Chapter 25

Google Lens: A Potential Aid for Vocabulary Learning among Lower Primary Pupils

Pang Zi Yue, Swaran Raj Sahadevan, Thirumangai Rajendran, Hemalatha Devarajoo, Luiza Ann Kumarsir & Melor Md Yunus

Faculty of Education, Universiti Kebangsaan Malaysia, Bangi, Malaysia

pangziyue93@gmail.com

ABSTRACT

Proficiency of writing in English language is considered as one of the most fundamental skills to be mastered by the Malaysian primary school pupils in order to get their message across clearly in their written work as well as to meet the demands of globalization. However, writing is classified as a crucial skill to be developed among lower primary pupils as it requires them to have a strong foundation of vocabulary in order to write better. In line with this, a research has been conducted among Year 2 pupils in four different schools consisting of national and national-type primary schools located in both urban and rural areas in Peninsular Malaysia to see if the use of Google Lens in teaching and learning helps the pupils to acquire richer vocabulary compared to conventional activities for writing. The use of Google Lens embraces the 21st century learning concept which is indeed a core substance stipulated in the Malaysian Education Blueprint. Google Lens is an application that does not only scan and detect an object or a picture, but understands what it detects. Google Lens has provided the pupils with the opportunity to learn new vocabulary and enable them to use high frequency words accurately in guided writing based on the CEFR English syllabus’ topics. By introducing this as one of the platforms in the educational classroom, pupils were seen to be actively engaged during their writing activities as to obtain words needed through scanning and discuss them with their peers before penning down their ideas. The effectiveness of Google Lens in gazing for words is measured with the difference in results shown between the pre and post test conducted among the pupils. Questionnaires were also provided to obtain the pupils’ perceptions in using Google Lens towards learning vocabulary. Findings indicate that pupils performed significantly better in the post test, demonstrating the effectiveness of Google Lens used in this study on learning vocabulary. The findings of this study are hoped to provide primary school English language teachers with insights into the benefits of using Google Lens as an innovative way of teaching vocabulary in line with the emerging needs of using technology in education.

Key Words: Writing skills; Google Lens; Mobile applications; Vocabulary learning
1.0 INTRODUCTION

Alqahtani (2015) opined that vocabulary knowledge is a crucial tool for learners especially ESL learners as inadequate lexical knowledge obstructs communication. Pupils need to possess adequate lexical knowledge to comprehend plots of stories during reading, respond to instructions apart from having the ability to convey information and communicate orally or in written form. Hence, this study has focused on enriching Year 2 pupils’ vocabulary learning by using Google Lens mobile application as an aid in instructional process.

2.0 PROBLEM STATEMENT

The pupils in our Year 2 classes face difficulties in identifying words or phrases due to lack of lexical knowledge. Therefore, they were not able to converse or write sentences in the target language. For example, they were oblivious to most of the realia or pictures shown during lessons such as dresses, spades and shovels, therefore, they were unable to come up with words for the realia or pictures shown due to scarce of lexical knowledge.

3.0 LITERATURE REVIEW

According to Harmon (2012), many empirical studies proved that the usage of mobile phone apps reinforced learners’ grammar, vocabulary, speaking, reading and writing skills. Wang, Teng and Chen’s (2015) study on college level English learners proved that learning vocabulary via Word Power app is more effective compared to the conventional method. The experimental group which learned vocabulary via the app portrayed higher engagement and motivation and therefore performed better compared to the control group which learned vocabulary via the semantic map method. Shapovalov et.al (2018) reported that instruments such as Google Expedition and Google Lens are suitable in classrooms as it aids in self-educational process, allows learners to be responsible for their own learning and increase learners’ knowledge on objects and words. Thus, learners will be constantly engaged during activities to obtain the information needed and discuss them with their peers.

Shapovalov et.al (2018) further stated that the Google lens allow learners to gain information independently and continuously construct knowledge on their own. This is related to the discovery learning theory by Jerome Bruner. Bruner (1966) claimed that pupils learn best by organising information via a coding system and in order to allow development of the system, pupils should discover the information rather than provided by the teacher. Bruner (1966) further proposed that pupils should explore and manipulate objects while teachers provide guidance and support throughout the teaching and learning. This app facilitates discovery learning as pupils construct knowledge via scanning items and pictures to find out the words. In the process of doing so, pupils will come across different words that are related and not related to the object. The pupils will have to collaborate, discuss and relate the words to the scanned object and therefore
pupils are extending their network of vocabulary. Thus, pupils are responsible for their own learning and constantly build new vocabulary via Google lens.

It is significant to note that very little research has been carried out on Google lens in teaching and learning. Shapovalov et.al (2018) opined that this is due to scarce knowledge on this particular app. However, based on the literature above, since it is claimed that the app increase learners’ knowledge on words and phrases, it is beneficial to examine how this app can aid pupils in learning adjectives and therefore established in the curriculum milieu. As an attempt to address the inadequacy of literature provided in this area of study, this research therefore highlights on the use of Google lens in improving Year 2 pupils’ vocabulary.

4.0 METHODOLOGY

Research Design
This quasi-experimental research employed pretest, post test and questionnaire to investigate the effectiveness of Google Lens mobile application in helping the participants to learn vocabulary in comparison to learning vocabulary through conventional method. The research questions that guided this study were i) Is there a significant difference between learning vocabulary through conventional method and learning vocabulary through Google Lens mobile application among participants? and ii) What are the participants’ perceptions on the use of Google Lens application in learning vocabulary?

Participants
The number of participants who took part in this research was 68 Year 2 pupils from four different schools consisting of two national primary schools, a national-type Chinese primary school and a national-type Tamil primary school which is also a “Sekolah Kurang Murid (SKM)” located in both urban and rural areas in Peninsular Malaysia. Convenience sampling was employed while selecting the participants. The level of the participants can be defined as intermediates and beginners as they have scored Band 2 and Band 3 for their writing skills in classroom-based assessment according to the CEFR scoring rubric. The participants were divided into two groups randomly; control group and experimental group. The control group was taught vocabulary using conventional method whereas the experimental group has undergone the intervention of using Google Lens mobile application.

Instruments
The data collected for this research was done in three phases. In the first phase, data was collected by administering pre test for both control and experimental group. The pre test required the participants to complete a rebus writing passage by replacing 12 pictures given with correct words. All the words were chosen in relation to the topic “At the Beach” from the Year 2’s Superminds Textbook under CEFR syllabus. Next, the experimental group was introduced to learning vocabulary through the use of Google Lens mobile application while the control group learned vocabulary through conventional method for two consecutive weeks. The second data collection involved the
administration of post test for both the groups. The final phase of data was collected through questionnaires in order to obtain the experimental group participants’ perceptions and feedback on the use of Google Lens mobile application in learning vocabulary. The questionnaire contained 10 statements which require participants to colour a happy emoticon indicating ‘Agree’ and sad emoticon to indicate ‘Disagree’.

5.0 RESULTS AND DISCUSSION

The data collected through pre test and post test for both control and experimental groups has indicated that there is a significant difference between learning vocabulary through conventional method and learning vocabulary through the use of Google Lens mobile application thus answering a “Yes” for the first research question.

Table 5.1 Difference of mean between pre test and post test for both control and experimental groups

<table>
<thead>
<tr>
<th></th>
<th>School W</th>
<th>School X</th>
<th>School Y</th>
<th>School Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>1.4</td>
<td>1.7</td>
<td>1.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Experimental group</td>
<td>3.7</td>
<td>7.0</td>
<td>1.8</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Based on the results above, it is apparent that the differences of mean between pre test and post test for the experimental groups are relatively higher as compared to the control group. The use of Google Lens mobile application has proven helpful in improving pupils’ vocabulary learning and acquisition. This positive outcome coincides with Zaki, A. A., and Yunus, M. M. (2015) that there is a relevant need for the educational technology to turn to mobile assisted language learning (MALL) in the long run.

Table 5.2 Questionnaire responses from the experimental group participants

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>1</td>
<td>I believe that Google Lens helps me to learn new words in English.</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>I feel confused when using Google Lens in the classroom.</td>
<td>90.0%</td>
</tr>
<tr>
<td>3</td>
<td>I enjoyed learning English while using Google Lens.</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>I find it difficult to use Google Lens in the classroom.</td>
<td>92.8%</td>
</tr>
<tr>
<td>5</td>
<td>I was able to work with my friends while using Google Lens during English lesson.</td>
<td>95.2%</td>
</tr>
<tr>
<td>6</td>
<td>I was able to learn new words by my own by using Google Lens.</td>
<td>100%</td>
</tr>
<tr>
<td>7</td>
<td>I was able to write better by learning new words using Google Lens.</td>
<td>94.8%</td>
</tr>
<tr>
<td>8</td>
<td>I will teach my friends to use Google Lens for learning new words.</td>
<td>100%</td>
</tr>
<tr>
<td>9</td>
<td>I will use Google Lens to learn new words at home.</td>
<td>100%</td>
</tr>
<tr>
<td>10</td>
<td>I want my teacher to use Google Lens during English lessons.</td>
<td>100%</td>
</tr>
</tbody>
</table>
Data collected through questionnaire has generally depicted impressive feedback from the participants on the use of Google Lens mobile application for their vocabulary learning and provided constructive answers for the second research question. The responses above indicate that the participants of experimental group are in favour towards the use of Google Lens mobile application in learning vocabulary. They have not only agreed that Google Lens helps them in learning new words and make the lesson more interesting but they have also agreed to use the application to continue learning at home. This certainly confirms that the use of mobile application in language learning can promote autonomous learning and this is an advantage as Suneetha (2013) said that the experience of being independent can encourage students to continue their learning process by themselves for future purposes. Nevertheless, participants’ yearning towards the use of Google Lens in English lessons gives an impactful message to all educators to consider using mobile learning as an extension of existing teaching and learning tools (Samsiah et al., 2013).

6.0 CONCLUSION AND RECOMMENDATION

In conclusion, the use of Google Lens mobile application has shown positive results and proves to be a potential aid for vocabulary learning among lower primary pupils in both national and national-type schools. The use of Google Lens has made the learning more meaningful, fun-filled, active and autonomous thus promoting self learning among pupils. There have been numerous studies done on MALL however none is done among lower primary pupils. Therefore, the implication of the findings suggest that Google Lens can be further developed and used as an aid to transform the teaching and learning to be more creative and innovative especially by lower primary educators. Nevertheless, future researchers are recommended to extend this study by ensuring the presence of proper smart mobiles and strong Internet connection for promising results.

REFERENCES


