

A STUDY TO ASSESS THE EFFECTIVENESS OF STORY MAP TECHNIQUE ON THE LEVEL OF COMPREHENSION SKILLS AMONGST SCHOOL CHILDREN IN SELECTED SCHOOLS AT THIRUVALLUR DISTRICT

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Abstract

The extent to which the story map technique has achieved the desired effects in improving the comprehensive skills among school children. This technique uses visual representation to help students in organizing the important elements of a story. Students learn to summarize the main ideas, characters, setting, and plot of an assigned reading by using the story map. Comprehensive skill is the ability of children to create meaning which involves a number of activities to understand the full meaning of story. Prior to data collection permission was obtained from the village authority and medical officer to conduct the study. Total sample size was 60 in which 30 were control group and 30 were experimental group. Per day 4 samples were collected in which 2 were control group and 2 were experimental group. First 15 days pretest was conducted and next 15 days post test was conducted. The study participants were taught story map technique. The steps included in this strategy are, a hand out of the story was distributed to the participants and were asked to read the story along with the investigator for 15 minutes. The story map will be given to the participants which contains setting, characters, conflict, the plot, solution and summarizing. With the help of the investigator the participants would complete the story map. On completing the story map the investigator regrouped the participants and corrected the story map and discussed.

INTRODUCTION

Conducted a study on teaching and learning narrative text writing through story mapping. Research focused on teaching and learning narrative text writing through story mapping. The objectives of this research were to know and describe the process of teaching and learning narrative writing using story mapping and the teacher and students problems in teaching and learning narrative writing through story mapping (1,2,3). The participants were 60 (33 male and 27 female) students from the 4th year of the Department of English, College of Arts, University of Anbar, Iraq, who were divided into a control group and an experimental group. The experiment was conducted during the second semester of the academic year 2020–2021. A pretest, a posttest, a pre attitudinal questionnaire, and a post attitudinal questionnaire were used to collect the data. The results revealed that the mean scores of the students in the experimental group were higher than that of the students in the control group (3,4). In addition, the results also revealed immediate improvements from the baseline to intervention phase; and maintenance probes suggested that the effects of the intervention were

sustained even after two weeks with no story-mapping instruction^(5,6). The study was conducted in Germany. Three 5th grade students from a regular education public school and three 8th grade students from a school for children with learning difficulties served as subjects. An AB multiple baseline design across subjects was applied. The intervention points were randomly determined within a preset range for each participant. Results suggested that the story mapping technique was very beneficial in improving reading comprehension of struggling learners⁽⁷⁾. **2021** conducted a correlational and cross-sectional design study on Examining the 21st century skill set perceptions of academy and comprehensive school student. The sample size is 669 students traditional comprehensive school students (n = 614) on the perceptions of their 21 st century skillsets. Academy students, when compared with their traditional comprehensive school peers, reported that their schools significantly contributed more to their abilities to apply knowledge from their courses to a real-world context^(8,9). Narrative Comprehensive refers to one's ability to derive an overall interpretation of the state of affairs described in a story while going beyond the meaning of specific words or sentences. It has also been described as "the identification of the meaning of the text as a connected whole rather than as a series of individual words and sentences"^(10,11).

MATERIALS AND METHODS

The study will be quantitative approach with quasi experimental research design was adapted for this study. purposive sampling technique was used. Prior to data collection permission was obtained from the village authority and medical officer to conduct the study. Total sample size was 60 in which 30 were control group and 30 were experimental group. Per day 4 samples were collected in which 2 were control group and 2 were experimental group. the study comprised of all students between the age group of 5 to 10 years in selected school at Chennai. First 15 days pretest was conducted and next 15 days post test was conducted. The study participants were taught story map technique. The steps included in this strategy are, a hand out of the story was distributed to the participants and were asked to read the story along with the investigator for 15 minutes. The story map will be given to the participants which contains setting, characters, conflict, the plot, solution and summarizing. With the help of the investigator the participants would complete the story map. On completing the story map the investigator regrouped the participants and corrected the story map and discussed.

A. Description of Socio-Demographic Data

This section consists of 08 items Age in year, Religion, gender, Parent's education, Types of family, Occupation of the parents, Income and Education of the children

Section B: Modified Rubric Comprehensive Skills Scale to Assess the Comprehensive Skills.

- Story map technique consists of six elements
 1. Setting
 2. Characters
 3. Conflict (problem)
 4. The Plot (events)
 5. Solution
 6. Summarizing

Through these elements the questionnaires can prepared.

- All elements consist of ten question, each question has a one marks. So total mark is 10.

Scoring Key

Comprehensive skills	score
inadequate Comprehensive skills	(1-3)
moderate Comprehensive skills	(4-6)
Adequate comprehensive skills	(7-10)

RESULTS AND DISCUSSION

Section A: Description of Selected Demographic Variables of Sample in Experimental and Control Group

Table 1 : Frequency And Percentage Distribution of Demographic Variables of Sample In Experimental And Control Group N=30

DEMOGRAPHIC VARIABLES	EXPERIMENTAL GROUP n=30		CONTROL GROUP n=30	
	f	%	F	%
Age in years				
5-7 yrs	18	60%	15	50%
8-10 yrs	12	40%	15	50%
Gender				
Male	14	46.6%	24	80%
Female	16	53.3%	6	20%
Religion				
Hindu	16	53.3%	8	26.6%
Muslim	7	23.3%	6	20%
Christian	5	16.6%	12	40%
Others	2	6.6%	4	13.3%
Parents Education				
Upto 10 thstd	2	6.6%	3	10%
10-12 thstd	8	26.6%	2	6.6%
Undergraduate	15	50%	6	20%
Post graduate	5	16.6%	19	63.3%
Type of Family				
Nuclear Family	26	86.6%	13	43.3%
Joint Family	3	10%	6	20%
Single Parent	1	3.3%	11	36.6%
Occupation of Parents				
Private Sector	17	56.6%	23	76.6%
Government Sector	9	30%	5	16.6%
Own Business	4	13.3%	2	6.6%
Income				
Less than 5000	2	6.6%	4	13.3%
5001-10000	7	23.3%	8	26.6%
10001-20000	8	26.6%	9	30%
Above 20000	13	43.3%	9	30%
Education of children				
1 ST -2 ND STD	19	63.3%	23	76.6%
3 RD -4 TH STD	11	36.6%	7	23.3%

The table 1 shows that frequency and percentage distribution of demographic variable among the school children. It Shows that according to age in experimental group majority of 18(60%) children were in the age group of 5-7 years, 12(48%) children were in the age Group of 8-10 years. In the control group majority of 15(50%) children were in the age group of 5-7years, 15(50%) children were in the age group 8-10 years. According to gender, in experimental group majority of 16(53.3%) children were female and 14(46.6%) children were male and in control group majority of 24(80%) children were male and 6(20%) children were female. Regarding religion of children 's in experimental group majority of 16(53.3%) of them were belongs to Hindu, 5(16.6%) of them were belongs to Christian, 7(23.3%) of them were belongsto Muslim and 2 (6.6%) belongs to other religion category. In control group majority 8(26.6%) of them were belongs to Hindu, 12(40%) of them were belongs to Christian, 6(20%) of them were belongs to Muslim and 4(13.3%) come under other religion category. Regarding educational status of the parent's in experimental group majority of 2(6.6%) them were up to 10th Std, 8(26.6%) of them were studied 10-12th Std, 15(50%) of them were studied under graduation and 5(16.66%) of them were Post graduation. In control group majority of 3(10%) of them were up to 10th Std, 2(6.6%) of them were studied 10-12th Std, 6(20%) of them had studied under graduation and 19(63.3%) of them were Post graduation.

Regarding types of family of children in experimental group majority of 26(86.6%) of them were living with nuclear family, 3(10%) of them were living with joint family, and 1(3.3%) of them were living with single parent. In control group majority of 13(43.3%) of them living with nuclear family, 6(20%) of them were living with joint family and 11(36.6%) of them were living with single parent. When considering the occupation of the parents in experimental group majority of 17(56.6%) of them were private sector, 9(30%) of them were in government sector, 4(13.3%) of them were employed in own business. In control group 23(76.6%) of them were private sector, 5(16.6%) of them were in government sector, 2(6.6%) of them were employed in own business. Regarding monthly income of experimental group majority of 2(6.6%) of them were having income below 5000 per month, 7(23.3%) of them were having income 5001-10000 per month and 8 (26.6%) of them were having income above 10001 to 20000 per month and 13(43.3%) of them were having income above 20000. In control group majority 4(13.3%) of them were having income below 5000 per month, 8(26.6%) of them were having income 5001 - 10000 per month and 9(32%) of them were having income above 10001 to 20000 per month and 9(32%) of them were having income above 20000. Regarding educational of children in experimental group majority of 19(63.3%) them were 1 – 2 std and 11(36.6%) were 3 – 4 Std. In control group majority of 23(76.6%) them were 1 –2 std and 7(23.3%) were 3 – 4 Std.

Section B: Pre-Test And Post-Test Score Level Of Comprehensive Skills among Control And Experimental Group

Table 2: Pre-test and Post-Test Score Level of Comprehensive Skills in Experimental Group (n=25)

LEVEL OF THE COMPREHENSIVE SKILLS	EXPERIMENTAL GROUP			
	PRE-TEST		POST TEST	
	Frequency	Percentage	Frequency	Percentage
Inadequate	19	63.3%	2	6.6%
Moderate	5	16.6%	7	23.3%
Adequate	6	20%	21	70%

Table 2 shows Comprehensive skills in Experimental group, in pre – test majority of the children’s 19(63.3%) of them had inadequate level of Comprehensive skills, 5(16.6%) of them had moderate level of Comprehensive skills and 6(20%) had adequate level of Comprehensive skills, whereas in post – test majority of the school children’s 7(23.3%) of them had moderate level of Comprehensive skills, 2 (6.6%) of them had inadequate level of Comprehensive skills, and 21(70%) had adequate level of Comprehensive skills

Level of Comprehensive Skills Among Experimental Group

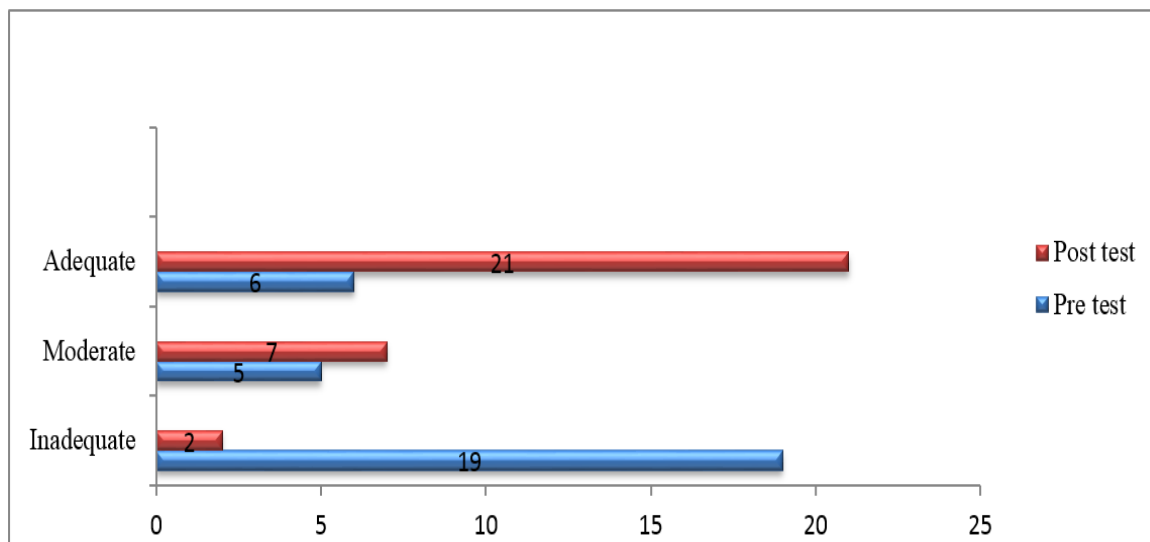


Figure 1: Percentage Distribution of level of Comprehensive Skills Among Experimental Group

Section C: Pre-Test And Post-Test Score Level Of Comprehensive Skills Among Control And Experimental Group

Table 3: Pre-test and Post-Test Score Level of Comprehensive Skills in Control Group (n=30)

LEVEL OF THE COMPREHENSIVE SKILLS	CONTROL GROUP			
	PRE-TEST		POST TEST	
	Frequency	Percentage	Frequency	Percentage
Inadequate	18	60%	1	3.3%
Moderate	9	30%	2	6.6%
Adequate	3	10%	27	90%

Table 3 shows Comprehensive skills in Control group, in pre – test majority of the children’s 18(60%) of them had inadequate level of Comprehensive skills, 9(30%) of them had moderate level of Comprehensive skills and 3(10%) had adequate level of Comprehensive skills, whereas in post – test majority of the school children’s 1(3.3%) of them had moderate level of Comprehensive skills, 2 (6.6%) of them had inadequate level of Comprehensive skills, and 27(90%) had adequate level of Comprehensive skills

Level of Comprehensive Skills Among Control Group

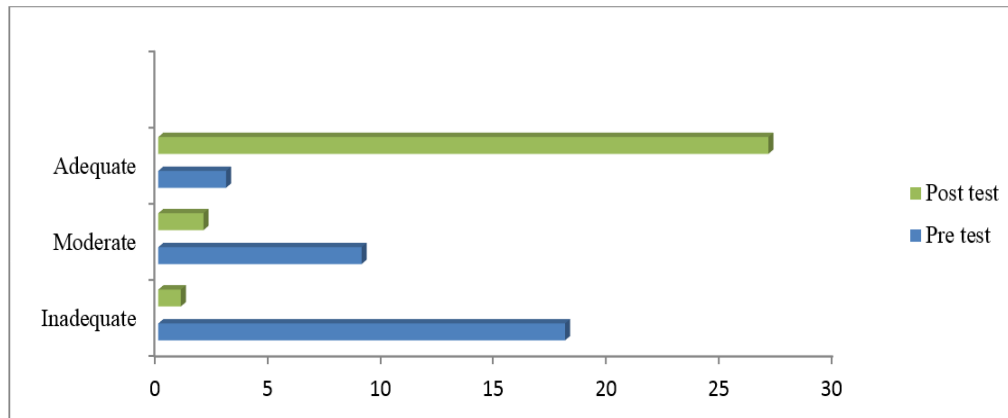


Figure 2: Percentage Distribution of Level of Comprehensive Skills Among Control Group

Section D: Comparison Of Pre-Test And Post-Test Score On The Level Of Comprehensive Skills In Control And Experimental Group

The effectiveness of the story map technique was tested by using paired ‘t’ test and unpaired ‘t’ test. Paired ‘t’ test and unpaired ‘t’ test was calculated to analyze the difference in pre and post test scores on the level of Comprehensive skills in control and experimental group.

Table 4: Comparison of mean pre-test and mean post-test score on the level of Comprehensive skills in control group.

Experimental group (n=30)

Level of Comprehensive skills	Mean	SD	Mean Difference & %	Paired ‘t’ test & p-value
Pre test	3.8	2.87	3.72 (12.4%)	t= -5.6029. P<0.0001, S***
Post test	7.52	2.29		

***p<0.001, S – Significant

Table 4 explains the comparison of pretest and posttest values of Experimental group. The calculated t value 3.72(12.4%) is greater than the table value, there was a significant difference exists in the mean of pretest and posttest, in can be calculated there was an improvement in the comprehensive skills.

Table 5: Comparison of mean pre-test and mean post-test score on the level of Comprehensive skills in control group (n=30)

Level of Comprehensive skills	Mean	SD	Mean Difference & %	Paired ‘t’ test & p-value
Pre test	3.47	2.43	5.16 (17.2%)	t= -9.19923 P<0.0001, S***
Post test	8.63	1.88		

***p<0.001, S – Significant

Table 5 explains the comparison of pretest and posttest values of Control group. The calculated t value 5.16(17.2%) is greater than the table value, there was a significant difference exists in the mean of pretest and posttest, in can be calculated there was an improvement in the comprehensive skills.

Table 6: Comparison of mean pre-test score on the level of Comprehensiveskills in control group and experimental group (n=50)

Component	Observation	Mean	SD	Un Paired 't' value	Table value
Experimental group	Pre test	3.8	2.87	1.33	0.1865 (S)
Control group	Pre test	3.47	2.43		

*p<0.05, S – Significant, N.S – Not Significant

Table 6 explains the significant difference between the mean value of experimental and control groups. The calculated t value 1.33 reveals that there was a significant difference between the pretest mean value of experimental and control group. This indicates the difference between the pretest means in both the experimental and control group is a true difference. So, the researcher accepts the research hypotheses (H1). This shows that the story map technique was effective in improving on the level of comprehensive skills among school children.

Section IV: Association Between Post-Test Scores on the Level of Comprehensive Skills in Control and Experimental Group with demographic Variables.

Table 7: Association between Post-Test Scores on the Level of Comprehensive Skills in Control group with Demographic Variables (n=30)

DEMOGRAPHIC VARIABLES	Inadequate 2		Moderate 7		Adequate 21		Chi – square test & P - value
	F	%	F	%	F	%	
Age in years							X ² =0.6448 P =0.72441 N.S
5-7 yrs	1	3.3%	3	10%	11	36.6%	
8-10 yrs	1	3.3%	4	13.33%	10	33.3%	
Gender							X ² =1.2798 P =0.527355 N.S
Male	1	3.3%	6	20%	17	56.6%	
Female	1	3.3%	1	3.3%	4	13.33%	
Religion							X ² = 5 P =0.543813 N.S
Hindu	1	3.3%	2	6.6%	5	16.6%	
Muslim	-	-	1	3.3%	5	16.6%	
Christian	1	3.3%	1	3.3%	10	33.3%	
Others	-	-	3	10%	1	3.3%	
Parents Education							X ² = 8.1996 P =0.223845 N.S
Upto 10 thstd	-	-	2	6.6%	1	3.3%	
10-12th std	-	-	1	3.3%	1	3.3%	
Undergraduate	1	3.3%	2	6.6%	3	10%	
Postgraduate	1	3.3%	2	6.6%	16	53.3%	
Type of Family							X ² =2.5 P =0.644636 N.S
Nuclear family	1	3.3%	4	13.33%	8	26.6%	
Joint family	1	3.3%	2	6.6%	3	10%	
Single parent	-	-	1	3.3%	10	33.3%	
Occupation of Parents							X ² = 6.5747 P =0.160146 N.S
Private Sector	1	3.3%	4	13.33%	18	60%	
Government Sector	1	3.3%	3	10%	1	3.3%	
Own Business	-	-	-	-	2	6.6%	
Income							X ² = 1.7609 P =0.940323 N.S
Less than 5000	-	-	2	6.6%	2	6.6%	
5001-10000	-	-	3	10%	5	16.6%	
10001-20000	1	3.3%	1	3.3%	7	23.3%	
Above 20000	1	3.3%	1	3.3%	7	23.3%	
Education of children							X ² = 3.2476 P =0.197152 N.S
1st-2nd std	1	3.3%	4	13.33%	18	60%	
3rd-4th std	1	3.3%	3	10%	3	10%	

*p<0.05, S – Significant, N.S – Not Significant

The table 7 explains the association of demographic variables with the posttest scores of levels of comprehensive skills. There is no association exists among the selected demographic variables such as age in years, gender, Religion, Parent's Education, Types of Family, Occupation of the parents, Income and Education on children with the posttest score of the level of comprehensive skills in the experimental group.

Table 8: Association between post-test scores on the level of Comprehensive skills in Controlgroup with demographic variables (n=30)

DEMOGRAPHIC VARIABLES	Inadequate 1		Moderate 2		Adequate 27		Chi – square test & P - value
	F	%	F	%	F	%	
Age in years							X ² =0.1923 P =0.908324 N.S
5-7 yrs	1	3.3%	1	3.3%	16	53.3%	
8-10 yrs	-	-	1	3.3%	11	36.6%	
Gender							X ² =0.0206 P =0.989751 N.S
Male	1	3.3%	1	3.3%	12	40%	
Female	-	-	1	3.3%	15	50%	
Religion							X ² = 4.6875 P =0.584471 N.S
Hindu	1	3.3%	1	3.3%	14	46.6%	
Muslim	-	-	1	3.3%	6	20%	
Christian	-	-	-	-	5	16.6%	
Others	-	-	-	-	2	6.6%	
Parents Education							X ² = 3.7013 P =0.717023 N.S
Upto 10 thstd	1	3.3%	-	-	1	3.3%	
10-12 th std	-	-	1	3.3%	7	23.3%	
Undergraduate	-	-	1	3.3%	14	46.6%	
Postgraduate	-	-	-	-	5	16.6%	
Type of Family							X ² = 1.8403 P =0.765106 N.S
Nuclear family	1	3.3%	1	3.3%	15	50%	
Joint family	-	-	1	3.3%	8	26.6%	
Single parent	-	-	-	-	4	13.33%	
Occupation of Parents							X ² = 0.6349. P =0.959105 N.S
Private Sector	1	3.3%	2	6.6%	14	46.6%	
Government Sector	-	-	-	-	9	30%	
Own Business	-	-	-	-	4	13.33%	
Income							X ² = 2.9634 P =0.813426 N.S
Less than 5000	1	3.3%	-	-	1	3.3%	
5001-10000	-	-	1	3.3%	6	20%	
10001-20000	-	-	-	-	8	26.6%	
Above 20000	-	-	1	3.3%	12	40%	
Education of children							X ² = 0.3533 P =0.83806 N.S
1 st -2 nd std	1	3.3%	1	3.3%	17	56.6%	
3 rd -4 th std	-	-	1	3.3%	10	33.3%	

*p<0.05, S – Significant, N.S – Not Significant

The table 8 explains the association of demographic variables with the posttest scores of levels of comprehensive skills. There is no association exists among the selected demographic variables such as age in years, gender, Religion, Parent's Education, Types of Family, Occupation of the parents, Income and Education on children with the posttest score of the level of comprehensive skills in the control group.

CONCLUSION

Most of the children have inadequate comprehensive skills while during assessment of the growth and development .Hence it is helped out to acquire more knowledge through by this research study. The calculated t value 5.16(17.2%) is greater than the table value, there was a significant difference exists in the mean of pretest and posttest, in can be calculated there was an improvement in the comprehensive skills and statistically significant.

Ethical Approval: got Ethical approval from Saveetha Medical College and Hospitals

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Conflict Of Interest

Authors declare no conflict of interest.

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