

ENHANCING VOCABULARY DEVELOPMENT AND READING COMPREHENSION THROUGH DRILLING AND CONSISTENT EXPOSURE

^aFarahdiba Md Said

^bAinun Juhariah Hussin

POLITEKNIK IBRAHIM SULTAN

^afarahdiba@pis.edu.my

^bainun@pis.edu.my

Abstract: *Drilling and consistent exposure of target words have normally helped in developing children's vocabulary. Still, such method is common and has positive impact on normal hearing students. For hearing loss students, many believe that vocabulary development is not an easy task to achieve as they seem to find it difficult in retaining information for a longer period of time. According to Isakovic and Kovacevic (2015), hearing loss students have 'great difficulties in understanding written...words' especially as their 'first and primary language' is sign language. This study looked into the impact of drilling and consistent exposure of target words on semester 3 graphic students with hearing loss. The outcome seemed to be rather unexpected. Out of seven students being tested, only three did not seem to do well. Thus, the study shows that drilling and consistent exposure teaching method, in the form of "follow-in, labelling strategy" (Lund and Douglas, 2016) could be helpful to some students with hearing loss.*

Keywords: hearing loss, vocabulary development, drilling and consistent exposure teaching method, follow-in labelling strategy

INTRODUCTION

Language is the key to a child's ability to communicate and socialize. In fact, with language, a child could definitely become successful academically and vocationally. However, the language would not have been conquered unless the vocabulary knowledge has been well developed.

According to Bloom (2000), a normal-hearing graduate from an American high school should have acquired understanding of more than 60,000 words. With such big volume of words, the graduate is believed to be able to function as an effective and meaningful human being in terms of reading, writing and speaking. A child, however, with hearing loss would be at a great disadvantage as "learning language is the single greatest challenge" (Turnbull et al, 2002). The inability to hear spoken words has ripped the chance for the hearing loss child to possess the vocabulary knowledge (Barker, 2003). So, a child with hearing loss would, unfortunately, be lagging behind. Lagging behind in vocabulary knowledge can lead to not only poor academic outcome but also professional success (Cheng & Furham, 2012).

Based on research carried out by Mitchell and Karchmer (2004), in America, 5% of the hearing loss population was born to deaf parents. This 5% are in an advantage situation as they are exposed to sign language immediately. Such exposure would mean that their language development is somewhat similar to the pattern of the normal hearing children. (Mac

Sweeney et al, 2007). There might be a language difference from the normal hearing children but the "natural or visual language" enables them to possess vocabulary knowledge in which contributes to them being able to function meaningfully and effectively. Unlike the hearing loss children who were born to normal hearing parents, their exposure to sign language is delayed. Thus, there is a possibility that their language development is hindered.

Nonetheless, this is being contradicted by Kirk and Gallanger (1989). According to Kirk and Gallanger, sign language does not share the same grammar and syntax elements like the normal hearing children's language. So, the hearing loss children will, still, have problem function meaningfully and effectively in the world that is populated by the normal hearing.

To overcome such disadvantage, Cummins (1981) introduced bilingual educational model. Cummin sees all languages having a "common proficiency underlying skills". So, once the skills of the first language have been acquired, there should not be any problem in acquiring a second language. In fact, Garcia (2004) stresses the importance of the first language or better known as "native language" acquisition. In the case of the hearing loss children, sign language is considered to be their "native language". The "native language" acquisition contributes to the learning of a second language. Through "Linguistic Interdependence Model", a term coined by Cummins, hearing loss children could acquire a second language – providing that the

instruction given is bilingual and has a determined content area (Garcia, 2004).

Rathmann, Wolfgang and Morgan (2007) argues that there are some indications in which children with hearing loss are not able to understand how their native language overlap metalinguistically with the second language. So, this goes back to the question whether the hearing loss children could actually acquire a second language especially as Convertino, Borgan and Marschark and Durkin (2014) highlight that the vocabulary knowledge of the hearing loss children is lower than the normal hearing children of the same age.

A few attempts made by researchers to enhance the vocabulary knowledge of the hearing loss children. Lund and Douglas (2016) listed three vocabulary teaching strategies which are as follows:

- Explicit, direct instruction
- Follow-in labelling
- Incidental exposure

The type of strategy chosen for an effective learning depends entirely on the learners. Specific characteristic of the learners require certain vocabulary teaching strategy (Lund and Douglas) as supported by Beck and McKeown (2007) who point out that “explicit, direct instruction” is a beneficial method for children without hearing loss whereas Walton and Ingersoll (2013) state that follow-in learning is more suitable for children with autism spectrum disorder.

As for incidental learning is said not to be the best vocabulary teaching strategy, according to Lund and Douglas, but “one of the most efficient” as it “does not take much concerted effort” to teach new words explicitly.

Still, many research carried out on the hearing loss children’s vocabulary acquisition focus on hearing loss children that have some hearing ability. Boon et al (2013) point out that children with hearing loss who did cochlear implants at an early age will “develop vocabulary scores within the range of normal on norm-referenced tests” as shown in a research done Storkel (2001) in which learning of word is being influenced by the “acoustic-phonetic content of the word” more and not “the grammatical function of the word.

This research, however, is looking into the acquisition of vocabulary for a third language. The respondents’ second language is Bahasa Malaysia which means that English language is the third language. Besides that, majority of the respondents have zero hearing.

RESEARCH QUESTIONS

The research questions were as follows:

- a. Would the number of the target words use increase among the respondents?
- b. Would the respondents be able to use the target words appropriately?

RESEARCH METHOD.

A total of 15 hours were spent on the research. It was carried out in three stages: introduction stage, practice stage and construction stage. Both the introduction and practice stages are the preparatory stage where the respondents were made to familiarize with a few target words that were directly related to shape-building-using-Lego-bricks activity. The final stage, the construction stage, was more of production stage. The stages are shown below in figure one:

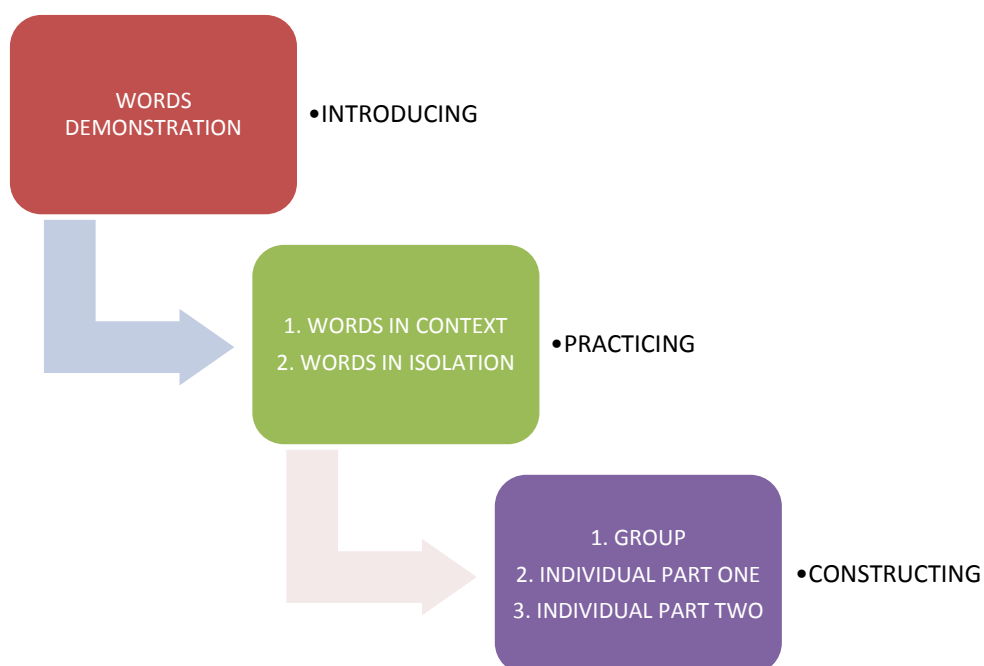


Figure 1 Research Framework

During the introduction stage, the target words for building shapes using Lego bricks were introduced. This stage was to ensure respondents' understanding of the target words' meaning and use.

Two hours were spent on the introduction stage. It was filled with the lecturer in-charge demonstration of the target words. For each word, the lecturer used the Lego bricks to explain. It was more of a one-man show where the respondents merely watched while the lecturer demonstrated.

The next stage was Practicing Stage. In total, 10 hours were spent for this stage. The strategy employed during this stage was "follow-in labelling". However, it was done in two different methods. The first method, the words were practiced in context. For this method where 6 hours were spent, eight (8) different Lego-building-instruction texts were given to the respondents. One hour was allocated for each text. For each hour, respondents were asked to build up the shape based on the text given. Each time, the respondents were given about 30 minutes to produce a Lego-shape build up. Then, there was a feedback where the lecturer would go to one respondent at a time – inspecting each respondent's Lego-building-brick construction and pointing out the steps that were wrongly carried out. The one hour session ended with the lecturer in-charge demonstrating the Lego-building-brick construction, step-by-step with the text being displayed on the screen while the lecturer carried out the building up at the side. For each step, the lecturer would point out the target words and demonstrated.

The second method was practising words in isolation. Four hours were spent on the second method. Words-in-isolation was in a form of a game which had the same concept as the hangman game. The game began with the respondents being divided into two groups. Then, the lecturer in-charge would write empty lines on the whiteboard. The number of the empty lines depending on the number of letters that the lecturer's intended word had. After that, the

lecturer would demonstrate the word. Based on the demonstration, the groups guessed the word.

Guessing the word itself would not be easy. So, the group could guess the letters instead so as to start their brains churning. However, for every wrong letter guessed, part of the hangman would be drawn. The total number of the hangman's parts was ten. So, at the end of each round, the number of the missing parts would be the groups' marks.

The last stage was the construction stage. The respondents were asked to build up shapes using only five Lego bricks. The colour of the bricks was left for the respondents to decide. Then, they were required to prepare Lego-building-instruction Written Texts. The template for the text was given by the lecturer in-charge.

The construction stage was carried out in two different ways. The first one was done in groups. There were a total of three groups. One group had three members while the other two groups had two members each. The second one was individual. The individual construction was done twice whereas the group was only once.

SAMPLING

Seven students with hearing loss were selected for the research. The students were in semester three and undergoing Certificate in Graphic Design Skill programme. Among the seven respondents, six were female while one was a male. Two of the female respondents had a slight hearing ability. The rest of the respondents were not able to hear at all. All of the respondents took SPM when they were in form five.

INSTRUMENTS

The research was focusing on five different parts of speech. The five parts of speech were verb, noun, preposition, adverb and adjective. For each part of speech, there were a few target words which were directly related to shape-building-using-Lego-bricks activity. The target words for each part of speech are shown below in table one:


Table 1: Parts of Speech and the selected Words

CATEGORY	WORD			
Verb	Cover Meet Take	Face/facing Place	Hold Press	Join/joining Put
Noun	Brick	Stud		
Preposition	Behind Side	In Front Top	Middle	Next to
Adverb	First	Second	Third	
Adjective	Blue Shorter	Green Yellow	Longer	Red

For the purpose of this research, the respondents were instructed to build a shape using 5 Lego bricks which might be in different colours. Once the shape had been built, the respondents were to write down the instruction, the step-by-step, in which would enable anyone to produce the same Lego shape. From the Lego-building-instruction written texts, produced by the respondents, the researchers

analysed the target words used by counting them as well as looking into the aspect of the target words correct usage.

Respondents were also supplied with a standard template for them to produce the Lego-building-instruction written texts. The template, in general, was divided into two parts.



SUE3011: ENGLISH FOR COMMUNICATION 2
TEST: INSTRUCTION (20%)

NAME :

REG. NO :

In a group of two or three, build a shape using 5 bricks.
Then, fill the THINGS NEEDED and THE INSTRUCTION so that another group could build up the same shape.

Things Needed

The Instruction

1.

Figure 2: Printed page for Construction Stage

Under the sub-header ‘Things Needed’, respondents needed to list down the number and colour of Lego bricks used. Then, under the second sub-header, ‘The Instruction’, respondents wrote down the steps.

DATA ANALYSIS

At the end of the construction stage, the respondents produced three Lego-building-instruction written texts. One written text was produced in a group

whereas the other two written texts were done individually.

Increment in the Number of Words Use: Each written text was analysed for the target words. Words which were wrongly used were also taken into consideration for the analysis. The table below shows the number of target words used by each respondent:

Table 2: Number of Selected Words Used

Respondent	Group written text	Individual written text one	Individual written text two
Respondent one		47	63
Respondent two	49	58	59
Respondent three		40	45
Respondent six	42	50	51
Respondent seven		47	45
Respondent four	14	48	0
Respondent five		18	29

One group appeared to be using the most target words in their Lego-building-instruction written text. The first group, with respondents one, two and three as members, used 49 of the target words. The second group, with respondents six and seven, had seven less words compared to the first group whereas the last group, with respondents four and five as members, used the least number of target words which was only 14. The difference in the number of target words used between second and the last group was 28.

As for the Individual Lego-building-instruction Written Text One, the highest number of target words use was still from one of the members of the first group: respondent two used 58 words. The second highest number of target words use was done by a member from second group with 50 words (respondent six) and the least number of words use was done by respondent five, with only 18 words, who was a member of the last group. So, it shows here that the members did influence one another when producing the Group Lego-building-instruction Written Text.

However, in the case of the last group, respondent five could have possessed a dominant characteristic during the discussion of the Group Lego-building-instruction Written Text. Referring to table 2, even though respondent four appeared to be using 48 words in the Individual Lego-building-instruction Written Text One, for the Group Lego-building-instruction Written Text, respondent four ability in using a lot of the target words did not seem to be helpful as the number of words used during the first production was only 14 which was 4 words less than the number of target words used by respondent five in the Individual Lego-building-instruction Written Text.

The analysis of the Individual Lego-building-instruction Written Text Two shows a slight different result. For the Individual Lego-building-instruction Written Text One, respondent two used the highest number of target words but, for the Individual Lego-building-instruction Written Text Two, respondent one displayed the most use of target words with 63 words. There was an increase of 16 words in the use of target words for respondent one while the number of target words use by respondent two increased by one word only.

Most of the respondents showed a positive result as the number of target words use increased. The number of target words used by both respondents one and five increased more than ten words: 16 and 11 words respectively. As for the other three respondents (respondents two, three and six), they presented an increment between one and five: 1, 5 and 1.

Two out of seven respondents, on the other hand, exhibited a negative result: respondents four and seven. Respondent seven used 47 words during the Individual Lego-building-instruction Written

Text One while, during the Individual Lego-building-instruction Written Text Two, there were only 45 words being used which was 2 words less.

Nonetheless, the case was different for respondent four. Respondent four did not display a decrease in the number of selected words use. Instead, respondent four failed to turn up during the last writing session, the session where the Individual Lego-building-instruction Written Text Two was to be carried out. When asked, the Respondent Four claimed to have forgotten. Respondent four seemed to have the habit of being absent especially during morning session classes.

Using the Target Words Appropriately: Most of the respondents were able to produce quite comprehensible Lego-building-instruction Written Texts. Some texts could be easily understood while a few required the researchers to make intelligent deduction based on the Lego-shape build up produced.

There are six types of errors made by the respondents. The types of errors are as follows:

- a. Grammar or unclear message
- b. Incomplete sentence
- c. Inappropriate / Incomplete phrase
- d. Missing step
- e. Wrongly used word
- f. Spelling

However, in this paper, only 4 types of error will be discussed: types a, d, e and f. Types e and f (Wrongly Used Word and Spelling) are the least found errors in the respondents' written texts. Both errors can be found in group one Group Individual Lego-building-instruction Written Text:

“Note: The longer side, the greed brick to should meet to red brick.”

Based on the Lego-shape build up built by the group, it was obvious that they were referring to ‘shorter’ and not ‘longer. So, here, the Wrongly-used-word error was made. The other error was the word ‘greed’ in which it should be ‘green’ as the colour of brick used to “meet the red brick” was green.

Type e, Missing Step, was another uncommon error in the Lego-building-instruction Written Texts. Out of 16 Lego-building-instruction Written Texts produced, only 3 written texts exhibited such error. Below is taken from respondent three's Individual Lego-building-instruction Written Text One:

“4. Take the yellow brick and place it next of the green bricks

5. Finally, the second of yellow bricks and place it, press on top of the right yellow bricks”

There were two missing steps. Respondent three had forgotten to include ‘Note’ statements for both steps 4 and 5. ‘Note’ statement is considered

essential as it ensures the precise location of the Lego bricks.

After step “4”, respondent three should indicate the exact position of the yellow brick in which it could be as below:

Note: The yellow brick’s shorter side should be facing you.

As for step “5”, respondent three could have written as below:

Note: The longer side of both yellow bricks should meet.

By having the ‘Note’ statement, the Lego-building-instruction written text prepared by the respondent could easily be followed by others.

Among all the types of error, Grammar or Unclear Message is the most exhibited error. All of the Lego-building-instruction written texts display errors on Grammar or Unclear Message. This type of error could be put into three categories: minor, average and major. Minor, for the purpose of this research, refers to grammatical errors that do not distort the intended message of the respondents. As for average, it refers to errors that have caused the statements made to be imprecise while major errors refer to errors that totally distort the respondents’ intended messages.

Minor errors seem to appear at the beginning of nearly every Lego-building-instruction written text. Normally, the errors appear in steps one and two of the Lego-building-instruction written texts. Below is taken from respondent three’s Individual Lego-building-instruction Written Text Two:

“1. Take the green bricks and place it in the centre of the table.”

There is a possibility that the respondent did not know the difference between ‘brick’ and ‘bricks’. At the beginning of the written text, under the sub-heading “Things Needed”, the respondent indicated correctly that the bricks needed were “two green bricks, one red brick, one yellow brick, one blue brick” but, then, throughout the written text, the respondent used the word ‘bricks’ even though the respondent was referring to only one brick.

Average errors are seen from step two onwards in nearly all Lego-building-instruction written texts. Below is an extract taken from respondent six’s Individual Lego-building-instruction Written Text One:

“5. Lastly, the yellow brick also put on the middle of the green bricks.

(Note: Make sure the yellow brick must securely with the green bricks.”

Here, the verb which should appear after the word “Lastly” is missing. The missing verb is placed by the respondent five words away from its correct position which was after the word “also”. The respondent also made an error with the preposition. Based on the Lego-shape build up built by the respondent, the phrase “on the middle of” should be replaced with ‘on top of’ as the yellow brick was actually placed on top of the green brick. It would also be more precise if at the end of the statement, the respondent added ‘covering all the studs’.

Major errors seem to appear mostly on the Lego-building-instruction Written Texts prepared by respondent five. The errors appear in all three types of Lego-building-instruction Written Texts. Below is respondent five’s Individual Lego-building-instruction Written Text One:

THINGS NEEDED	
two yellow brick	
two red brick	
one green brick	
METHOD	
1.	take one green brick place on top of . (note. green brick in front of yellow brick)
2.	two yellow brick is meets and join is on top. (note yellow brick facing on top parrallet green.
3.	finaly two red brick is on stop stud next to is the part yellow brick (note hold red put let yellow brick..

Without the Lego-shape build up made by respondent five, none of what had been written could be understood. Respondent five clearly used the target words to complete the given task by the lecturer in-charge. Unfortunately, the Lego-building-instruction written Texts handed by respondent five proved that respondent five failed to possess word acquisition as expected by the researchers.

CONCLUSIONS

The data collected from the research has provided answers to the two research questions. In fact, there are three significant findings.

The first one is that hearing loss children could acquire vocabulary of a third language. However, some could acquire more than others. The second finding is that some hearing loss children require a more intensive “follow-in, labelling” teaching strategy to acquire vocabulary of a third language. The intensity of the strategy could depend

on the characteristic of the hearing loss children. The final finding is that vocabulary acquisition of the hearing loss children does not signify their full understanding on the use of the target words. Instead, the vocabulary acquisition could only be a meaningless acquisition.

The research has helped the researchers to understand the teaching strategies for hearing loss children better. Lessons of a third language prepared specially for hearing loss children should be planned carefully, bearing in mind that every child in one class of hearing loss children has a different characteristic. The children's learning impairment should also take into consideration which means that, at the beginning of the semester, the lecturer in-charge needs to get details of every hearing loss child such as the degree of their hearing and identified form of learning impairment. This way, the planning of the lessons hopefully will be more meaningful and effective.

For coming research, for a more valid findings, the pre and post test should be conducted. Besides that, the practicing stage should also include some demonstrations so as to instill understanding on the correct usage of the target words.

REFERENCE

- Barker, L. J., (2003). Computer-assisted vocabulary acquisition: The CSLU vocabulary tutor in oral-deaf education. *Journal of Deaf Studies and Deaf Education*, 8, 187 – 198
- Beck, I. L., & McKeown, M. G., (2007). Increasing young low-income children's oral vocabulary repertoires through rich and focused instruction. *Elementary School Journal*, 107, 251 – 271
- Bloom, P. (2000). First words. In *How children learn the meanings of words*. (pp. 1 -23) Cambridge, MA: The MIT Press
- Bobzien, J. L., Richels, C., Schwartz, K., Raver, S. A., Hester, P., & Morin, L., (2015) Using repeated reading and explicit instruction to teach vocabulary to preschoolers with hearing loss. *Infants and Young Children*, 3, 262 -280.
- Cheng, H., & Fumham, A., (2012) Childhood cognitive ability, education, and personality traits predict attainment in adult occupational prestige over 17 years. *Journal of Vocational Behaviour*, 81, 218 – 226
- Convertino, C., Borgna, G., Marschark, M., & Durkin, A. (2014). Word and world knowledge among deaf learners with and without cochlear implants. *Journal of Deaf Studies and Deaf Education*, 19, 471 – 483
- Cummins, J., (1981). Empirical and theoretical underpinnings of bilingual education. *Journal of Education*, 163(1), 16 – 29
- Garcia, F., (2004) *Developing Sociopolitical Literacy*. AERA (pp. 34 – 40). San Diego: Heldref.
- Gilbertson, M., & Kamhi, A. G. (1995). Novel word learning in children with hearing impairment. *Journal of Speech and Hearing Research*, 38, 630 – 642.
- Isakovic, L., & Kovacevic, T., (2015) Communication of the deaf and hard of hearing: The possibilities and limitations in educations. *TEME: Casopis za Društvene Nauke*. Vol 39 Issue 4, p.1495 – 1514.20p
- Kaiser, A., & Roberts, M. Y., (2013). Parent-implemented enhanced milieu teaching with preschool children who have intellectual disabilities. *Journal of Speech, Language and Hearing Research*, 56, 295 – 309
- Lund, E., (2015) Vocabulary knowledge of children with cochlear implants: A meta-analysis. *Journal of Deaf Studies and Deaf Education*. Advance online publication.
- Lund, E., & Douglas, W. D. (2016). Teaching vocabulary to preschool children with hearing loss. *Exceptional Children*. Vol 83(1), 26 – 41
- MacSweeney, M., Water, D., Brammer, M., Woll, B., & Goswami, U., (2007) Phonological processing in deaf signers and the impact of age of first language acquisition. *NeuroImage*, 40(3) 1369 - 1379
- McKeown, M., Beck, I., Omanson, R., & Pople, M. (1985). Some effects of the nature and frequency of vocabulary instruction on the knowledge and use of words. *Reading Research Quarterly*, 20.
- Mitchell, R. E., & Karchmer, M. A., (2004) Chasing the mythical ten percent: Parental hearing status of deaf and hard of hearing students in the United States. *Sign Language Studies*, 4(2), 138 – 163
- Rathmann, C., Wolfgang, M., & Morgan, G., (2007). Narrative structure and narrative development in deaf children. *Deafness and Education International*, 9(4) 187 – 196
- Storkel, H. L., (2001). Learning new words: Phonotactic probability in language development.

Journal of Speech, Language, and Hearing Research, 44, 1321 – 1323

Turnbull, R., & Turnbull, Ann & Shank, Marilyn & Smith, Sean & Seal, D., (2002) *Exceptional Lives*. Ohio: Merrill Prentice hall

Walton, K. M., & Ingersoll, B. R., (2013). Expressive and receptive fast-mapping in children with autism spectrum disorders and typical development: The influence of orienting cues. *Research in Autism Spectrum Disorders*, 7, 687 - 698