

A Study to Assess the Effectiveness of Video-Assisted Teaching Programme on Knowledge Regarding Biodegradable and Non-Biodegradable Waste among School Children in Selected School, Namakkal District

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Abstract:-

➤ *Background:*

Worldwide burden of waste increases day-through-day results in environmental issues including pollutants, climatic exchange and so forth. Video-assisted coaching programme concerning biodegradable and non-biodegradable waste improves the knowledge amongst faculty youngsters.

➤ *Objectives:*

To assess the effectiveness of video assisted teaching software on expertise regarding biodegradable and non-biodegradable waste among faculty children. design: Pre-experimental one organization pretest posttest design. Setting: selected school, Namakkal. 50 college kids, pleasing the inclusion standards had been selected via handy sampling method.

➤ *Selection Criteria:*

Decided on school, Namakkal. 50 college children, pleasing the inclusion standards have been decided on thru on hand sampling approach

➤ *Methods:*

The take a look at turned into carried out with 50 school children. based questionnaire turned into used because the evaluation tool.

➤ *Results:*

The look at findings concluded that the video-assisted teaching become powerful on improving know-how regarding biodegradable and non-biodegradable waste among college youngsters with paired t-check rating fifty four.25 which turned into statistically giant to $p < 0.001$. No massive association between the school children's knowledge and their demographic variables.

➤ *Conclusion:*

The locating of the have a look at concluded that the video-assisted teaching was very powerful in enhancing the level of know-how of school children regarding biodegradable and non-biodegradable waste. there was an awesome development in knowledge rating between pre-take a look at and post-test 57.6% (forty three.6% - seventy one.6%) among college kids $\chi^2 = 20.74$ with statistical significance at $p = 0.00011$. therefore, video-assisted teaching has proved as a method to improve the knowledge of college kids regarding biodegradable and non-biodegradable waste.

Keywords:- Effectiveness, Information, Biodegradable and Non-Biodegradable Waste, Decided on Hospitals.

I. INTRODUCTION

“Let's take a step ahead to save environment.”

Wastes, an undesirable or unusable substances, which might be of any substance discarded after number one use, or is worthless, defective and of no need. A using comparison is a joint made from relatively minor financial price. A waste spinoff can also grow to be a joint derivative or resource through an invention that raises a waste spinoff's fee above zero. It includes municipal waste (household trash/refuse), dangerous waste, wastewater (sewage, physical waste-feces, urine, and surface runoff), radioactive waste and others (Doron Assa, 2018).

Biodegradable wastes are waste materials which are effortlessly degraded or broken down certainly with the aid of elements which include biotic (bacteria, fungi, flowers, animals, and many others.) and abiotic (pH, temperature, oxygen, humidity, and so on.). The procedure is such that complicated organic rely is broken down into less complicated natural compounds such as carbon dioxide, water, methane, or easy organic molecules by using microorganisms and different residing matters, performing in composting, cardio digestion, anaerobic digestion, or comparable methods (Rani R, 2021)

Non-biodegradable wastes are any waste type which cannot be decomposed by natural or biological processes is considered as non-biodegradable waste. Besides plastic, glass and metals, it includes cardboard, paper, old clothes, thermocol sheets, cans, man-made polymer, biomedical waste, chemical waste, electronics, batteries etc. All human activities can create non-biodegradable waste, ranging from households, industries to hospitals, agriculture, construction and other fields. Generally, plastic waste, electronic waste such as discarded mobiles, laptops, batteries, steel wastes from steel utensils and glass are derived from households (Rohan Bhansali,2021).

A. Objectives

- To assess the expertise regarding biodegradable and non-biodegradable waste amongst faculty kids.
- To assess the effectiveness of video assisted coaching software on expertise concerning biodegradable and non-biodegradable waste among college youngsters.
- To discover the association between pre-test degree with their related demographic variables.

B. Hypothesis

- H1- - There can be giant development in knowledge concerning biodegradable and nonbiodegradable waste amongst school children after the implementation of video-assisted teaching.
- H2- - There might be a widespread affiliation among pre-take a look at level of information regarding biodegradable and non-biodegradable waste amongst school youngsters with selected demographic variables.

II. LITERATURE REVIEW

Antony M, 2022, performed a descriptive observe to assess the stable waste control recognition and practices amongst better schooling college students in Zambales. information accumulated the use of established questionnaire with the pattern size of 338 college students. The result discovered that 87.ninety one% of responses are from public higher education institutions, and 12.09% from personal higher schooling establishments. The study concluded that various response of mindset in the direction of the control of waste amongst public and private region college students.

Molina R A, Catan, 2021, done a descriptive examine regarding consciousness and exercise of strong waste control among senior excessive school students in a kingdom college in Zamboanga town, Philippines with the full pattern length of 332 students the usage of a based questionnaire. The end result concluded that scholars have proper stable waste management practices in phrases on segregation, reduction, reuse, recycle and disposal.

Vasanth, et al., 2021, a pre-experimental look at to assess the effectiveness of video assisted teaching software on residence maintain solid waste control amongst city network in Kumbakonam, Tanjavur district, Tamilnadu. The look at concluded that there was a good sized development in expertise after implementing video assisted teaching program with a posttest imply score 26-73 (88.7%) with standard deviation 2-1/2.

Nisha, 2017, a pre-experimental examine to evaluate the effectiveness of video assisted coaching on knowledge concerning ill consequences of plastic utilization amongst homemakers in Chennai amongst one hundred samples. statistics amassed and analysed, found out that the video had progressed the information of homemakers concerning sick outcomes of plastic usage, with paired t- test full-size at p cost is 0.1/2. It concluded that the video assisted coaching was effective in improving the knowledge of homemakers on sick outcomes of plastic utilization.

III. METHODOLOGY

- Design. in this Study, the researcher adopted pre-experimental, one organization pre take a look at post check design. Setting The look at became performed in selected college, at Namakkal district. the total scholar electricity is 1200 and those with the age thirteen-14 years are a hundred and sixty college students
- Sample: in this present observe, the chosen sample had been faculty children of age thirteen – 14 years who fulfill the inclusion criteria in decided on college, Namakkal district.
- Sample Size: on this present observe the sample size turned into 50 school kids consist of both male and female from selected faculty, Namakkal district. Sampling method Non probability comfort sampling method turned into used to select the samples for the look at.
- Development of Tool: Section A: Demographic data. Section B: Structured self-administered questionnaires Section C: Scoring criteria.
- Data Collection Procedure: for the duration of the first go to, the researcher added herself and defined the cause of the look at. school youngsters's understanding concerning biodegradable and non-biodegradable waste was assessed using dependent self-administered questionnaire as pre-take a look at. After that, video assisted teaching regarding biodegradable and non-biodegradable waste changed into given on equal day for half-hour. at the 7th day, submit-textual content was carried out the usage of equal based questionnaire.

IV. RESULTS

Table 1: Frequency and Percentage Distribution of School Children According to their Demographic Variables.

Demographic variable		Frequency	Percentage
Age	13 years	20	40%
	14 years	30	60%
Gender	Male	22	44%
	Female	28	56%
Class of study	VIII standard	23	46%
	IX standard	27	54%
Children have ever disposed household waste before	Yes	40	80%
	No	10	20%
Those separate biodegradable and non-biodegradable waste at home	Yes	12	24%
	No	38	76%
Method of discarding waste	Dumping	20	40%
	Burning	15	30%
	Burial	5	10%
	Common Dustbin	10	20%

Table 1: suggests the demographic facts of the college children selected for the look at to assess the effectiveness of video-assisted teaching in know-how concerning biodegradable and non-biodegradable waste in decided on faculty, Namakkal. according to the desk 4.1, the age institution of the individuals revealed that the general public of the children have been of 14 years of age with the percentage of 60% and the last children of age thirteen years with 40% of the overall contributors. The desk four.1 found out that gender of the individuals with a higher percent of fiftysix% of woman kids and the final individuals were male kids with the percentage of forty four%. in line with the desk four.1, participant’s widespread of studying depicts that a better percent of children studied in IX th preferred (54%). The remaining percent of kids have been studied in VIII th

trendy (46%). many of the participants, the story four.1 indicates a majority of members who've ever disposed waste before with an extended percent of 80%. then again, last 20% of the kids haven’t ever disposed waste earlier than. consistent with this table, the individuals those who have separated biodegradable and non-biodegradable waste at domestic with the share of 24% and the final 76% of the kids haven’t separated biodegradable and non-biodegradable waste at domestic. The desk 4.1 shows that the technique of discarding waste most of the college children. In that, majority of them with a 40% of youngsters discard waste by dumping, 30% of them discard by using burning, 20% of them discard waste in commonplace dustbin, and the remaining 10% of them discard through burial technique.

Table 2: Comparison of Pre-Test and Post-Test Mean Knowledge Score

Knowledge regarding	Pre- test score (N=50)		Post- test score (N=50)		Paired t-test
	Mean	S.D	Mean	S.D	
Introduction	1.6	0.6	2.3	0.7	t = 8.12 p=0.05***
Classification	2.4	1.2	3.6	1.8	t = 11.09 p=0.05***
Environmental effect	1.4	0.9	2.2	0.9	t = 9.26 p=0.05***
Waste disposal	1.0	0.6	1.6	0.7	t = 12.61 p=0.05***
Waste management	1.7	1.7	4.1	1.9	t = 13.17 p=0.05***

Giant at $P \leq 0.05$ **quite sizable at $P \leq 0.01$ ***very high big at $P \leq 0.001$ The table 2 depicts the contrast of pre- and post- check imply know-how rating regarding biodegradable and non-biodegradable waste among school

kids. The t value was determined to be enormously sizeable, which depicts that the faculty kids underwent video-assisted coaching had extensive boom in submit-take a look at level of knowledge and it became statistically great at $p < 0.001$.

Table 3: Comparison of Overall Knowledge Score

	Max score	Mean Knowledge Score	Mean Difference in Knowledge with 95% Confidence Interval	Percentage of knowledge gain with 95% confidence interval
Pre-test	20	8.1	10.95 (8.1 – 13.8)	57.6%
Post-test	20	13.8		(43.6% - 71.6%)

The desk 3 photos the evaluation of universal understanding score among pre-take a look at and put up-check evaluation concerning biodegradable and non-biodegradable waste management among school youngsters. On an average of 57.6% information won after imposing the

video-assisted teaching. The distinction among pre-test and post-check rating become 10.ninety five, analysed the use of share with 95% confidence c language (CI) and imply distinction with ninety five% of CI.

Table 4: Effectiveness of Video Assisted Teaching

	Pre-Test Score	Post-Test Score	Increase (Post – Pre test)	Students Paired t-Test
No.	50	50	50	t=54.25
Mean	8.1	13.8	5.7	P=0.001*** Significant
SD	5.0	6.0	1.0	

The table 4 illustrates the effectiveness of video-assisted teaching between pre-test and post-test knowledge.

In pre-check, the college youngsters had the mean score of 8.1 and in put up-test with the rating of 13.eight. The difference among the pre-test and publish-check imply score is 5.7. It confirmed that the extensive distinction between the pre-test and post-take a look at which was analysed using paired t-take a look at.

In pre-take a look at, the school youngsters had 32.4% of knowledge score concerning biodegradable and non-biodegradable waste management. on the other hand, in publish-take a look at, the faculty youngsters had eighty five.2% of expertise score regarding biodegradable and non-biodegradable waste control with an extended distinction of 52.eight% most of the college kids's know-how.

V. DISCUSSION

➤ *To Assess the Know-How Concerning Biodegradable and Non-Biodegradable Waste among College Youngsters.*

In pre-test, they have greater know-how on advent to biodegradable and non-biodegradable waste (fifty three.3%), followed by using waste disposal (50.0%), environmental effect (46.6%), and waste classification (40.0%) respectively. The much less information on waste control (28.three%), and the general percentage well-known shows 71.6% of expertise rating

The pre-check score suggests the general public of youngsters have a median percent of 38%, 28% of them have bad knowledge, 24% with appropriate know-how and 10% of them with splendid know-how concerning the biodegradable and non-biodegradable waste respectively.

➤ *To Assess the Effectiveness of Video Assisted Coaching Program on Knowledge Regarding Biodegradable and Non-Biodegradable among Faculty Kids.*

In pre-check, the faculty youngsters had the suggest rating of 8.1 and in put up-check with the rating of 13.eight. The distinction among the pre-take a look at and publish-check imply rating is 5.7. It confirmed that the giant difference between the pre-check and put up-take a look at which turned into analyzed the usage of paired t-test.

In pre-take a look at, the faculty youngsters had 43.6% of expertise rating regarding biodegradable and non-biodegradable waste. on the other hand, in submit-take a look at, the school youngsters had seventy one.6% of understanding rating regarding biodegradable and non-biodegradable waste with an improved difference of 28% some of the college kids's knowledge.

➤ *To Discover the Association between Pre-Take a Look at Degree with their Associated Demographic Variables.*

Chi square became calculated to determine the affiliation among experimental group pretest scores of understanding rating concerning biodegradable and non-biodegradable waste with demographic variables such as age, gender, class of examine, youngsters have ever disposed family waste before, the ones separate bio and non-biodegradable waste at home, approach of discarding waste and so forth.

There has been no tremendous there was no vast association ($p > 0.05$) found among the pre-take a look at scores of experimental group with decided on demographic variables.ong the school children's expertise.

✓ H1 - There can be large improvement in know-how concerning biodegradable and non-biodegradable among school children with the aid of the implementation of video-assisted teaching. In pre-check, the college kids had the suggest score of eight.1 and in post-check with the rating of 13.eight. The distinction among the pre-test and publish-test suggest score is five.7. Paired t-test price $t=54.25$ with $p=0.001$ indicated that it turned into extensive to $P \leq 0.05$.

✓ H2- -There might be a extensive association among pre-take a look at stage of knowledge regarding biodegradable and non-biodegradable amongst college kids with selected demographic variables. on this study, there was no sizeable association between the pre-test level of expertise regarding biodegradable and non-biodegradable among college youngsters with decided on demographic variables of experimental organization. So the speculation turned into ordinary.

VI. CONCLUSION

From the findings of the study concluded that, maximum of the college children had been of the age 14 years with an elevated percentage of girl children. there was massive effectiveness of video- assisted coaching on expertise regarding biodegradable and nonbiodegradable waste among college kids. there was no enormous affiliation between pretest understanding rankings of faculty children with their demographic variables (Age, gender, elegance of study, ever discard waste, segregate waste, dispose waste). The locating of the observe showed that the video-assisted coaching changed into very powerful in enhancing the extent of knowledge of faculty children concerning biodegradable and non-biodegradable waste. there was a great improvement in expertise score between pre-take a look at and publish-test 57.6% (43.6% - seventy one.6%) among school youngsters $\chi^2=20.seventy four$ with statistical importance at $p=0.00011$. therefore, video-assisted coaching has proved as a way to improve the knowledge of faculty kids regarding biodegradable and non-biodegradable waste.

REFERENCES

- [1]. Basavanthappa, B. (2007), “Nursing Research”, (2nded), New Delhi: jaypee brothers medical publishers.
- [2]. Hungler, P. & Polit, (1995), “Nursing research principles and methods”, (5thed) Philadelphia: J.B. Lippincott company.
- [3]. Mahajan, B.K. (2004), “Methods of biostatistics”, (6thed) New Delhi: Jaypee Brothers Medical Publishers.
- [4]. Dash Bijayalakshmi, “A Comprehensive Textbook Of Community Health Nursing”, page no.42-46 5. K Park, “Textbook of Park’s textbook of preventive and social medicine”. 22st edition, M/S Banarsudas Bhanot publication page no.22-25.
- [5]. S.kamalam, “Essentials in Community Health Nursing Practice”, 3rd edition, EMMES publications, page no. 304.
- [6]. K K Gulani, “Text book of Community Health Nursing (Principles & Practices) ”, 6 edition, Kumar publication house. Page no. 40.
- [7]. Dr. T. Vasundhara Tulasi & Dr.G.Gnana Prasuna, “A text book of Community Health Nursing-II”, 2nd edition , Frontline Publication page no. 291-294.
- [8]. Ilyias, M., Malik, G. Q., Ansari, M. A., Mubasher, M., Thaver, I. H., Bazmilnam, S. N. & Baig, L. A. (2003). Community Medicine & Public Health. Karachi, Time Publisher.
- [9]. Stanhope & Lancaster, S. (2004). Community Health Nursing. (6th ed). St. Louis. Mosby -Year Book Inc.
- [10]. Marry Ellen Wurzbach (2004) Community Health Education and Promotion (A Guide to Programe Design & Evaluation).