
ORIGINAL ARTICLE

Effectiveness of Story Mapping Technique on Reading Comprehension of School Going Children in Selected Schools at Puducherry

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ABSTRACT

School age child development is a range from 6 to 12 years of age. This period begins with entrance into school environment. Reading strategy is a simple and effective approach formulated to enhance the comprehensive abilities of students. A Story map is a Graphic representation of all or part of the elements of a story and the relationship between ideas. The aim of the study is to improve reading comprehension of schoolchildren by Story Mapping Techniques. True experimental study was conducted for the school children aged 10-12yrs. 70 children (35 in experimental and 35 in control group) were selected by using simple random sampling technique. Story Mapping Technique given to Group I (Experimental Group) daily while studying for 60 days and regular teaching schedule had given to Group -II (Control Group). Reading comprehension was assessed with the help of Structured Comprehension Test. Data were analyzed using SPSS software version 13. During pre-test only 13 children scored well in comprehension test after intervention all 35 children in experimental group scored well. The difference was found highly statistically at $p < 0.001$. Hence the Stated Hypothesis H₁ was accepted. Results indicated that using a follow-up Story Mapping Technique had a positive effect on reading comprehension of school children. It is recommended that further studies can be done by comparison with other stimulating technique for school children.

KEYWORDS: Academic performance, Reading Comprehension, School Children, Story Mapping Technique.

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INTRODUCTION

Childhood, period of the human lifespan between infancy and adolescence, extending from age 1 to 12. School age children are ranged from 6 to 12 years, this period they enter into school environment. The learning experience of school children help to shape their brain and intellectual ability [1].

According to UNICEF, most of the children around the world are failing to read – and it is expected to get worse due to the COVID-19 pandemic [2].

Reading strategy is a simple and effective approach formulated to enhance the comprehensive abilities of students. By using different technique, students are able to understand the material and direct their attention to the details. It thus enhances students learning and helps them prepare for an essay or report submission and even for an examination.³

Story Mapping is a strategy that uses a graphic organizer to help students learn the elements of books or story. Story mapping provide a visual spatial display for key information in narrative text. This technique of instruction uses a diagram [called a Story Mapping] to depict visually the setting or the sequence of events and actions of story characters. The purpose of a story mapping is to help students focus on the important elements of character, initiating events, settings, problems, and solution.⁴

MATERIAL AND METHODS

Quantitative research approach used to evaluate the effectiveness of story mapping technique on reading comprehension of school going children in selected private schools. In this study True Experimental design was used. Sampling was done by simple random sampling technique. The duration of sampling was 6 weeks. Inclusion criteria were School Children aged 10-12 years, Children who are having score C, D, & E Grade in first mid-term exam. Children scored A & B Grade, Children who are not willing to participate were excluded in the study.

Data collection tools in this research were demographic variables, academic performance of the children, Structured Comprehension test scale. Demographic variables consisted of Age, Gender, Education of father, Education of mother Occupation of father, Occupation of mother, Residence, Religion, Performance at school, Monthly income, Type of family, attending any other classes, Hobbies during leisure time, socio economic status, and duration of study time in a day. For the validity of the demographic variables, the content validity method was used and questionnaire was reviewed by 3 professors from different universities and their options were taken into consideration and it was finally validated and the Split Half method was used to confirm the reliability of the tool correlation test was used ($r=0.797$). First, the researcher obtained the permission from Institutional Human Ethical Clearance. For randomization, sampling frame was obtained, Odd number assigned to control group and even number was assigned to experimental group. Experimental group- The study was conducted in National English High School, Thavalakuppam at Puducherry. Thavalakuppam is a rural area of Puducherry. Control group- The study was conducted in St Joseph English High School, Thavalakuppam at Puducherry. Thavalakuppam is a rural area of Puducherry,

The informed consent from the samples and caregivers were obtained. Experimental Group- Pre-Test: Assessing reading comprehension by structured comprehension test, Story Mapping Technique (Daily while study) for 6 week, Post- Test: After 60 days assessing reading comprehension by same structured comprehension test. Control Group- Pre-Test: Assessing reading comprehension by structured comprehension test, Regular Teaching Schedule. Post- Test: After 6 week assessing reading comprehension by same structured comprehension test.

The data were analyzed using statistical software SPSS version 13 using descriptive and inferential statistics. Descriptive statistics (frequency, percentage, mean, standard deviation) were used to describe the demographic variables of study participants. Inferential statistics (Paired „t“ test, Kruskal Wallis and Mann Whitney Value Test) were used to find out the association between the reading comprehension and demographic variables.

RESULTS

Table 1 shows the demographic variables of control and intervention group obtained from the study.

S.No	Demographic variables		Group		Total	
			Experimental Group [n=35]	Control Group [n=35]	N	%
			n	n		
1.	Age	10yrs.	1	0	1	1.4
		11yrs.	30	31	61	87.1
		12yrs.	4	4	8	11.4
2.	Gender	Male	16	16	32	45.7
		Female	19	19	38	54.3
3.	Education of fathers	Non formal	21	16	37	52.9
		Higher secondary education	9	11	20	28.6
		UG	4	7	11	15.7
		PG	1	1	2	2.9
4.	Education of mother	Non formal	23	16	39	55.7
		Higher secondary education	8	15	23	32.9
		UG	4	3	7	10.0
		PG	0	1	1	1.4
5.	Occupation of father	Govt sector	7	6	13	18.6
		Self-employee	7	6	13	18.6
		Pvt sector	10	15	25	35.7
		Daily wages	10	8	18	25.7
		Un-employee	1	0	1	1.4

6.	Occupation of mother	Govtsector	6	3	9	12.9
		Self-employee	3	3	6	8.6
		Pvtsector	1	3	4	5.7
		Daily wages	8	7	15	21.4
		Housewife	17	19	36	51.4
7.	Types of family	Nuclear family	20	18	38	54.3
		Joint family	15	17	32	45.7
8.	Monthly income	BelowRs5000	13	7	20	28.6
		Rs5001-Rs10000	19	21	40	57.1
		Rs10001-15000	1	4	5	7.1
		AboveRs 15001	2	3	5	7.1
9.	Religion	Hindu	27	33	60	85.7
		Muslim	5	2	7	10.0
		Christian	3	0	3	4.3
10.	Performance of school	C-Grade	28	28	56	80.0
		D-Grade	7	7	14	20.0
11.	Attending special class	Yes	9	17	26	37.1
		No	26	18	44	62.9
12.	Hobbies	Painting	11	11	22	31.4
		Listening music	12	8	20	28.6
		WatchingT.V	12	16	28	40.0
13.	Duration of studying time	1hrs	0	9	9	12.9
		2hrs	28	26	54	77.1
		3hrs	7	0	7	10.0

Table 2. Effectiveness of Story Mapping Technique among School Children in Experimental Group

S.No	Group	Test	Mean	Standard Deviation	Median	Mean Rank	Wilcoxon Signed Ranks Test	P-Value
1.	Experimental group	Pre-test	4.17	2.36	4	0	5.18	<0.001*
		Posttest	9.31	0.47	9	18		

Table3. Effectiveness of Story Mapping Technique among School Children in Control Group

S.No	Group	Test	Mean	Standard Deviation	Median	Mean Rank	Wilcoxon Signed Ranks Test	P-Value
1.	Control group	Pre-test	4.37	2.6	3	11.5	3.407	<0.001*
		Posttest	5.46	2.34	6	9.92		

Table 2 & 3 shows that, the mean and standard deviation of reading comprehension between the control and experimental group. The mean was of 9.31 with standard deviation of 0.47 in the experimental group and in the control group was 5.46 with standard deviation of 2.34 in the post after Story Mapping Technique. The difference was found highly statistically significant at $p < 0.001$ level in both experimental and control group. Both experimental group and control group are highly statically significant, so the reading comprehension of students was improved.

DISCUSSION

The following results were obtained from the study. Regarding distribution of demographic variables of School going children. With regard to age, the highest number of samples 30 [85.7%] and 31 [88.6%] belonged to the age group of 11 years in experimental group and control group. Regarding Gender, majority of children were female 19 [54.3%] in both experimental and control group. Regarding Father Education status, majority of Children Father 21 [60.0%] and 16 [45.7%] belongs to Non- formal education, in experimental group and control group belongs to non -formal education. Regarding Mother education status, majority of children Mother 23 [65.7%] and 16 [45.7%] belongs to Non- formal education in experimental group and control group. Considering Father Occupation, in experimental group and control group 10 [28.6%] was working in Private sector. Considering Mother occupation, the highest number of children mother, 17 [48.6%] & 19 [54.3%] in experimental group and control group belongs to house wife. Regarding type of family, majority of children's 20 [57.1%] in experimental group and 18 [51.4%] in control group belongs to nuclear family. Regarding monthly income of the family 19

[54.3%] in experimental group and 21 [60.0%] in control group belongs to between Rs. 5001-Rs. 10,000. Considering religion, majority of children's 27 [77.1%] in experimental group and 33 [94.3%] in control group belong to Hindu. Regarding grading in first mid-term exam 28 [80.0%] in experimental group and 28 [80.0%] in control group belongs to C-grade. Regarding attending any other special class 26 [74.3%] in experimental group, 18 [51.4%] in control group were not attending any special class. Regarding hobbies during leisure time 12[34.3%] in experimental group and 16 [45.7%] in control group belongs to habit of watching T.V. Regarding duration of study time in a day 28 [80.0%] in experimental group and 26 [74.3%] in control group belongs to studied for 2 hours.

The study revealed that in post-test among experimental group. All 35[100.0%] students belongs to 7-10 score [Good] of reading comprehension test, in control group out of 35 samples, 14 [40.0%] students belongs to less than <5score [Poor] of reading comprehension test, 14 [40.0%] students belong to 5-7 score [Average] of reading comprehension test, 7 [20.0%] students belongs to 7-10 score [Good] of reading comprehension test. Post-test was increased to mean of 9.31 with standard deviation 0.47. The difference was found highly statistically at $p < 0.001$ level and can be attributed to the effectiveness of Story Mapping Technique on school going children. This result shows that the story mapping technique is highly effective on reading comprehension of school children. Since there is an improvement in the reading comprehension of school going children in the experimental group above the stated hypothesis H1 was accepted.

The study revealed that association between age, sex, education status of father, education of status of mother, occupation of father, occupation of mother, type of family, monthly income, religion, performance of school, attending special class, hobbies, duration of studying time among school going children the obtained paired „t“ test Kruskal Wallis / Mann Whitney test value was not significant at p value < 0.05 . There is no significant difference between the associations of reading comprehension of school going children with demographic variables in experimental and control group. Hence the stated hypothesis H2 was rejected.

One of the limitations of current study is, since it is a learning technique to the school children, the researcher found difficult in making them to understand, to perform and to co-operate till the end of sections.

CONCLUSION

The main aim of the study was to evaluate the effectiveness of story mapping technique on reading comprehension of school children in selected school at Puducherry. This study results reveals that story mapping technique improved the reading comprehension and helpful in academic performance of the school children.

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Nil

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