

Research Article

The Effect of The Use of Online Dictionary on Reading Accuracy: Case of Grade 10 English First Additional Language Learners at Dendron Secondary School

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Abstract

The aim of this study was to investigate the effects of using online dictionaries to improve grade 10 learners' reading skills at a rural public junior secondary school in Bochum East circuit in Capricorn North District, Limpopo province, South Africa. Data was collected using semi-structured interviews and data was analysed thematically. The diverse data collection tools used in this study include interviews, reading and experiment as the researcher was testing if online dictionary could help learners to overcome their reading problems. Results of the study revealed that the usage of online dictionaries improved learners' pronunciation as well as their vocabulary usage abilities. Results also revealed that participants are willing to use online dictionaries in vocabulary learning because it helps them with pronunciation as well as how to use the word in a sentence. The most frequent perceived benefits of online dictionaries are the speed of accessing the meaning of new vocabulary and getting clear correct pronunciation of them.

Keywords: *Electronic device, online dictionary, second language reading accuracy, reading speed and pronunciation*

Introduction

Reading is a fundamental process to a successful, better tomorrow because failure to master reading at a primary level may disadvantage learners as most learning is done through reading. In support of the above statement, Pretorius and Klapwijk (2016) assert that reading is of great importance in education and in academic performance because failure to develop reading proficiency at school level impacts heavily on academic performance at tertiary level. Therefore, it is imperative that reading in English First Additional Language (EFAL) must be given priority and be taught at an early stage, as it is the foundation of learning a language which has huge influence on learner's academic performance. Zuze and Reddy (2014) posit that proficiency in reading lays the foundation for personal development, and that is the definite link between reading literacy and educational opportunities and wellbeing. In other words, reading forms part of our everyday lives and it should be mastered at primary school level so that learners don't struggle at tertiary level. However, literacy level among learners is still low and many educators in South Africa believe that learners do not have well developed reading abilities (Hugo, Le Roux, Muller, & Nel, 2005; Spaull, 2013; Msila, 2014; Bharuthram, 2012). Thus, researchers were motivated to investigate whether the online dictionary can improve learners' reading proficiency or not.

Consulting a dictionary during reading is an integral part of the reading process. Dictionaries, either online or paper based, play an important role in changing the lives and education of learners and grooming them to be better readers for future. Moreover, as electronic dictionaries replace print

dictionaries (Liang & Xu, 2018), the emergence of electronic dictionaries has added a new and valuable resource for vocabulary learning (Rezaei & Davoudi, 2016). The advantage of online dictionary is that it saves time as it is easy to find more information beyond pronunciation and meaning. In other words, in addition to reading dictionaries, students can also hear pronunciations, watch illustrative videos and use other functionality (Zheng & Wang, 2016), and therefore, find the meaning of difficult vocabulary, ascertain its meaning based on contextual information, and learn more meanings of the word in other contexts, with different collocates and constructions (Bensoussan, 1983). This view is also reflected in dictionaries being commonly considered among the language learning aids much favoured and mostly used by language learners (Laufer, 2011). In addition, online dictionary plays a vital role in teaching learners how to pronounce both familiar and new words and use them in sentences. Olimat (2010) and Hamdi (2015) affirm that students who use the electronic dictionary save more time and effort because it is a fast effective tool which gradually replaces the heavy paper dictionary as a result of rapid development of technology, which encourages them to look up for more words with enthusiasm.

However, Bensoussan, Sim and Weiss (1984) argue that language teachers repeatedly get perplexed about the role of dictionaries in reading and many of them often discourage the use of dictionaries believing that dictionaries do not help learners to comprehend vocabulary in context because learners overuse dictionaries at the expense of developing their self-confidence and the ability to guess from context. In other words, teachers are concerned about learners' excessive read-through of dictionaries which interferes with short-term memory and hinders the comprehension processes, which, in the end, may lead learners to lose focus of what the comprehension is all about. In this way, dictionaries can be cognitively disruptive. In addition, some teachers worry about vocabulary learning which may result from learners' use of bilingual dictionaries too blindly or from learners expecting a one-to-one correlation between their own language and English (Hamdi, 2015). In this instance, the use of online dictionary could cause a lot of distraction and may cause learners not to understand what they are reading as they will be frequently checking the dictionary, and they may end up lacking knowledge of words as they will always depend on dictionaries for meaning, spelling and how to use them in sentences.

Boonmoh (2010) lists some disadvantages of online dictionary. Firstly, he notes that some teachers are unfamiliar with their lexicographical content. Secondly, using the electronic dictionary requires different skills. Thirdly, it is very expensive compared to the paper printed dictionary in addition to the need for batteries. However, he mentions some positive points for this dictionary, such as having extra facilities like calculator, clock, calendar, memory card and others, providing the user with correct pronunciation and availability in different styles and colours. The electronic dictionary affects the teaching and learning process as it comes in an electronic device which may lead learners to lose focus and concentration during the lesson as they may open other unnecessary applications which are not part of the lesson. Thus, this study seeks to investigate vocabulary learning strategies which could demonstrate that language learners can find new vocabulary on their own by using online dictionaries to improve learners' reading speed, accuracy and pronunciation.

Aim of the Study

The aim of this study was to investigate the effects of using online dictionaries to improve grade 10 learners' reading skills at a rural public junior secondary school in Bochum East circuit in Capricorn North District, Limpopo province, South Africa.

Context of the Study

This study took place at a rural public junior secondary school in Bochum East circuit in Capricorn North District, Limpopo province, South Africa. Learners in this study have limited English language

access outside the school due parents' inadequate literacy and English proficiency. The school is situated in a community which dominantly speaks Sepedi language, which is taught at school as learners' home language and English as First Additional Language.

Research Methodology

The researchers chose quantitative research methods for collecting numerical data to explain the phenomenon in question, since particular questions seem immediately suited to being answered using quantitative methods. Thus, quantitative research in this study helped researchers to make statistical observation in order to be able to compare the findings and determine whether online dictionary is effective or not in improving learners' reading proficiency. In this case, the researchers observed learners on two occasions, and the first observation aimed to discover learners' reading problems and then the second observation was done to check if online dictionary was able to resolve their reading problems.

Participants

The participants for this study included grade 10 learners (5 boys and 5 girls) aged between 14-16 years whose home language is Sepedi language in English First Additional Language classroom. The purposive non-probability sampling was adopted. The researchers chose non-random sampling after it was discovered that a rural public junior secondary school in Bochum East circuit in Capricorn North District, Limpopo province, South Africa is privileged to have electronic gadgets (tablets) that were used by researchers to determine their effectiveness towards improving reading through online dictionary. In order to collect data for this study, the researchers used "purposive sampling" which involves selecting participants based on characteristics of a population and the objective of the study (Crossman, 2020). The reason behind purposive sampling is to focus on those learners who are having reading difficulties.

Data Collection Tools And Process

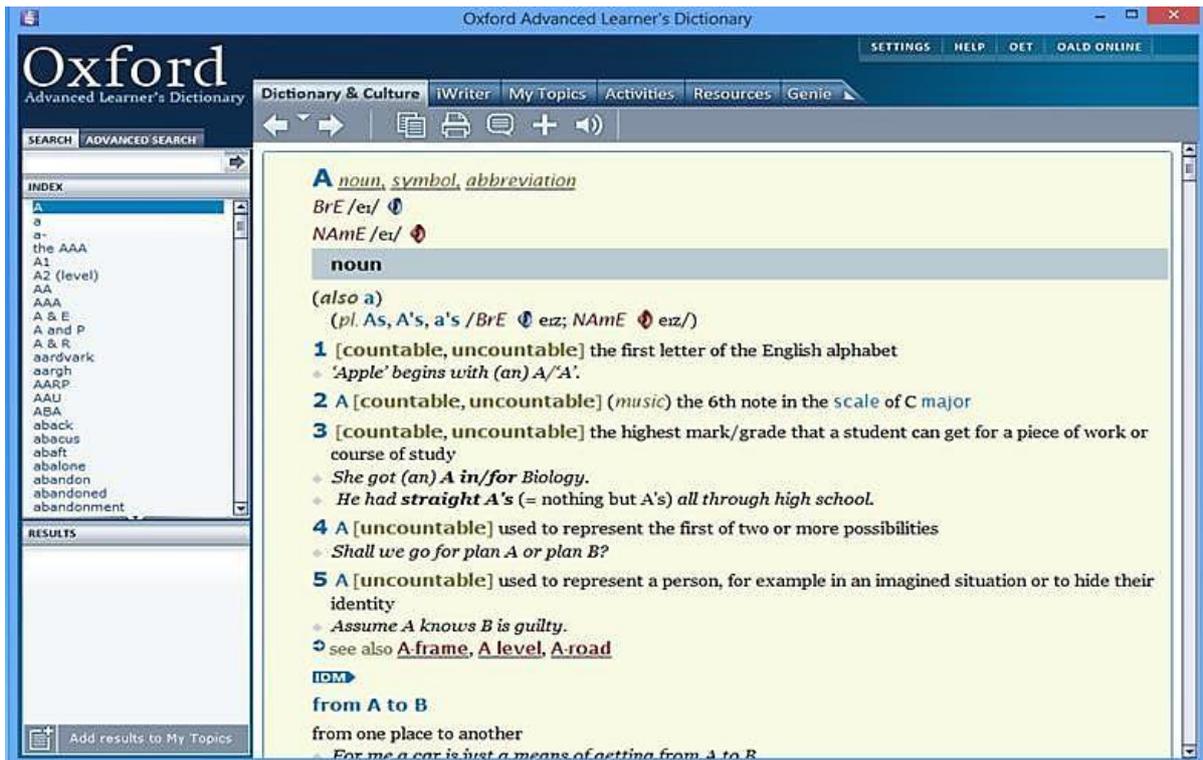
The reasons for choosing particular data collection and analysis methods are always determined by the nature of what you want to find out, and the particular characteristics of your research problem, and the specific sources of information (Wisker, 2008).

Observation

The researchers chose observation which is the process used to identify the problems of reading through reflection to check if online dictionary can be effective through the use of comprehension passage to check if online dictionary will be effective or not. The observation took place in a classroom during afternoon classes. Only 10 learners were given a comprehension passage to read aloud and researchers used a table to write down the results of observation of reading speed in minutes, accuracy (number of errors omitted) and pronunciation (number of pronunciation errors). This instrument allowed the researchers to get concrete information based on the information gathered rather being told by others.

1. The process of online dictionary application

A group of 10 learners were taught how to use online dictionary with their tablets that the school supplied them with. The researchers helped learners to connect to Wi-Fi so that each and every tablet would access internet. The process of teaching learners took about 8 weeks (2 months) and attended once a week as learners were coming to school once a week because of COVID-19 regulations. The researchers taught them how to search for words fast, for example, the learner opened Google website and then type the word they are looking for, which automatically takes them straight to the word. Then from there, they found the word, its definition, its synonym, its antonym and how to use the word in different sentence. It also indicates the part of speech its falls under.



Headword. This is the word you searched for.

Type of word. E.g. Noun, verb, adjective.

Pronunciation. Click here to listen to the word.

Phonemic transcription. This tells you how to say the word correctly.

Definition. This tells you what the word means.

More definitions. If there is more than one definition for a word, they are ordered by frequency of use so the most common definition comes first.

Example Sentence. This shows you how to use the word in an example sentence. You can use this structure to help write your own sentences.

Synonyms and related words. You can click on this to find words that have a similar meaning in the thesaurus.

Independent - definition and synonyms

ADJECTIVE

Pronunciation

/ˌɪndɪˈpendənt/

1. ruled by its own government, rather than controlled by another country

The republic was declared a fully independent state.

independent from: *The Republic of Brazil became independent from Portugal in 1822.*

Synonyms and related words

Words used to describe systems and types of government:
absolute, absolutist, autonomous...

[Explore Thesaurus](#)

a. not employed or controlled by a company

Many TV companies commission all their programmes from independent producers.

Synonyms and related words

Words used to describe workers:
acting, auxiliary...

[Explore Thesaurus](#)

b. not belonging to any political party

He stood as an independent candidate.

Synonyms and related words

Relating to political parties and their supporters:
apolitical, bipartisan, critic...

[Explore Thesaurus](#)

During the process, learners were individually given a comprehension passage (soft copy) and then they read for the first time in silence (skimming and scanning), so that when they come across a word they do not know how to pronounce, they will be able to minimize and search the word from the online dictionary so that they know how they can pronounce it and use it in a sentence. They were also advised by the researchers to bring along a note book where they write all the words they find difficult with their definitions as it would help them to practice those words in future or memorise them while reading.

Data Analysis

Results of quantitative observation are derived using statistical and numerical analysis methods. Inferential statistics were used to describe and analyse the basic features of the data in a study to provide simple summaries about the sample and the measures learners' reading proficiency focusing on reading speed in minutes, accuracy (number of errors omitted) and pronunciation (number of pronunciation errors) to determine the roots of their reading problem before introducing them to an online dictionary.

Significance Of The Study

This study will contribute to the field of English First Additional Language learning both in terms of pedagogy and research. This study will also offer significant pedagogical implications for English First Additional Language teachers in South Africa to recognize the pedagogical value in addressing the causes and challenges of poor reading among Grade 10 learners.

Discussion of the Findings

The aim of this study was to investigate the effects of using online dictionaries to improve grade 10 learners' reading skills at a rural public junior secondary school in Bochum East circuit in Capricorn North District, Limpopo province, South Africa. The analysis of quantitative observation data unearthed the themes for interpretation and discussion of findings as indicated in the table below for pre-experiment and post-experiment of online dictionary usage for comprehension passage reading.

Participants	Reading speed in minutes	Number of language errors committed	Number of pronunciation errors	Reading speed in minutes	Number of language errors committed	Number of pronunciation errors
L1	10 min	25	15	7min	10	5
L2	9 min	20	15	5min	8	6
L3	10 min	28	10	7min	15	6
L4	8min	15	10	5min	2	1
L5	9 min	20	15	5min	5	2
L6	10 min	26	15	6min	5	2
L7	10 min	25	19	6min	10	3
L8	8 min	15	9	5min	5	3
L9	7min	10	8	5min	1	0
L10	9 min	19	14	5min	3	2
Total	90	1193	130	57	64	28

2. Pre-Experiment of Online Dictionary

Learners were observed in the first session of comprehension passage and taken through the use of online dictionary. The researchers gave learners 10 minutes to go through the comprehension passage before reading aloud to the whole group of 10 learners focusing on reading speed in minutes, accuracy (number of errors omitted) and pronunciation (number of pronunciation errors) to determine the roots of their reading problem before introducing them to an online dictionary. The pre-experiment observation results are interpreted and discussed below as shown in figure 1.1:

3. Reading speed

During observation process, the study found that learners are having serious reading problems as shown in figure 1. The overall time that was taken by all learners to read the comprehension is 90 minutes. 4 out of 10 (40%) spent 10 minutes each to read comprehension passage. 3 out of 10 (30%) learners spent 9 minutes each to complete reading comprehension. 2 out of 10 (20%) learners spent 8 minutes each to complete reading the passage. 1 out of 10 (10%) spent 7 minutes to complete reading

the passage. The information obtained from the table proves that all 10 learners are generally slow in reading. The study found that the main challenge that the learners had was the inability to deal with new words. The study revealed that the reading speed depends on the learners' knowledge of words and how familiar they are to reading. The other challenge might be the fact that these learners who are slow in reading do not get regular opportunities to read in class. This suggests that teachers tend to give learners who can read fluently more opportunities to read in class rather than those with challenges.

Accuracy

The researchers observed learners' reading accuracy in terms of how fluent they are when they read and how many reading errors they commit during the reading phase. The statistics show that learners committed 1193 errors in total when they were reading comprehension for the first time. All the 10 learners (100%) committed language errors ranging from 10-28. Participant L9 had the least language errors (10) language errors. Participants L8 and L4 had relatively fewer errors as well. Participant L10 committed 19 language errors while L2 and L5 committed 20 language errors each. Participants L1 and L7 were tied on 25 errors each. The highest number of errors were committed by L6 (26 errors) and L3 (28 errors). During the reading phase, learners were not quite sure of exactly what they were reading as they would pause along the lines or skip some words; they didn't know how to say them or read something that does not appear in the comprehension. Learners read slowly and along the way they pause because they are unable to pronounce that word that led them to fail understanding what they are reading.

4. Pronunciation

The study found that learners have a major problem in pronouncing words as statistics indicate that 130 errors were committed. Participant L7 committed the highest number of pronunciation errors (19). Participant L1, L2, L5, L6 committed 15 pronunciation errors each. Participants L3 and L4 committed 10 pronunciation errors each. L10 was the only one that committed 14 pronunciation errors. Lastly, L8 committed 9 pronunciation errors while L9 committed 8 pronunciation errors. Learners are unable to pronounce words correctly which leads them to fail reading fast and fluently. The main problem is the same as in all the other themes, which is, their failure to recognize words and their inability to pronounce words correctly which causes them not to understand what they will be reading at that particular time.

Post-experiment of online dictionary

Then in the second session after they acquired knowledge about the use of online dictionary, they were assessed to check if they had improved their reading problems. The learners were made to read a different comprehension passage. In the second session, learners were reading for the second time, while the researchers checked their speed, fluency and pronunciation of words. The researchers gave learners 10 minutes to go through the new comprehension passage before reading aloud to the whole group of 10 learners. The post-experiment observation results are interpreted and discussed below as shown in figure 1.1:

Reading speed

The overall time that was spent by all learners to read the comprehension reduced from 90 minutes to 57 minutes which is a notable improvement from the first session. Participants L1, L2 and L7 in the first reading speed spent 10 minutes and second session spent 7 which is the improvement of 3 minutes. In the first session, reading participant L6 spent 10 minutes and during the second session spent 6 minutes which is an improvement of 4 minutes. In the first session participants L2, L5 and L10 spent 9 minutes and in the second session spent 5 minutes which is an improvement of 4 minutes. In the first session participants L4 and L8 spent 8 minutes and the second session spent 5 minutes which is an improvement of 3 minutes. In first session, participant L9 spent 7 minutes and second session spent 5 minutes which is an improvement of 2 minutes. All the 10 participants could search for a new word they come across while skimming and scanning and look up for it and its meaning as

well as its pronunciation. Reading became easier for them at that time and they could read faster than before.

5. Accuracy

The number of errors they committed in the first session and the second session indicates a huge improvement as in the first session they committed 1193 language errors whereas in the second session they only committed a total of 64 mistakes. The learner that had the highest number of language errors had a great improvement. In the first session, L3 committed 28 language errors and in the second session only 15 language errors. In the first session, L2 committed 26 language errors and in second session improved to 5 language errors. In the first session, L1 and L2 committed 25 language errors but in the second session they improved as they committed only 10 language errors. In the first session, L2 and L7 committed 20 language errors and in the second session they improved as they only committed 5 language errors. In the first session L6 committed 19 language errors and in the second session improved to only 3 language errors. In the first session, L3 and L8 committed 15 language errors and in the second session improved to 2 language errors. In the first session, L9 committed 10 language errors and improved in the second session to only 1 language error. All the learners showed a great improvement and they were more fluent than before. Searching for online pronunciation helped them to read faster than before. Instead of pausing every now and then they tried to figure out the pronunciation, they already knew it as they had already searched for the word from online dictionary. After the learners were taught how to check for the words which they don't know from online dictionary, they were now able to check for the pronunciation and reading became easy for them. This shows that learners with reading problems if they are given opportunities and guidance on how to read they will be better readers.

6. Pronunciation

Learners showed a great improvement in their pronunciation of words in the second session. In the first session, learners made 130 pronunciation errors and in the second session, they improved to only 28 pronunciation errors which is a significant improvement. The learner that had the highest number of pronunciation errors had a great improvement as in the first session, L7 committed 19 pronunciation errors and in the second session only 6 language errors were committed. In the first session, L1 and L2 committed 15 pronunciation errors and in the second session improved to 6 pronunciation errors. In the first session, L5 and L6 committed 15 pronunciation errors but in the second session, they improved as they only committed 2 pronunciation errors. In the first session, L10 committed 14 pronunciation errors and improved in the second session to only 2 pronunciation errors. In the first session, L3 committed 10 pronunciation errors and in the second session they improved as they only committed 6 pronunciation errors. In the first session, L4 committed 10 pronunciation errors and in the second session improved to only 1 pronunciation error. In the first session, L8 committed 9 pronunciation errors and second session improves to 3 pronunciation errors. In the first session, L9 committed 8 pronunciation errors and improved did not commit any pronunciation error in the second session.

These statistics prove that online dictionary has a positive impact towards improving learners reading inabilities. The most important thing is that the learners can pronounce the words correctly. It became a bit of a challenge as learners were not pronouncing the words in accordance with the pronunciation of the online dictionary but after using online dictionary they were able to pronounce words correctly. They all had an improvement in their pronunciation though it was a bit of a challenge. In the end, they were able to grasp how to pronounce words and throughout the reading phase they were able to pronounce almost all the words correctly, which is quite a great improvement. The study found that during the first reading session of observation learners were really struggling to read and recognizing words in terms of how they are supposed to be pronounced. After they were taken through the use of online dictionary, they revealed a great improvement as they were getting used to reading using the

online dictionary. When they come across a word, they did not know, they would check it in their online dictionary and see how is supposed to be pronounced which also boosted their confidence and led them to fall in love with reading.

Conclusion

The aim of this study was to investigate the effects of using online dictionaries to improve grade 10 learners' reading skills at a rural public junior secondary school in Bochum East circuit in Capricorn North District, Limpopo province, South Africa. The study found that an online dictionary can be effective towards learning as learners had so much improvement after they were taken through the use of online dictionary. The findings also indicate that learners improved their reading speeding from 90 minutes overall to 57 minutes due to the use of online dictionary as well as reading accuracy, from 1193 language errors to 64 language errors. The study further indicates that there was a huge improvement of pronunciation of words from 130 to 28 pronunciation errors due to the use online dictionary.

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