical Capabilities**

Having a disability or impairment can clearly influence a child's reading ability. Some examples of impairment that can affect reading include autism, dyslexia and ADD (Attention Deficit Disorder) and ADHD (Attention Deficit Hyperactivity Disorder). Children with ADD and ADHD have difficulties in concentrating on a task for any lengthy period of time. Autistic children need special teaching techniques as they are often unable to interact with others. Dyslexia affects a child's reading ability in that it might be difficult for them to translate images to language and this may cause difficulty in spelling and reading. There is also a range of physical capability issues which may affect readers, that is, readers who have specific learning difficulties, or hearing or visual impairments. Such issues are likely to have an even greater impact upon the accessibility of assessment texts for younger readers.

##### **(b) Reading Abilities**

Reading abilities enable the reader to read meaningful language, to read any written form with independence, comprehension and fluency, and to mentally interact with the message from the written form. Hence, the reader needs to master skills such as word attack and comprehension. It is obvious that, if a test taker is handicapped by lack of reading ability, then he/she will be much less likely to succeed in any form of text which involves reading, whatever the level of content knowledge he/she may have.

It is however suggested that what has become known as the "Matthew effect" that is, a pattern of increasing advantage or disadvantage in reading skill development following an initial advantage or disadvantage ("the rich get richer, the poor get poorer"), is very evident in test-taking situations. Poorer readers are less able to access effectively the written language through which they are tested, and thus demonstrate lower abilities, causing expectations about their achievements, and perhaps also the level of material upon which they are tested, to be depressed even further.

##### **(c) Engagement/Motivation**

Engagement or motivation in reading refers to the intrinsic drive to read for the knowledge and the enjoyment that it provides. Engagement is important as it drives the reader to use their best strategies for understanding and interpreting the text. There are many examples in the literature and in common experience of readers who can read beyond their normal levels when they are engaged and motivated by particular texts. It also seems to be the case that, while pupils in all countries have generally positive attitudes toward reading, those with the most positive attitudes tend to have the highest average achievement. In addition, motivational factors become more and more important as predictors of the ability to read for understanding as readers get older and develop their skills.

Research on test motivation suggests that this could be a crucial factor in obtaining high quality and accurate information from assessments in a range of subjects. One study found that test-taking motivation was positively related to subsequent performance on a cognitive ability test even after the effects of race and performance on the first test were controlled.

Although, as discussed above, the underlying reasons for the differential functioning of some items in assessments are still speculative, one of the most widely discussed explanations is test takers' interest in the content of assessments and/or their emotional reaction to this content.

##### **(d) Prior Knowledge**

Prior knowledge is an integral part of the comprehending process. Hence, prior knowledge influences what is understood from text. Not surprisingly, pupils who know more about a topic understand and remember content better than those who have a limited background in the domain. This factor also comes into play during test-taking. However, while understanding of a science text, as measured by performance on a set of assessment

questions, was positively affected by reading skill, it was prior knowledge that was a much more significant predictor of success.

One aspect of prior knowledge which has been extensively investigated is knowledge of the language of the assessment. Research conducted by Abedi and his colleagues (Year?) has demonstrated that there is a substantial link between pupils' English language proficiency and their performance on assessments (in English) in mathematics, science, and social studies. Furthermore, several studies have found that assessments that are more linguistically complex produce larger performance gaps between learners of English as an additional language (EAL) and native English speakers.

Prior knowledge also includes the social and cultural backgrounds of test takers. The schema theory of reading comprehension proposes that the organisation of prior knowledge in a learner's mind provides a framework which enables understanding of the setting, mood, characters, and chain of events in a text. Readers acquire meaning from a text by analysing the words and sentences against the backdrop of their own personal knowledge of the world. Readers who share the knowledge background of the writer of a text 'come equipped' with the appropriate schemas for making sense of this text. The absence of an appropriate schema might be expected to lead to misunderstandings, which could be very significant in a test situation.

#### **(e) Gender**

Gender differences in test responses have been commonly found in assessment research. This claim is clearly proved in the study by Breda and Napp (2019) using individual level data of 300,000 15 year old students in 64 countries. Their study showed that the difference between a student performance in reading and Math is 80% of a Standard Deviation (SD) larger for girls from boys. A magnitude considered as very large. That is to say the study found that, while male pupils were advantaged by the content of Science tests, particularly where they were required to bring to bear their existing, out-of-school knowledge, it was the format of the assessments which gave them the greatest advantage, with the use of diagrams being particularly salient.

However, although (redundancy) there is documented evidence of gendered differences in reading achievement, as well as attitude, choice, and response for some boys, considerable evidence also suggests that this is not the case for all boys.

## **II. CONCLUSION**

Reading is a lifelong activity. In fact educational success depends to a large extent on reading skills. Therefore, the skills of reading as an indispensable tool should be professionally handled and taught with all the consideration it deserves to especially ESL learners. Teachers/tutors, curriculum planners, book publishers/designers and reviewers must take into cognizance those factors that aided readability of texts in the course of learners' reading ability and comprehension. Text readability to ESL learners is however paramount if the goals of teaching and learning are generally to be achieved.

### **References**

- [1]. Adeniji, M. A. & Omale, A. (2010). Teaching Reading Comprehension in Selected Primary Schools in Oyo State, Nigeria. *Library Philosophy and Practice* (e-journal), 349. <http://digitalcommons.unl.edu/libphilprac/349>
- [2]. Breda, T. & Napp, C. (2019). Girls' comparative advantage in reading can largely explain the greater gap in Math-related fields. 111(31), 15435-15440. <https://doi.org/10.1073/pnas.1905779116>
- [3]. Dale, E. & J. S. Chall, J. S. (1949) The concept of readability. *Elementary English* 26: 23.
- [4]. Day, B. B. (2017). Exploring the relationship between use of a selected phonics program and the oral reading fluency and nonsense word fluency scores of first-grade students. Unpublished Doctoral Dissertation, Utah State University.
- [5]. Dubai, W. H. (2004). Impact information study on the Principles of Readability. Retrieved from <http://www.impact-information.com> Saturday 30th March 2019.
- [6]. Dreyer, L. G. (1984). Readability and responsibility. *Journal of Reading*. 27(4): 334 – 338
- [7]. Gradišar, M., Humar, I. & Turk, T. (2006). Factors Affecting the Readability of Colored Text in Computer Displays. A Conference Paper presented at 28<sup>th</sup> National Conference on Information Technology Interfaces ITI University of Ljubljana, June 19 – 22.
- [8]. Graves, M. F. & Graves, B. B. (2003). *Scaffolding reading experiences: Designs for student success*. Norwood, MA: Christopher-Gordon.
- [9]. Gupta, R. (2014). Expectation vs Reality: The Readability of text in the primary grades in India. *Procedia - Social and Behavioral Sciences* 116, 3916 – 3920.
- [10]. Halliday, M., & Hasan, R. (1976). *Cohesion in English*. New York: Longman.

- [11]. Janan, D.& Wray, D. (2012). Readability: The limitations of an approach through formulae. A Conference paper presented at the British Educational Research Association Annual Conference, University of Manchester, 4-6 September 2012
- [12]. Mahmud, T. (2008). A survey on teaching reading strategies used by ESL teachers that facilitate teaching and learning reading in English lessons. Unpublished B. Ed. Degree, University Malaysia Sarawak.
- [13]. Marima, E. W. (2016). A survey of approaches used in teaching reading in early childhood classes in Dagoretti and Westlands Divisions, Nairobi County, Kenya. *Journal of Education and Practice*, 7(33), 207-211.
- [14]. Ofuani, F. N. &Gbenedio, U. B. (2016).The effectiveness of three methods of teaching reading on students' achievement in comprehension. *Journal of Educational and Social Research*, 6(1), 17-21.
- [15]. Ogbemudia, M. I. &Alasa, V. M.(2014). Jolly phonics instructional strategy: A panacea to reading difficulty in childhood education. *Journal of Education Research and Behavioral Sciences*, 3(1), 001-006.
- [16]. Oyetunde, T.O. &Muodumogu, C.A. (1999). Effective English teaching in primary and secondary schools. Jos: Conference on Education and Improvement (CEI).
- [17]. Oyetunde, T. O., Ojo, G. Korb, K. A. &Babudoh, G. (2016).Improving literacy instructional practices in primary schools in Nigeria: Strategies that work. *Literacy Information and Computer Education Journal*, 6(2): 2323- 2328.
- [18]. Pikulski, J. (2002). *Readability*. Boston: Houghton Mifflin.
- [19]. Rottensteiner, S. (2010). Structure, function and readability of new textbooks in relation to Comprehension. *Procedia Social and Behavioral Sciences* 2 (10) 3892–3898
- [20]. Sibanda, L. (2014). The readability of two Grade 4 natural sciences textbooks for South African schools. *South African Journal of Childhood Education*. 4(2): 154-175
- [21]. Snyman, M. E. (2004). Using the printed medium to disseminate information about psychiatric disorders. *South African Psychiatric Review*, 7(4), 15 – 20.
- [22]. Talley, L. A. (2017). Best teaching strategies to help struggling readers. Unpublished Doctoral Dissertation, Carson Newman University.
- [23]. Thompson, C., & Shapiro, L. (2007). Complexity in treatment of syntactic deficits. *American Journal of Speech-Language Pathology*, 18, 30-42.
- [24]. Wissing, G., Blignaut, A. S, & Van den Berg, K.(2016). Using readability, comprehensibility and lexical coverage to evaluate the suitability of an introductory accountancy textbook to its readership. *Stellenbosch papers in Linguistics*, 46, 155 – 179.
- [25]. Wray, D. &Janan, D. (2013). Exploring the readability of assessment tasks: the influence of text and reader factors.*Multidisciplinary Journal of Educational Research*, 3(1), 69-95.
- [26]. Zamanian M.&Heydari P. (2012). Readability of texts: state of the art. *Theory and Practice in Language Studies*, 2(1), 43-53

Mohammed Sani Abdullahi, et. al. "An Appraisal of the Efficacy of Measures of Readability in Identifying Level of Text Difficulty among Theintermediate Esl Learners." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 25(7), 2020, pp. 59-65.