# "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".

# 6 Abstract:

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Waste is any substance which is discarded after primary use, or is worthless, defective and of no 7 use. The objective of the study is to assess the pre-test knowledge on Bio-Degradable and Non-Bio-8 degradable wastedisposal management and to evaluate the structured teaching programme regarding 9 10 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 11 selected demographic variables. A quantitative research approach used in this study. A pre-experimental 12 research design (one group pre-test post test design) was adopted in this study. . Total 100 samples of both 13 14 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 15 obtaining oral consent primarily the demographic data wasobtained from the sample. Investigator 16 assessed the level of knowledge using the questionnaires. The data was collected and were analyzed in 17 terms of both descriptive and inferential statistics. Findings revealed that knowledge in pre-test of out of 18 100 school students, 10(10%) had inadequate level of knowledge it shows the school students lack in the 19 awareness regarding the bio Degradable and Non-Bio-degradable waste disposal management, 90% of 20 students are having a moderate level of knowledge after giving structured teaching programme out of 100 21 studentsin level of knowledge, none of them were inadequate knowledge, 85% were moderately adequate 22 knowledge, 15% were in adequate knowledge. The paired 't' test overall value is -31.01 for knowledge 23 which are statistically highly significant at the level of p<0.001. This shows the effectiveness of structured 24 teachingprogramme on Bio-Degradable and Non-Bio-degradable waste disposal management, 25 knowledge had improved. In conclusion it was evident that on evaluate the effectiveness of Structured 26 teaching programme on Bio-Degradable and Non-Bio-degradable waste disposal management among 27 school students was very effective. The teaching regarding Bio-Degradable and Non-Bio- degradable 28 waste disposal management will improve the knowledge among school students. 29

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

# 32 **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.

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- 42 **Statement of the problem**:

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"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, 44

### Puducherry." 45

### **Objectives:** 46

- To assess the pre-test knowledge on Bio-Degradable and Non-Bio-degradable waste 47 disposal management 48
- To evaluate the structured teaching programme regarding Bio-Degradable and Non-Bio-49 degradable waste disposal management. 50
  - To find out association between knowledge on Bio-Degradable and Non-Bio-degradable waste disposal management with selected demographic variables.

### **Research hypothesis:** 53

- H1: There is significant difference between pre-test and post test knowledge regarding Bio-Degradable and Non-Bio-degradable waste disposal management. 55
  - H2: There is a significant association between knowledge regarding Bio-Degradable and Non-Bio-• degradable waste disposal management with selected demographic variables

### Assumptions 58

- 59 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:** 64

In 2021 Ritesh Jethi et.al., conducted study to evaluate the effectiveness of structured teaching 65 programme on knowledge regarding plastic waste disposal and its environmental hazards among 66 adolescent of selected higher secondary schools in Ahmedabad city. Quantitative research approach was 67 used with pre-experimental (one group pre-test and post- test) research design. With Nonprobability 68 convenient sampling technique 60 samples selected. Plastic waste disposal and it's environmental hazards 69 objective and selected demographic variables were assessed by modified structured knowledge 70 programme. Afterward structured knowledge programme was administrated. Post test was carried after 7 71 days. Result revealed in pre-test and post test average knowledge score was 15.08 and 23.65 With 72 73 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. 74 There was significant increase in the knowledge score of plastic waste disposal and its environmental 75 hazards among adolescents after administration of the structured teaching programme. 76

### **III. CONCEPTUAL FRAMEWORK:** 77

The conceptual framework for the study was based on J.W. Kenny's open system theory 78

### **IV.MATERIALS AND METHODS:** 79

- **Research** approach: 80
  - A quantitative research approach was adopted for this present study

### **Research Design:** 82

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

### Setting of the study: 84

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

### Sample: 86

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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.

## 89 Sample Size:

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- The sample size of the study consists of 100 school students in Government High School. Thirubhuvanai.
- 92 Sampling Technique:
  - Samples for this study is selected by Simple random Sampling.
- 94 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

# 98 **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.

103 SECTION: B Self-administered questionnaire to assess the knowledge regarding Bio-Degradable 104 and Non-Bio- degradable waste disposal management. It has 30 questions. It is prepared by the investigator 105 after referring manyliteratures and then the questionnaire was validated by experts from nursing.

# 106 Scoring interpretation:

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

# 107 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 students in 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  $12.79\pm 1.811$ . Finding revealed that in the aspect of knowledge their post-test level the mean and standard deviation of the level of knowledge on Bio-Degradable and Non-Biodegradable waste disposal management is  $19.32 \pm 1.517$ .

The paired 't' test overall value is -31.01 for knowledge which are statistically highly 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.

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

(N=100)

DEMOGRAPHIC VARIABLES	FREQUENCY (N)	PERCENTAGE (%)
Age in years	1	
a) 11 years	44	44
b) 12 years	35	35
c) 13 years	21	21
d) 14 years	0	0
Gender		
a) Male	39	39
b) Female	61	61
c) Others	0	0
Class of studying		-
a) VI standard	44	44
b) VII Standard	35	35
c) VIII Standard	21	21
Educational status of Father		
a) Illiterate	0	0
b) Primary	14	14
c) Secondary	43	43
d) Degree and above	43	43
Educational status of Mother		
a) Illiterate	2	2
b) Primary	11	11
	<b>Age in years</b> a) 11 yearsb) 12 yearsc) 13 yearsd) 14 years <b>Gender</b> a) Maleb) Femalec) Others <b>Class of studying</b> a) VI standardb) VII Standardc) VIII Standardb) Primaryc) Secondaryd) Degree and above <b>Educational status of Mother</b> a) Illiterateb) Primaryc) Secondaryd) Degree and aboveEducational status of Mothera) Illiterateb) Primaryc) Secondaryd) Degree and aboveEducational status of Mothera) Illiterateb) Primaryc) Secondaryd) Degree and aboveEducational status of Mothera) Filterateb) Primaryc) Secondaryd) Degree and aboveEducational status of Mothera) Filterateb) Primaryc) Secondaryd) Degree and above	DEMOGRAPHIC VARIABLESFREQUENCY (N)Age in years

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					
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	b) Rural	100	100				
11	Previous knowledge regarding Waste disposal management						
	a) Yes	10	10				
	b) No	90	90				

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

(N=100)

	PRE	PRETEST		POST TEST	
LEVEL OF KNOWLEDGE	N	%	Ν	%	
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		



-31.01

0.000\*\*

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Level of knowledge of		12.79	1.811	
structured teaching	Pretest			
programme on Bio-				6.53
Degradable and Non-Bio-				-0.55
degradable wastedisposal		19.32	1.517	
management	Posttest			

181 \*\*-p<0.001 HIGHLY SIGNIFICANT, NS-NON SIGNIFICANT.

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

SL.	DEMOGRAPHIC	PRE-TEST LEVEL OF KNOWLEDGE           EMOGRAPHIC           INADEOUATE           MODERATE			Chi-square	
NO	<b>VARIABLES</b>	N	%	N	%	X <sup>2</sup> and P-Value
1	Age in years					¥ <sup>2</sup> 0.44
	a) 11 years	2	20	42	46.7	X <sup>-</sup> =3.44

5	Educational status of Mo					
	a) Illitarata	0	0	2	2.2	X <sup>2</sup> =0.962
1	a) initerate	6	60	29	32.2	DDf <del>⊋</del> 2
	b) 12 years	1	10	10	11.1	DI=3 <sup>-</sup>
	0) Fillinary	2	20	19	21.1	p =0.197
	+ c) 15 years					
	d) 14 years	0	0	0	0	-
2	Gender					
	a) Male	2	20	37	41.1	- X <sup>2</sup> =1.68
	b) Ferrela	0	80	52	59.0	Df=1
	d) Female	8	80	55	58.9	n = 0.104
	c) Others	0	0	0	0	p =0.194
						Y
3	Class of studying			/		
			20	10	167	$X^2 = 3.44$
	a) VI standard	2	20	42	40.7	
	h) VII Cton doud	E E	(0)	20	22.2	Df=2
	b) VII Standard	0	60	29	32.2	<b>a</b> 0.170
	-) VIII Ctow dowd		20	10	21.1	p = 0.179
	c) viii Standard	2	20	19	21.1	
4	Educational status of F	ather				
	a) Illiterate	0	0	0	0	- X <sup>2</sup> =6.46 Df=2
	b) Primary	0	0	14	15.6	p =0.040
						*S
	c) Secondary	2	20	41	45.6	
	d) Degree and above	8	80	35	38.8	-
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(N=100)

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

9	Type of Family					$X^2 = 0.315$
-	a) Nuclear family	9	90	85	94.4	Df=1
						p =0.575
		1	10	5	5.6	1
	B) Joint family					
10	Residency		I	II		
						CONFTANT
	a) Urban	0	0	0	0	CONSTANT
	b) Rural	10	100	90	100	
11	Provious knowledge regs	rding Weste d	icnocal manac	omont		$X^2 - 1.23$
11	T Tevious knowledge Tega	ii uing waste u	nsposar manag	gement		$\Lambda = 1.23$
		2	20	8	8.9	Df=1
	a) res			4		n -0.267
		8	80	82	91.1	p =0.207
	b) No					

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\*-P < 0.05 significant, \*-P < 0.001 highly significant, NS-Non significant

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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-Biodegradable wastedisposal management with selected demographic variables.

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

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248 Table –5: Association between the post-test knowledge on Bio-Degradable and Non-Bio-degradable

249 wastedisposal management with selected demographic variables. (N=100)

		POST-TEST LEVEL OF KNOWLEDGE				Chi-square
SL.	DEMOGRAPHIC	MOI	DERATE	ADE	EQUATE	X <sup>2</sup> and P-Value
NO	VARIABLES	N	%	Ν	%	
1	Age in years					R
	a) 11 years	40	47.1	4	26.7	$X^2 = 2.9$
	b) 12 years	27	31.8	8	53.3	p = 0.234
	c) 13 years	18	21.2	3	20	P 0.201
	d) 14 years	0	0	0	0	
2	Gender					X <sup>2</sup> =0.436
	a) Male	32	37.6	7	46.7	Df=1
	b) Female	53	62.4	8	53.3	p =0.509
	c) Others	0	0	0	0	
3	Class of studying				L	X <sup>2</sup> =8.9
	a) VI standard	40	47.1	4	26.7	Df=2
	b) VII Standard	27	31.8	8	53.3	μ=0.034 *S
	c) VIII Standard	18	21.2	3	20	
4	Educational status of Fa	2				
	a) Illiterate	0	0	0	0	X <sup>2</sup> =2.44
	b) Primary	10	11.8	4	26.7	p = 0.295
	c) Secondary	37	43.5	6	40	
	d) Degree and above	38	44.7	5	33.3	

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5	Educational status of M					
	a) Illiterate	2	2.4	0	0	X <sup>2</sup> =1.3
		9	10.6	2	13.3	Df=3
	b) Primary	,	10.0	2	13.5	p =0.729
	c) Secondary	41	48.2	9	60	
	d) Degree and above	33	38.8	4	26.7	2
6	Occupation					
	a) Agriculture	31	36.5	9	60	X <sup>2</sup> =3.56
	b) Unemployed	0	0	0	0	Df=2
	b) Onemployed	47			10	p=0.168
	c) Private	47	55.3	6	40	
	d) Government	7	8.2	0	0	
7	Income of the family per					
	a) Below Rs. 7000	22	25.9	7	46.7	X <sup>2</sup> =2.937
	b) Rs. 7001 - 15,000	41	48.2	5	33.3	DI=3 p =0.401
	c) Rs. 15,001 - 30,000	20	23.5	3	20	-
	d) Above Rs. 30,000	2	2.4	0	0	
8	Religion					
	a) Hindu	81	95.3	15	100	X <sup>2</sup> =0.735
	b)Muslim	2	2.4	0	0	p =0.692
	C) Christian	2	2.4	0	0	
	d) Others	0	0	0	0	
9	Type of Family	Type of Family				
	a) Nuclear family	80	94.1	14	93.3	Df=1 p =0.906
	B) Joint family	5	5.9	1	6.7	r

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10	Residency					
	a) Urban	0	0	0	0	CONSTANT
	b) Rural	85	100	15	100	0
11	Previous knowledge regarding Waste disposal management					X <sup>2</sup> =1.96
	a) Yes	7	8.2	3	20	DI=1
						p = 0.161
	b) No	78	91.8	12	80	r shor

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. 268

The demographic variable of class of studying had shown statistically significant association 269 between the level of pre-test knowledge on Bio-Degradable and Non-Bio-degradable waste disposal 270 management with chi square value of X2=8.9, p value = 0.034 \*at p>0.05 level. 271

272 Hence the hypothesis was accepted.

### 273 VI.CONCULSION

The study result shown that the paired 't' test value of knowledge among students was 't' =-31.01 274 and 0.000\*\*. Hence it is highly significant. The higher mean difference shows positive outcome among 275 students, therefore the education regarding Bio-Degradable and Non-Bio-degradable waste disposal 276 management by using knowledge questionnaire among school students can increase the knowledge.In 277 conclusion it was evident that on evaluate the effectiveness of Structured teaching programme on Bio-278 279 Degradable and Non-Bio-degradable waste disposal management among school students was very effective.

### **IMPLICATION OF YHE STUDY:** 280

### Nursing practice: 281

The nurse working in community setting should practice health education as an integrated part of 282 nursing profession. The planned health teaching programmes have to be scheduled in the community setup 283 in the fixed date wit: h time for individual, the family members and others in the community. 284

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### **Nursing education:** 288

The study emphasis the need of educating the nursing personal, non nursing personal and the public 289 through in service or continuing Programme to update their knowledge and skills in educating waste 290 disposal management 291

### Nursing research: 292

The generalization of the study result can be made by further replication of the study. This study 293 help to nurse research to develop the guidelines regarding the management of waste. This study helps in 294 nursing research in depth into the better development of the nursing care regarding disposal of waste among 295 adults in prevention of health hazards. 296

### Nurse administrators: 297

298 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 299 administrator's role involves the effective communication and updating knowledge. 300

301	RECO	DMMENDATIONS :
302	The fo	llowing recommendations were made by the investigator after the study:
303	•	Structured teaching Programme can be improved by self help group and can be motivated by nursing
304		personnel as part of the health care service.
305	•	Coverage by mass media like doordharshan and newspaper regarding disposal of waste to the
306		general public.
307	•	'Health education model related to importance of waste disposal and prevention of health hazards
308		can be imparted to all the school students and to the public.
309	•	The same study can be conducted in different settings
310	VII.R	EFERENCES:
311	BOO	K REFERENCES:
312	•	K. Park . A text book of preventive and social medicine published by Bhaot, Edition 25 th
313	•	Basavanthappa B.T. (1999), "Community Health Nursing", 1st Edition, Jaypee Publishers
314	•	Bhaskara Rao J. (2002), "Principles of community Medicine", 3rd Edition, Aitbs Publication.
315	•	Gulani K.K. (2005), "Community Health Nursing", 1st Edition, Kumar Publishing House.
316	•	Judith Ann Allender (2002), "Community Health Nursing Promoting and Protecting the Public
317		Health", 4th Edition, Lippin Cott Publications
318	•	Kamalan. S (2005), "Essential in Community Health Nursing", 4th Edition, Jaypee Publications
319	JOUR	RNAL REFERENCES:
320	•	Manual of biodegradable waste management Available from URL:
321		(https://swachhbharatmission.gov.in/sbmcms/writereaddata/Portal/Images/pdf/Biodegradable_Waste
322		Management Manual English.pdf)
323	•	Non – Biodegradable waste management and solutions
324		Available from URL: ( https://organicabiotech.com/an-overview-of-non-biodegradable-waste-
325		management-and-solutions/)
326	•	Degradable and Non degradable waste management
327		Available from URL: (https://www.geeksforgeeks.org/biodegradable-and-non-biodegradable/)
328	•	Trends in solid waste management-World Bank
329		Available from URL:(https://www.worldbank.org/en/topic/urbandevelopment/brief/solid-waste-
330		management)
331	•	Akhilesh kumar .et.al. Recent trends in solid waste management status . challenges and potential
332		for the future Indian cities – A review . Journal of current research in Environmental sustainability;
333		December 2020 (2) : 2-15. https://doi.org/10.1016/j.crsust.2020.100011
334	•	Waste Management- Tamil Nadu pollution control
335		Board Available from URL:
336		(https://tnpcb.gov.in/wastenew.php).
337	•	Solid waste management to be rolled out in rural area.
338		Available from URL : <u>https://www.thehindu.com/news/cities/puducherry/solid-waste-management-</u>
339		to-be-rolled-out-in-rural-areas/article65357563.ece
340	•	Khushboo Yadav .et.al, A study to assess knowledge and practice regarding The Proper Disposal
341		of Refuse and Sewage among housewives in the selected rural area of Lucknow Uttar Pradesh with
342		view todevelop a Booklet . Jouranl of Emerging Technologies and Innovative Research. 7(7).56-63.
343		(https://www.jetir.org/papers/JETIR2007306.pdf)
344	•	Eveth P. Barloa et.al., Knowledge, Attitudes, and Practices on Solid Waste Management among
345		Undergraduate Students in a Philippine State University. Journal of Environment and Earth
346		Science: January 2021 :6 (6): 35-47. ( <u>https://www.researchgate.net/publication/304/16473</u> )
347	•	<b>Kitesn Jethi et.al</b> , A study to evaluate the effectiveness of structured teaching programme on
348		knowledgeregarding plastic waste disposal and its environmental hazards among adolescent of
349 250		selected higher secondary schools in Anmedabad city. Journal of Emerging Technologies and Innovative Research: December 2021, 8 (12): 821,820. (
33U 351		https://www.jetir.org/papers/IETIR2112105.pdf)
551		$\frac{1}{1} \frac{1}{1} \frac{1}{2} \frac{1}$

- 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. <u>http://dx.doi.org/10.5958/2454-2660.2020.00073.3.</u>

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