Research Paper Lingustics

The Effectiveness of Mind Mapping in Improving The Mastery of Malay Language of Dyslexic Children

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ABSTRACT

This study aims to assess the extent to which the mind mapping can improve the language mastery of dyslexic children. The main objective of this study was to clarify the effectiveness of using mind mapping in improving the Malay language mastery of dyslexic children. The theory used in this study is Dyslexia Syndrome Theory founded by Levinson (1994). The study samples consisted of 10 dyslexic children who are undergoing training at the Dyslexia Special Learning Center of Ampang, Kuala Lumpur. This study uses the methods of literature and field survey methods. The tools used in this study consists of essay writing test paper (EWT). Data obtained from this study were analyzed quantitatively using SPSS program. This research will benefit teachers atthe Dyslexia Learning Center to serve the mind mapping as a method to improve the language mastery of dyslexicchildren. This study shows that mind mapping is effective in increasing the Malay Language mastery of dyslexic children, especially in terms of vocabulary and sentence.

KEYWORDS dyslexic children, Malay Language, increase,mastery

INTRODUCTION

According to Lovitt (1989: 151), one of the causes of language proficiency problems of dyslexic children is a result of lack of memory. The results indicate that dyslexic children often show a lack of memory auditory. Deficiencies in memory auditory will cause difficulties in language proficiency. Furthermore, dyslexic children are often show the existence of specific deficiencies in the repeat of sequence phonemes, recall words, remembering the symbol, and to understand the causal relationship. Thus, the problem of lack memory should be solved by using an appropriate tool with dyslexic children. In this study, the instrument that areused was a mind map. This is because, according to Tony Buzan (2013), the individual who had learning difficulties such as dyslexia and autism are more easily absorbed the tasks after being exposed to the techniques of mind mapping, especially in the opening function of both sides of their brains.

However, the problem that exists is, in Malaysia, the concept of mind mapping is still poorly applied in helping children or individuals with dyslexia, the abroad study like Giovanna Lammi(2008) shows that the concept of mind mapping was used a long time ago to help individuals who suffer from dyslexia. Based on the Giovanna Lammi study, found that mind maps can also be a very effective tool to improve vocabulary knowledge of children with dyslexia. Elaine Colliar, 32, was part of Dyslexic who have overcome dyslexia suffered by himself using mind mapping (Georgina Kenyon, 2002). Thus, the lack of research related to the application of the concept of mind mapping to help increase the Malay language proficiency of dyslexic children give an opportunity for researchers to describe the effectiveness of the concept of mind mapping in improve the Malay language mastery of dyslexic children in Malaysia.

Mind map is the most powerful tool that can help the brain to think properly (Tony Buzan, 2006: 4). The concept of mind mapping was invented by Tony Buzan in the 1970s as a way to take notes. However, mind mapping can also be very useful for children with learning disabilities such as dyslexia children. This is because children who have dyslexia is a multidimensional visual thinker because they think in the form of a picture or image (Davis, 2010).

Mind mapping is a visual thinking techniques (MunirShuib et al., 2001: 56). Mind mapping allows children to develop and to relate one idea to another idea visually. Thus, through a sketch map of the mind that has been made, the child is able to see clearly the movement and development of their thinking process visually. According MunirShuib et al. (2001: 57), with sketch ideas are being considered, someone is able to generate more productive ideas. Furthermore, drawing mind maps can also reduce the burden on the brain. This is because the ideas can be removed from the mind thinks quickly, and it also allows other ideas generated more easily.

Therefore, this condition is very important for dyslexic children because, according to Sheila Devaraj and SamsilahRoslan (2006: 35), a major cause of dyslexia is happening is due to the connection between the two sides of the brain called the corpus callosum being a nerve signal travel congested traffic when nerve impulses dyslexic children commute between the left brain hemisphere and right brain hemispheres. This situation occurs when there are things causing confusion in the dyslexic children.

This sort of thing has actually burdened brain of dyslexic children and cause effects such as 'mirror image' of the letters are resulting too long in the brain. However, by using mind mapping, the idea is in the mind of a child with dyslexia can be issued immediately in addition to avoiding other ideas in the minds of these children lost because children with dyslexia usually has a short-term memory and has trouble to finding the words.

DATAANALYSIS

In this study, researcherusedthe quantitativeresearchapproach. Quantitativeresearchcan be donethrough the study ofdescriptive orinferentialstudies(Chua YanPiaw, 2012: 109). However, in this studythe researcheronly useinferentialstudy. Inferential study usedtoanalyze thedata of this because theresearcher usedt-testsrepeatedmeasurements(Paired-Samples T-test). This is consistentwith the statement of ChuaYanPiaw(2012: 109), which isthe study ofinference, numericaldatacollectedfromthe sample need to betested usingstatistical tests.

In this study, the appropriate statisticaltests that can be usedtodescribe theeffectiveness of usingmind mappingin the language mastery of the dyslexic student areRepeated Measur-

est-test. This is because, according to ChuaYanPiaw(2012: 176-177), Repeated Measurest-testis usedwheneachindividualin the sampleis measured twiceand bothmeasurement dataused tomake thecomparison. This means thatan individualacquirestwoscoresfortwodifferent levels in theindependent variable. Therefore,in order to seethe effectiveness ofusing mind mapping, the researcheralso conducted apre-post test-to the subjects, that was the Essay Writing Test (EWT) before usingmind mapping(Pre Test) andEWTafter usingmind mapping(Post Test).

According toChuaYanPiaw, Repeated Measurest-testwas also usedtodetermine whetherthere is a differencebetweenmeans oftwo sets data that were obtained from thepre-testandpost-test. In analyzing thedatafor theobjectivesof this study, the researcher also describewhether there isa differencebetweenmeansinthedataset. Quantitativedataanalysiswas conductedusing the Statistical Package fortheSocialSciences (SPSS) program version22.

FINDINGS

Nullhypothesis:Mind mappingis ineffective in improvingthe Malaylanguage masteryof dyslexic children.

Study hypothesis:Mind Mappingis effective in increasingthe Malay languagemastery of dyslexic children.

Toclarifythe effectiveness ofmind mappingin improvethe Malaylanguage masteryof dyslexic children, the researcher conductedfour timespre-post test, that is the testbeforeusingmind mappingand the testafterusing mind mapping. The testbefore usingmind mappingisan essay writingtestwiththe aid ofstimulation picture, while thetestafterusingmind mappingisanessay writingtestwiththe aid ofmind mapping. Sampleswere asked toproduceideasin the form ofmind mapsin advance beforedevelop the essay. To identifywhether there isa significant differencebeforeandafterusing themind mapping, the test resultswere analyzedusingt-testRepeated Measures(Paired Samples Statistics).

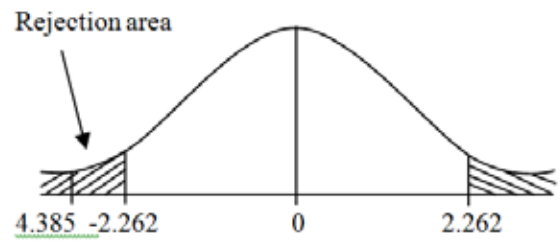
Table 1: Paired SamplesStatistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Before MM	3.8000	10	1.87380	.59255
	After MM	5.7000	10	2.11082	.66750

Tabel 2: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Before MM - After MM	-1.90000	1.37032	.43333	-2.88027	-.91973	-4.385	9	.002

Figure 1: Value of t-statistics



Based on the data shown in Table 2 and Figure 1, the researcher found that the value of t-statistics is greater (-4385) compared with the value of t-critical (2262). Therefore, the null hypothesis is rejected. The results for the first post test was significant (t = -4385, df = 9, p <.05). Researcher determined that there are difference in performance in writing tests for dyslexic children before and after using mind mapping. The higher mean value (5.7000) after using mind mapping as shown in Table 1 shows that the used of mind mapping is effective in improving the Malay language mastery of dyslexic children.

Based on the EWT that was conducted, the t-test results showed significant results. The mean value for the post-test conducted on the subject of the study also showed an increasing. This shows the effectiveness of mind mapping to help enhance the Malay language proficiency of dyslexic children, that were in terms of vocabulary and sentence writing. Based on the answer scripts of the tests, the researcher found that after using the mind mapping, the number of vocabulary used by the subjects of this study are increasing compared before usingthe mind mapping.

The increasing number of vocabulary has helped them to build better sentences. Based on the observations during this study, researcher found that by using mind mapping the subjects of this study are easier to produce ideas. Researcher also noticed that the infusion of animation and graphics in mind mapping is more to encourage the study subjects and encouraging their minds to produce ideas, namely in the form of vocabulary.

CONCLUSION

In conclusion, the researchers found that mind mapping can helped in improving the Malay language mastery of dyslexic children to the research aspect, that is the vocabulary and sentence in the essay. This is because, although the results have not reached a level of excellence, researcher found the significant increasing is on the content ofessay writing. After using mind mapping, study subjects were more motivated and determined to produce vocabulary to expand the content of the essay. Thus, the amount of their vocabulary are increase and sentence construction process in the essay also become easier.

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