

Analysis on Unfair Use of Papers in Education Sector and Preventive Measures to Save Paper

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Abstract--- *The purpose of this study was to investigate the paper consumption level, unfair use of papers, attitudes towards the impact of paper wastage and suggesting preventive measures for sustainable development among the undergraduate and postgraduate students (N=50) from various courses at Dr. M.G.R Educational and Research Institute, Chennai. Data were collected through a Questionnaire to which all the students provided their responses. This analysis helped in collecting the information and conclusions were drawn and it's validated through the SPSS Software. In common, 90% of students reported that they like to read digitalized materials to avoid the burden of carrying or misplacing. Students were tuned in to paper reusing, sustainable development, impact of paper wastage towards environment such as deforestation, climate change, pollution etc. hence agreed that they use paper in efficient manner will support in achieving sustainability. They also understand that they're liable for the environment that they live. Significantly, they were influenced by teacher's mode in delivering lectures digitally made them to develop the habit of reading and sharing the course material digitally.*

Keywords--- *Paper Wastage, Deforestation, Sustainable Development, Environmental Awareness, Digital Materials, Efficient Use of Paper.*

I. INTRODUCTION

Paper was invented in 2nd century BC in China which is taken into account jointly of the best inventions of ancient China further as world because before its invention all the work was done on silk but it's an efficient substitute in many applications. Also it absolutely was less expensive, so it started getting importance and greater reach which continues till now. If we glimpse into history, paper was a really rare and precious commodity. Today, we cannot imagine our life without it, as paper has become a fundamental part of every one's life and its very existence is taken with no consideration. With evolution or introduction of email or webmail into an organization resulted on average in a 40% increase in paper consumption by printing the content available in the internet for the purpose of storing the resources.

II. STATEMENT OF THE PROBLEM

The unfair use of paper usage in the education sector makes a great impact to our environment. With the utilization of paper in high number led to deforestation i.e., harvesting of wood and it increased in global environmental issues like Deforestation, Climatic Change and Pollution. There's now a trend towards sustainability by incorporating various measures and awareness among the students. Deforestation is that the primary effect of our mindless use of paper. We hardly realize the wasted use of our trees - trees that give off oxygen and protect the earth from further warming but through overconsumption of paper numerous amount of trees had been cut down every

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day. To avoid this unfair consumption of papers we can adopt appropriate use of technology by replacing printed materials with digital content and by using single sided papers for rough uses etc.

III. HYPOTHESIS OF THE STUDY

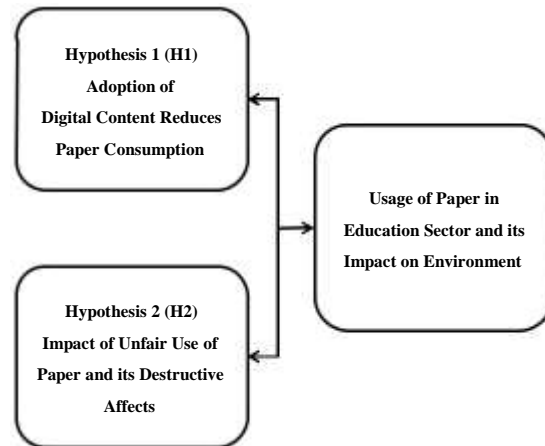


Figure 1: The Research Model

Based on the research model (Figure 1), the hypotheses are stated as follows:

- Adoption of e-learning or digital content not only reduces the paper consumption it also saves the time, flexible sharing of information, portable and editable. Most of the educational system has adopted the ICT in teaching-learning process and they conduct assignments, test online very often which in turn reduces the consumption of paper and burden of carrying the material among students. Hence the Hypothesis 1 (H1) has been framed as follows:

H1: Digital content has significant relationship with less paper consumption.

- Usage of papers by students for the purpose of rough work, scribbling without any intention, throwing papers and using it for playing etc. leads to increase in paper consumption and causes great negative impact on our environment. The survey says that there is a condition of deforestation due to numerous amounts of trees being cutting down every day and it in turn destroys the environment we live in. Therefore, we need to be cautious in using the paper more effectively to create a sustainable environment. Hence the Hypothesis 1 (H1) has been framed as follows:

H2: Overuse of paper has significant relationship with destructive effect on environment.

IV. METHODOLOGY

The methodology for this study was prepared according to the quantitative techniques and tools such as questionnaires for data collection. Data collection through questionnaire enables an objective analysis of the hypotheses under study. The statistical findings of the closed ended questionnaire in data analysis software (SPSS) used in order to quantify the results. Another rationale for adopting quantitative measures for an experimental study

used for the quantitative tools or software in the form of columns and tables would usefully supplement and extend the research analysis. Also, the analysis based on statistical data is both validated and reliable since there is no personal bias and is the evidence of an objective research analysis.

V. SAMPLING AND POPULATION

This study encompasses a sample size of 50 respondents, 30 Under Graduate students, 10 Postgraduate students and 10 from Teacher Education department from Dr. M.G.R. Educational and Research Institute. The students were grouped into two categories of male and female for the ease of data analysis. The purposive sampling technique assisted in getting a personal bias-free data because the respondents were interested to participate in the study.

VI. DATA INTERPRETATION

This study has made use of a close-ended questionnaire in order to collect data from selected category of students who had used more paper in their classroom every day. The content validity of the items of the questionnaire by using Cronbach's Alpha method.

Descriptive statistics for the independent variable technology adoption Attitude towards usage of Paper

From the data provided in Figure1 about the attitude towards usage of paper among students and its usefulness on everyday life, most students realized that the use of digital form of content helps them to reduce the amount of paper usage. Digital content allows them to share the data with ease and also reduces the burden of carrying. And it also helps them to learn at their own pace.

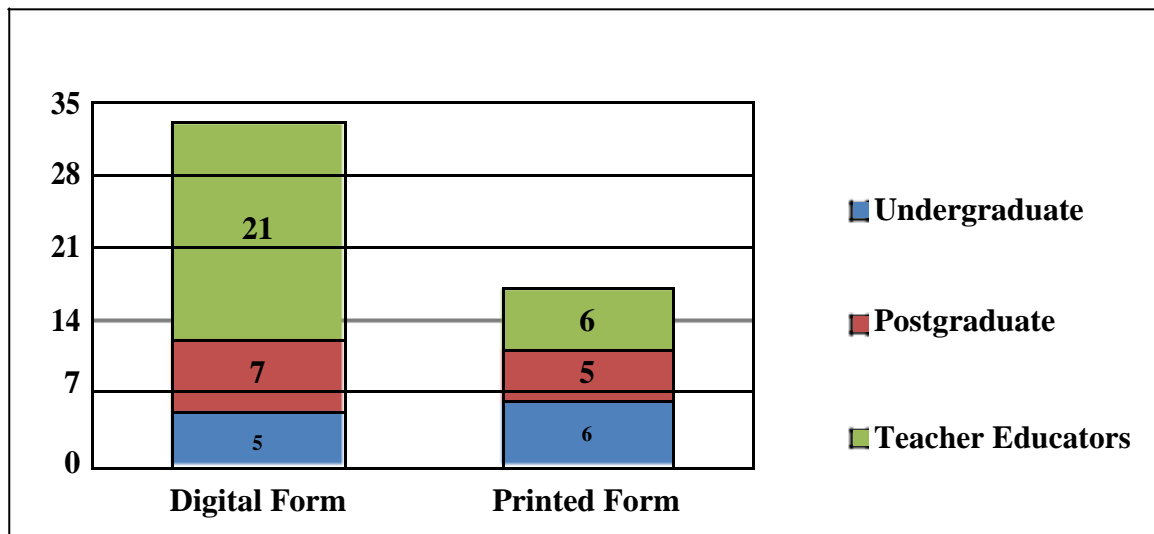
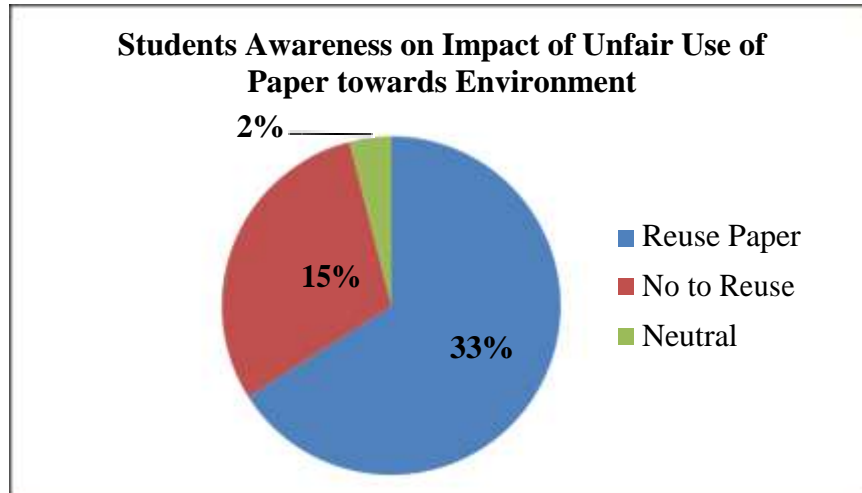


Figure 1: Attitude towards usage of Paper: Digital Vs. Printed Form

Awareness on Impact of Unfair Use of Paper towards Environment

From the data provided in Figure 2 about the awareness on impact of unfair use of paper towards environment has been found. Students realize that each human is responsible for their act on environment. They also realized the effects of overuse of paper and its causes on environment and understand the suggestive measures for marching towards sustainable environment.



VII. RESULTS

The findings of this research will give the output needed by the researchers to answer the research questions. The findings are done according to the sections in the questionnaire and some inferential analysis that includes reliability testing.

Demographic background of respondents

Factors	Frequency	Percentage (%)
Gender		
Male	11	22
Female	39	78
Race		
Indian	48	96
Others	2	4
Course Level		
Undergraduate	40	80
Postgraduate	10	20
Department		
B.Sc.(Fashion Design)	12	24
B.Sc.(Chemistry)	18	36
M.Sc.(Chemistry)	10	20
B.Ed.	10	20

Attitude towards usage of paper and ability in using E-content

High	36	72
Medium	11	22
Low	3	6

Awareness on Impact of overuse of Paper and Sustainability

Excellent	23	46
Good	14	28
Average	13	26

From the overall population (n=50) based on gender, there are 39 female respondents with a percentage of 78% as compared to only 11 male respondents with 22%. Based on race, the highest frequency of respondents are Indians with a total 48(96%) followed by Others with 2 (4%). Under course level, most of the respondents from undergraduate students with 40(80%) followed by postgraduate students with 10 (20%). And based on the department, there are 12 respondents from Fashion Design department with a percentage of 24%, 18 respondents from undergraduate students of Chemistry department with 48%, 10 respondents from postgraduate students of Chemistry department with 20% and 10 from teacher educators with 20%.

VIII. SUGGESTIVE MEASURES

(1) Awareness:

- Use E-paper (through technology such as e-mail, e-books etc.)
- Uses of one-sided paper for the rough work
- Using old notebooks unused pages

(2) Use of technology likes cloud computing helps to save paper on a huge amount and result of which would decrease the consumption

IX. CONCLUSION

Use of e-paper and alternative technologies such as e-mail, cloud computing on larger scale which might decrease the consumption of paper in huge amount. The best example is electronic voting machine in India. Use of technology not only reduces the paper consumption it also reduces our time and energy.

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