Jana Publication & Research

“A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON BIO-DEGRADABLE AND NON-BI...

10

BioTech

Institut Seni Indonesia Surakarta

Document Details

Submission ID
trn:oid:::1:3234100689

Submission Date
Apr 30, 2025, 11:09 AM GMT+7

Download Date
Apr 30, 2025, 11:47 AM GMT+7

File Name
IJAR-51305.docx

File Size
394.0 KB

15 Pages

3,292 Words

18,361 Characters

45% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text

Match Groups

108 Not Cited or Quoted 45%
Matches with neither in-text citation nor quotation marks

0 Missing Quotations 0%
Matches that are still very similar to source material

0 Missing Citation 0%
Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%
Matches with in-text citation present, but no quotation marks

Top Sources

42% Internet sources
20% Publications
13% Submitted works (Student Papers)

Match Groups

- **108** Not Cited or Quoted 45%
  Matches with neither in-text citation nor quotation marks
- **0** Missing Quotations 0%
  Matches that are still very similar to source material
- **0** Missing Citation 0%
  Matches that have quotation marks, but no in-text citation
- **0** Cited and Quoted 0%
  Matches with in-text citation present, but no quotation marks

Top Sources

- 42% Internet sources
- 20% Publications
- 13% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Internet	repository-tnmgrmu.ac.in 9%
2	Internet	www.jetir.org 6%
3	Internet	iosrjournals.org 5%
4	Internet	www.journalijar.com 3%
5	Publication	Abhiyan K.C.. "Performed Interventions, and Public Claims: A Study of Solid Waste... 2%
6	Internet	ijone.org 2%
7	Internet	documents.mx 1%
8	Internet	www.ijsr.net 1%
9	Internet	www.scribd.com 1%
10	Student papers	Account Sri Balaji Vidyapeeth University 1%

11	Internet	
cmseducation.org		<1%
12	Student papers	
Cebu Technological University		<1%
13	Internet	
ijanm.com		<1%
14	Internet	
www.worldwidejournals.com		<1%
15	Internet	
journalijdr.com		<1%
16	Internet	
ijbi.edwiserinternational.com		<1%
17	Internet	
rsisinternational.org		<1%
18	Internet	
www.coursehero.com		<1%
19	Internet	
mcmed.us		<1%
20	Internet	
www.ijnrd.org		<1%
21	Internet	
ijmpr.in		<1%
22	Internet	
organicabiotech.com		<1%
23	Internet	
int-jecse.net		<1%
24	Student papers	
SASTRA University		<1%

25 Internet
rfppl.co.in <1%

26 Internet
www.jolnt.com <1%

27 Internet
www.journalijdr.com <1%

28 Internet
link.springer.com <1%

29 Publication
Dr. Prof. P. Genesta Mary Gysel, Prof. Mrs. R. Uma, Mrs. K. Sivaranjiny. "A Study To... <1%

30 Internet
gijash.com <1%

31 Internet
issuu.com <1%

32 Internet
journalijcar.org <1%

33 Publication
Phibina Chilate. "The effectiveness of structure teaching programme (STP) on kn... <1%

34 Internet
ijneronline.com <1%

35 Internet
1library.net <1%

36 Internet
ijrti.org <1%

37 Internet
www.gijash.com <1%

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON BIO-DEGRADABLE AND NON-BIO-DEGRADABLE WASTE DISPOSAL MANAGEMENT AMONG SCHOOL STUDENT AT SELECTED SCHOOL, PUDUCHERRY".

Abstract:

Waste is any substance which is discarded after primary use, or is worthless, defective and of no use. The objective of the study is to assess the pre-test knowledge on Bio-Degradable and Non-Bio-degradable wastedisposal management and to evaluate the structured teaching programme regarding Bio-Degradable and Non-Bio-degradable waste disposal management and also to find out association between knowledge on Bio-Degradable and Non-Bio-degradablewaste disposal management with selected demographic variables. A quantitative research approach used in this study. A pre- experimental research design (one group pre-test post test design) was adopted in this study. . Total 100 samplesof both male and female were selected in Government High School. Thirubhuvani, Puducherry.The Period of data collection was six weeks. The purposes and benefits of the study was explained to school students. After obtaining oral consent primarily the demographic data wasobtained from the sample. Investigator assessed the level of knowledge using the questionnaires. The data was collected and were analyzed in terms of both descriptive and inferential statistics. Findings revealed that knowledge in pre-test of out of 100 school students, 10(10%) had inadequate level of knowledge it shows the school students lack in the awareness regarding the bio Degradable and Non-Bio-degradable waste disposal management, 90% of students are having a moderate level of knowledge after giving structured teaching programme out of 100 studentsin level of knowledge, none of them were inadequate knowledge, 85% were moderately adequate knowledge, 15% were in adequate knowledge . The paired 't' test overall value is -31.01 for knowledge which are statisticallyhighly significant at the level of $p<0.001$. This shows the effectiveness of structured teachingprogramme on Bio-Degradable and Non-Bio-degradable waste disposal management , knowledge had improved.In conclusion it was evident that on evaluate the effectiveness of Structured teaching programme on Bio-Degradable and Non-Bio-degradable waste disposal management among school students was very effective. The teaching regarding Bio-Degradable and Non-Bio- degradable waste disposal management will improve the knowledge among school students.

KEYWORDS: Structured teaching programme ,Bio-Degradable and Non-Bio-degradable waste disposal management

I.INTRODUCTION:

Waste is any substance which is discarded after primary use, or is worthless, defective and of no use. Arising the quality of life and high rates of resource consumption patterns have had a unintended and negative impact on the urban environment generation wastes far beyond the handling capacities of urban government agencies. In India we produce 300 to 400 gms of solid waste per person per day in town of Normal size but exceptionally about 500 to 800gms of solid waste is generated per capita per day in metro cities like Delhi and Bombay. If waste is left untreated and disposed of improperly, it can deeply affect the environment.

Statement of the problem*:*

"A study to assess the effectiveness of Structured teaching programme on Bio- Degradable and Non-Bio-degradable waste disposal management among school students at selected school, Puducherry."

Objectives:

- To assess the pre-test knowledge on Bio-Degradable and Non-Bio-degradable waste disposal management
- To evaluate the structured teaching programme regarding Bio-Degradable and Non-Bio-degradable waste disposal management.
- To find out association between knowledge on Bio-Degradable and Non-Bio-degradable waste disposal management with selected demographic variables.

Research hypothesis:

- H1: There is significant difference between pre-test and post test knowledge regarding Bio-Degradable and Non-Bio-degradable waste disposal management.
- H2: There is a significant association between knowledge regarding Bio-Degradable and Non-Bio-degradable waste disposal management with selected demographic variables

Assumptions

Researcher assumes that:

- School students have inadequate knowledge on Bio-Degradable and Non-Bio-degradable waste disposal management
- Structured teaching programme will enhance the knowledge regarding waste disposal management.

II.REVIEW OF LITERATURE:

In 2021 Ritesh Jethi et.al., conducted study to evaluate the effectiveness of structured teaching programme on knowledge regarding plastic waste disposal and its environmental hazards among adolescent of selected higher secondary schools in Ahmedabad city. Quantitative research approach was used with pre-experimental (one group pre-test and post- test) research design. With Nonprobability convenient sampling technique 60 samples selected. Plastic waste disposal and it's environmental hazards objective and selected demographic variables were assessed by modified structured knowledge programme. Afterward structured knowledge programme was administrated. Post test was carried after 7 days. Result revealed in pre-test and post test average knowledge score was 15.08 and 23.65 With standard deviation of 5.03 and 23.65.. significance of the difference between pre-test and post-test knowledge score was statistically tested using paired 't' test and it was found significant at 0.05 level. There was significant increase in the knowledge score of plastic waste disposal and its environmental hazards among adolescents after administration of the structured teaching programme.

III. CONCEPTUAL FRAMEWORK:

The conceptual framework for the study was based on J.W. Kenny's open system theory

IV.MATERIALS AND METHODS:

Research approach:

- A quantitative research approach was adopted for this present study

Research Design:

- A pre- experimental research design (one group pre-test post test design) was adopted in this study.

Setting of the study:

- The study was conducted at the Government High School at Thirubhuvani, Puducherry.

Sample:

- The study sample consists of VI to VIII standard school students in Government High School at Thirubhuvani, Puducherry who will meet the inclusion criteria during the period of study.

Sample Size:

- The sample size of the study consists of 100 school students in Government High School. Thirubhuvanai.

Sampling Technique:

- Samples for this study is selected by Simple random Sampling.

Criteria for sample selection:

- Inclusion Criteria: All IV to VII school students Both genders (male and female).

Exclusion Criteria: Student who are not available at time of data collection Students who already exposure regarding awareness program

Description of tools:

SECTION A: Demographic data consist of 12 items seeking information about such as Age, Gender, Educational status, Educational status of Father, Educational status of Mother, Occupation of father, Occupation of mother Income of family per month, Religion, Type of family, Residency, Previous knowledge regarding Waste disposalmanagement.

SECTION: B Self-administered questionnaire to assess the knowledge regarding Bio-Degradable and Non-Bio- degradable waste disposal management. It has 30 questions. It is prepared by the investigator after referring manyliteratures and then the questionnaire was validated by experts from nursing.

Scoring interpretation:

SCORE	KNOWLEDGE
1-10	Inadequate Knowledge
11-20	Moderately Adequate Knowledge
21-30	Adequate Knowledge

V.MAJOR FINDINGS IN THE STUDY:

Out of the 100 school students who were interviewed, Majority of school students 44(44%) were in the age group 11 years, 61(61%) were female, 44(44%) were VI standard studying, Educational status of Father 43(43%) were Secondary and Degree and above, Educational status of Mother 50(50%) were Secondary, Occupation 53(53%) were Private, Family monthly income 12(40%) were Rs. 7001 - 15,000 /Month, 96(96%) were Hindu, 94(94%) were Nuclear family, 100(100%) were Rural and 90(90%) were not had knowledge regarding Waste disposal management.

The analysis of the data were organized and presented under the following aspect. Findings revealed that knowledge in pre-test of out of 100 school students, 10(10%) had inadequate level of knowledge it shows the school students lack in the awareness regarding the bio Degradable and Non-Bio-degradable waste disposal management, 90% of students are having a moderate level of knowledge, it shows that they are having some idea about Bio-Degradable and Non-Bio-degradable waste disposal management. None of the students had adequate knowledge regarding Bio-Degradable and Non-Bio-degradable waste disposal management among school students.

Finding revealed that after giving structured teaching programme out of 100 studentsin level of knowledge, none of them were inadequate knowledge, 85% were moderately adequate knowledge, 15% were in adequate knowledge.

Finding revealed that in the aspect of their post-test level of the mean and standard deviation in the level of knowledge on Bio-Degradable and Non-Bio- degradable waste disposal management is 12.79± 1.811. Finding revealed that in the aspect ofknowledge their post-test level the mean and standard deviation of the level of knowledge on Bio-Degradable and Non-Bio-degradable waste disposal management is 19.32 ± 1.517.

The paired ‘t’ test overall value is -31.01 for knowledge which are statisticallyhighly significant at the level of p<0.001. This shows the effectiveness of structured teaching programme on Bio-Degradable and Non-Bio-degradable waste disposal management , knowledge had improved.

Table 1:- Frequency and percentage wise distribution of demographic variables among school students.

(N=100)

SL.NO	DEMOGRAPHIC VARIABLES	FREQUENCY (N)	PERCENTAGE (%)
1	**Age in years**		
	a) 11 years	44	44
	b) 12 years	35	35
	c) 13 years	21	21
	d) 14 years	0	0
2	**Gender**		
	a) Male	39	39
	b) Female	61	61
	c) Others	0	0
3	**Class of studying**		
	a) VI standard	44	44
	b) VII Standard	35	35
	c) VIII Standard	21	21
4	**Educational status of Father**		
	a) Illiterate	0	0
	b) Primary	14	14
	c) Secondary	43	43
	d) Degree and above	43	43
5	**Educational status of Mother**		
	a) Illiterate	2	2
	b) Primary	11	11
	c) Secondary	50	50
	d) Degree and above	37	37
6	**Occupation**		

	a) Agriculture	40	40
	b) Unemployed	0	0
	c) Private	53	53
	d) Government	7	7
7	**Income of the family per month**		
	a) Below Rs. 7000	29	29
	b) Rs. 7001 - 15,000	46	46
	c) Rs. 15,001 - 30,000	23	23
	d) Above Rs. 30,000	2	2
8	**Religion**		
	a) Hindu	96	96
	b)Muslim	2	2
	C) Christian	2	2
	d) Others	0	0
9	**Type of Family**		
	a) Nuclear family	94	94
	B) Joint family	6	6
10	**Residency**		
	a) Urban	0	0
	b) Rural	100	100
11	**Previous knowledge regarding Waste disposal management**		
	a) Yes	10	10
	b) No	90	90

Table 2:- Frequency and percentage wise distribution of pretest and post -test of the level of knowledge on Biodegradable and Non-Biodegradable waste disposal management

(N=100)

LEVEL OF KNOWLEDGE	PRETEST		POST TEST	
	N	%	N	%
INADEQUATE	10	10	0	0
MODERATELY ADEQUATE	90	90	85	85
ADEQUATE	0	0	15	15
Mean **Standard deviation**	12.79± 1.811		19.32 ± 1.517	

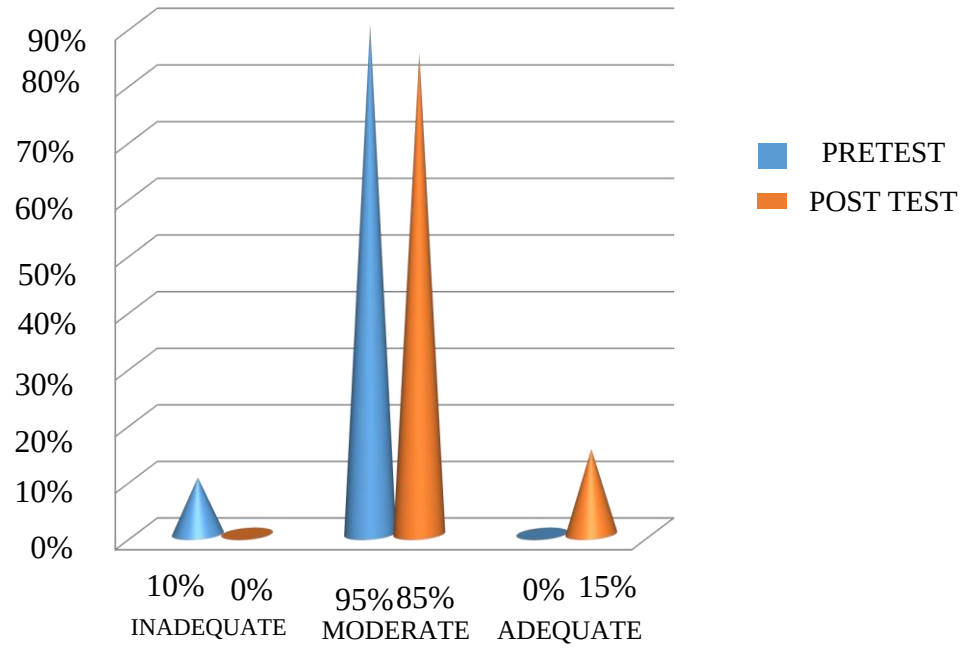

FIG 5.1 :Frequency and percentage wise distribution of pretest and post -test of the level of knowledge

Table – 3 Effectiveness of the level of knowledge of structured teaching programme on Bio-Degradable and Non-Bio-degradable waste disposal management among school students.

(N=100)

GROUP	TEST	MEAN	STANDARD DEVIATON	MEAN DIFFERENCE	't' VALUE Paired -t test	df	'p' VALUE
Level of knowledge of structured teaching programme on Bio-Degradable and Non-Bio-degradable wastedisposal management	**Pretest**	12.79	1.811	-6.53	-31.01	99	**0.000**** **HS**
	Posttest	19.32	1.517				

**-P < 0.001 HIGHLY SIGNIFICANT , NS-NON SIGNIFICANT.

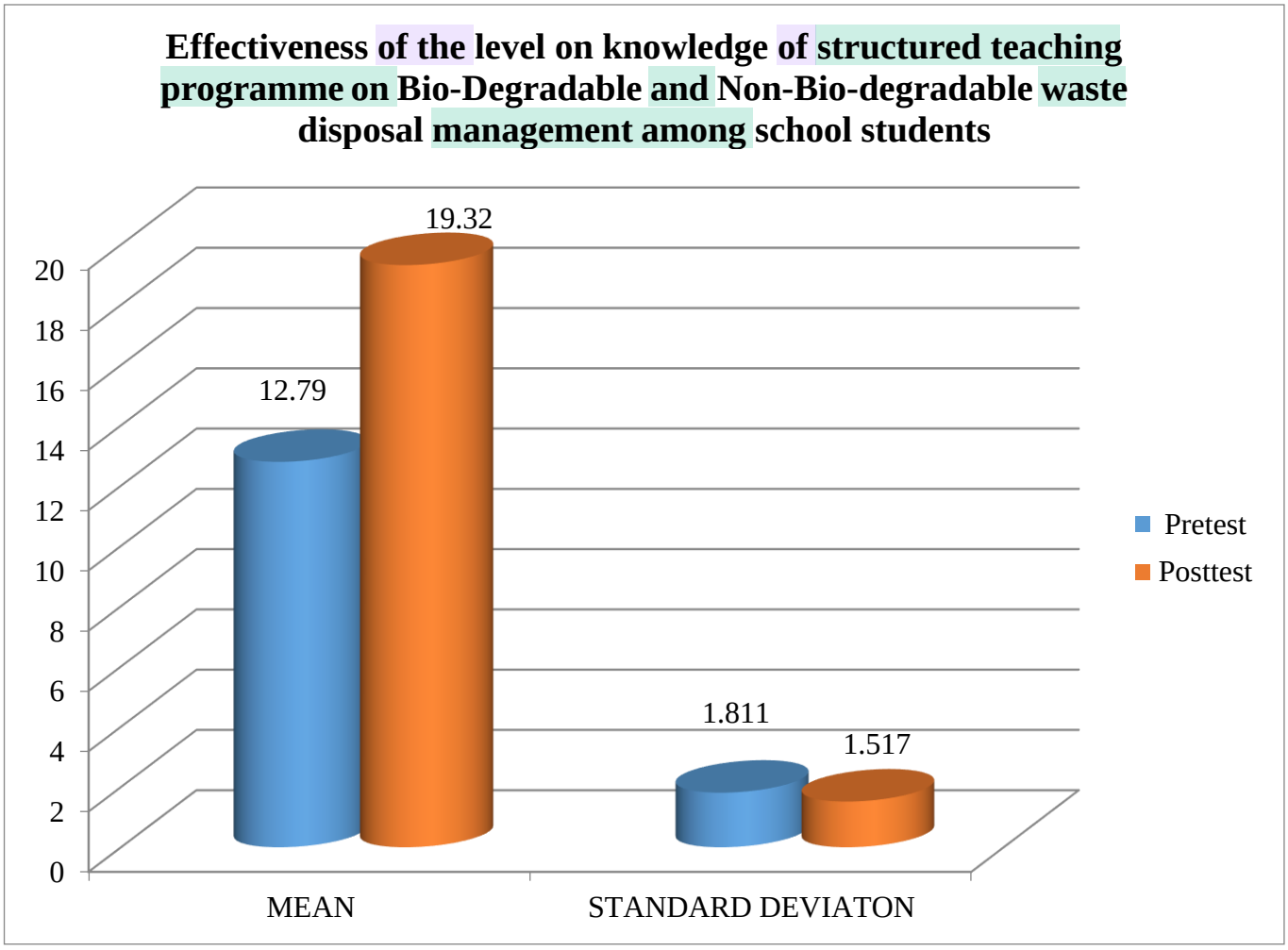

Table –4: Association between the pre-test knowledge on Bio-Degradable and Non-Bio-degradable wastedisposal management with selected demographic variables.

(N=100)

SL. NO	DEMOGRAPHIC VARIABLES	PRE-TEST LEVEL OF KNOWLEDGE				Chi-square X^2 and P-Value
		INADEQUATE		MODERATE		
		N	%	N	%	
1	**Age in years**					X^2=3.44 Df=2 p =0.197
	a) 11 years	2	20	42	46.7	
	b) 12 years	6	60	29	32.2	
	c) 13 years	2	20	19	21.1	
	d) 14 years	0	0	0	0	
2	**Gender**					X^2=1.68 Df=1 p =0.194
	a) Male	2	20	37	41.1	
	b) Female	8	80	53	58.9	
	c) Others	0	0	0	0	
3	**Class of studying**					X^2=3.44 Df=2 p =0.179
	a) VI standard	2	20	42	46.7	
	b) VII Standard	6	60	29	32.2	
	c) VIII Standard	2	20	19	21.1	
4	**Educational status of Father**					**X^2=6.46 Df=2 p =0.040 *S**
	a) Illiterate	0	0	0	0	
	b) Primary	0	0	14	15.6	
	c) Secondary	2	20	41	45.6	
	d) Degree and above	8	80	35	38.8	

5	**Educational status of Mother**					
	a) Illiterate	0	0	2	2.2	X^2=0.962 Df=3 p =0.810
	b) Primary	1	10	10	11.1	
	c) Secondary	4	40	46	51.5	
	d) Degree and above	5	50	32	35.2	
6	**Occupation**					
	a) Agriculture	3	30	37	41.1	X^2=1.66 Df=2 p =0.436
	b) Unemployed	0	0	0	0	
	c) Private	7	70	46	51.1	
	d) Government	0	0	7	7.8	
7	**Income of the family per month**					
	a) Below Rs. 7000	3	30	26	28.9	X^2=2.24 Df=3 p =0.524
	b) Rs. 7001 - 15,000	3	30	43	47.8	
	c) Rs. 15,001 - 30,000	4	40	19	21.1	
	d) Above Rs. 30,000	0	0	2	2.2	
8	**Religion**					
	a) Hindu	10	100	86	95.6	X^2=0.463 Df=2 p =0.793
	b)Muslim	0	0	2	2.2	
	C) Christian	0	0	2	2.2	
	d) Others	0	0	0	0	

9	**Type of Family**					X^2=0.315 Df=1 p =0.575
	a) Nuclear family	9	90	85	94.4	
	B) Joint family	1	10	5	5.6	
10	**Residency**					CONSTANT
	a) Urban	0	0	0	0	
	b) Rural	10	100	90	100	
11	**Previous knowledge regarding Waste disposal management**					X^2=1.23 Df=1 p =0.267
	a) Yes	2	20	8	8.9	
	b) No	8	80	82	91.1	

*-P < 0.05 SIGNIFICANT, *-P < 0.001HIGHLY SIGNIFICANT, NS-NON SIGNIFICANT

The table 4 depicts that the demographic variable, Educational status of Father had shown statistically significant association between the pre-test knowledge on Bio-Degradable and Non-Bio-degradable wastedisposal management with selected demographic variables.

The other demographic variable had not shown statistically significant association between the pre-test knowledge on Bio-Degradable and Non-Bio-degradable waste disposal management with selected demographicvariables respectively.

Table –5: Association between the post-test knowledge on Bio-Degradable and Non-Bio-degradable wastedisposal management with selected demographic variables. (N=100)

SL. NO	DEMOGRAPHIC VARIABLES	POST-TEST LEVEL OF KNOWLEDGE				Chi-square
		MODERATE		ADEQUATE		
		N	%	N	%	X^2 and P-Value
1	**Age in years**					
	a) 11 years	40	47.1	4	26.7	X^2=2.9 Df=2 p =0.234
	b) 12 years	27	31.8	8	53.3	
	c) 13 years	18	21.2	3	20	
	d) 14 years	0	0	0	0	
2	**Gender**					X^2=0.436 Df=1 p =0.509
	a) Male	32	37.6	7	46.7	
	b) Female	53	62.4	8	53.3	
	c) Others	0	0	0	0	
3	**Class of studying**					**X^2=8.9 Df=2 p =0.034 *S**
	a) VI standard	40	47.1	4	26.7	
	b) VII Standard	27	31.8	8	53.3	
	c) VIII Standard	18	21.2	3	20	
4	**Educational status of Father**					X^2=2.44 Df=2 p =0.295
	a) Illiterate	0	0	0	0	
	b) Primary	10	11.8	4	26.7	
	c) Secondary	37	43.5	6	40	
	d) Degree and above	38	44.7	5	33.3	
5	**Educational status of Mother**					

	a) Illiterate	2	2.4	0	0	X^2=1.3
	b) Primary	9	10.6	2	13.3	Df=3
	c) Secondary	41	48.2	9	60	p =0.729
	d) Degree and above	33	38.8	4	26.7	
6	**Occupation**					
	a) Agriculture	31	36.5	9	60	X^2=3.56
	b) Unemployed	0	0	0	0	Df=2
	c) Private	47	55.3	6	40	p =0.168
	d) Government	7	8.2	0	0	
7	**Income of the family per month**					
	a) Below Rs. 7000	22	25.9	7	46.7	X^2=2.937
	b) Rs. 7001 - 15,000	41	48.2	5	33.3	Df=3
	c) Rs. 15,001 - 30,000	20	23.5	3	20	p =0.401
	d) Above Rs. 30,000	2	2.4	0	0	
8	**Religion**					
	a) Hindu	81	95.3	15	100	X^2=0.735
	b)Muslim	2	2.4	0	0	Df=2
	C) Christian	2	2.4	0	0	p =0.692
	d) Others	0	0	0	0	
9	**Type of Family**					X^2=0.014
	a) Nuclear family	80	94.1	14	93.3	Df=1
	B) Joint family	5	5.9	1	6.7	p =0.906
10	**Residency**					

	a) Urban	0	0	0	0	CONSTANT
	b) Rural	85	100	15	100	
11	**Previous knowledge regarding Waste disposal management**					X^2=1.96 Df=1 p =0.161
	a) Yes	7	8.2	3	20	
	b) No	78	91.8	12	80	

The demographic variable of Educational status of Father had shown statistically significant association between the level of pre-test knowledge on Bio-Degradable and Non-Bio-degradable waste disposal management with chi square value of X2=6.46 , p value = 0.040* at p>0.05 level.

The demographic variable of class of studying had shown statistically significant association between the level of pre-test knowledge on Bio-Degradable and Non-Bio-degradable waste disposal management with chi square value of X2= 8.9 , p value = 0.034 *at p>0.05 level.

Hence the hypothesis was accepted.

VI.CONCULSION

The study result shown that the paired 't' test value of knowledge among students was 't' =-31.01 and 0.000**. Hence it is highly significant.The higher mean difference shows positive outcome among students, therefore the education regarding Bio-Degradable and Non-Bio-degradable waste disposal management by using knowledge questionnaire among school students can increase the knowledge.In conclusion it was evident that on evaluate the effectiveness of Structured teaching programme on Bio-Degradable and Non-Bio-degradable waste disposal management among school students was very effective.

IMPLICATION OF YHE STUDY:

Nursing practice:

The nurse working in community setting should practice health education as an integrated part of nursing profession.The planned health teaching programmes have to be scheduled in the community setup in the fixed date wit:h time for individual ,the family members and others in the community.

Nursing education:

The study emphasis the need of educating the nursing personal, non nursing personal and the public through in service or continuing Programme to update their knowledge and skills in educating waste disposal management

Nursing research:

The generalization of the study result can be made by further replication of the study. This study help to nurse research to develop the guidelines regarding the management of waste . This study helps in nursing research in depth into the better development of the nursing care regarding disposal of waste among adults in prevention of health hazards.

Nurse administrators:

The administrators should initiate health education in the community by utilizing the staff, preparing them through adequate training and encouragement to conduct such activity.The good administrator's role involves the effective communication and updating knowledge.

RECOMMENDATIONS :

The following recommendations were made by the investigator after the study:

- Structured teaching Programme can be improved by self help group and can be motivated by nursing personnel as part of the health care service.
- Coverage by mass media like doordharshan and newspaper regarding disposal of waste to the general public.
- 'Health education model related to importance of waste disposal and prevention of health hazards can be imparted to all the school students and to the public.
- The same study can be conducted in different settings

VII.REFERENCES:

BOOK REFERENCES:

- K. Park . A text book of preventive and social medicine published by Bhaot , Edition 25 th
- Basavanthappa B.T. (1999), "Community Health Nursing", 1st Edition, Jaypee Publishers
- Bhaskara Rao J. (2002), "Principles of community Medicine", 3rd Edition, Aitbs Publication.
- Gulani K.K. (2005), "Community Health Nursing", 1st Edition, Kumar Publishing House.
- Judith Ann Allender (2002), "Community Health Nursing Promoting and Protecting the Public Health", 4th Edition, Lippin Cott Publications
- Kamalan. S (2005), "Essential in Community Health Nursing", 4th Edition, Jaypee Publications

JOURNAL REFERENCES:

- Manual of biodegradable waste management Available from URL: (https://swachhbharatmission.gov.in/sbmcms/writereaddata/Portal/Images/pdf/Biodegradable_Waste_Management_Manual_English.pdf)
- Non – Biodegradable waste management and solutions Available from URL: (https://organicabiotech.com/an-overview-of-non-biodegradable-waste-management-and-solutions/)
- Degradable and Non degradable waste management Available from URL: (https://www.geeksforgeeks.org/biodegradable-and-non-biodegradable/)
- Trends in solid waste management-World Bank Available from URL:(https://www.worldbank.org/en/topic/urbandevelopment/brief/solid-waste-management)
- Akhilesh kumar .et.al , Recent trends in solid waste management status , challenges and potential for thefuture Indian cities – A review . Journal of current research in Environmental sustainability; December 2020 (2) : 2-15. https://doi.org/10.1016/j.crsust.2020.100011
- Waste Management- Tamil Nadu pollution control Board Available from URL: (https://tnpcb.gov.in/wastenew.php).
- Solid waste management to be rolled out in rural area. Available from URL : https://www.thehindu.com/news/cities/puducherry/solid-waste-management-to-be-rolled-out-in-rural-areas/article65357563.ece
- Khushboo Yadav .et.al , A study to assess knowledge and practice regarding The Proper Disposal of Refuse and Sewage among housewives in the selected rural area of Lucknow Uttar Pradesh with view todevelop a Booklet . Jouranl of Emerging Technologies and Innovative Research. 7(7).56-63. (https://www.jetir.org/papers/JETIR2007306.pdf)
- Eveth P. Barloa et.al., Knowledge, Attitudes, and Practices on Solid Waste Management among Undergraduate Students in a Philippine State University. Journal of Environment and Earth Science: January 2021 :6 (6): 35-47. (https://www.researchgate.net/publication/304716473)
- **Ritesh Jethi et.al ,** A study to evaluate the effectiveness of structured teaching programme on knowledgeregarding plastic waste disposal and its environmental hazards among adolescent of selected higher secondary schools in Ahmedabad city. Journal of Emerging Technologies and Innovative Research; December 2021 . 8 (12): 821-829. (https://www.jetir.org/papers/JETIR2112195.pdf)
- Grace Prasad's et.al., A study to assess the effectiveness of structured teaching programme on the knowledge of hazards of plastic use among school children at Subash Menorial High school, Bangalore. Researchgate. 2020 January. http://dx.doi.org/10.5958/2454-2660.2020.00073.3.