

## THE ROLE OF TEACHING LEARNING MATERIALS IN ENHANCING EDUCATION IN DISTRICT SCHOOLS

Emma Wilson<sup>1</sup>, Noah Johnson<sup>2</sup>, Mia Smith<sup>3</sup>, and Liam Brown<sup>\*4</sup>

<sup>1</sup> Department of Environmental Science, University of Sydney, Australia

<sup>2</sup> School of Engineering, Stanford University, USA

<sup>3</sup> Department of Chemistry, University of Toronto, Canada

<sup>\*4</sup> Department of Environmental Science, University of Sydney, Australia

---

**KEYWORDS:** Learning Material, Ganderbal, NCF-2005, Rote Memorisation.

### ABSTRACT

National Curriculum Framework (NCF) 2005 is regarded as the guiding document for Education sector in all states of India. It has touched almost all the aspects of education at different levels with thrust upon the connection of knowledge to life outside school and beyond textbooks. The learning has been shifted away from rote memorization to clear understanding of concepts. It has proved to be a torch bearer thereby enabling teachers to develop the critical thinking ability, problem solving, reasoning power, creativity etc. among the students. In order to make students understand the underlying principles and processes of any concept, teaching learning material is very necessary. Since concepts at elementary stage are not so complex and can be understood with the help of easily approachable teaching learning materials. So, researcher felt tempted to carry out study on the usage of teaching learning material by different subject teachers in Schools of District Ganderbal. The study has been carried out through self-developed check list/questionnaire with a sample size of 100 teachers of the district.

### INTRODUCTION

National Curriculum Framework (NCF-2005) prepared by the National Council of Educational Research and Trainings (NCERT), New Delhi aims at decentralization of the existing curriculum for its specificity to the local context. It aims at building a system and schools that are child-friendly and inclusive, innovative pedagogy, flexible assessment methods, elimination of gender and caste bias. Displaying flexibility in response to new situations and willingness to unlearn and relearn apart from developing aesthetic skills are among the guiding principles of the document. Consequently textbooks, syllabus, pedagogic practices and assessment procedures were designed by different states of India based on these guidelines embedded in the NCF-2005.

One of the aims or goals of NCF-2005 is to make learning an exciting experience by adopting constructivist approach in teaching-learning processes and to move away from the textbooks and four walls of classroom. This directs the attention towards key aspect of constructivism i.e availability of diverse forms of teaching-learning materials (TLMs) to support teachers during pedagogic activities. Teaching learning materials (TLM) are tools used by teachers to help students to learn concepts with ease and efficiency. TLMs have been in existence in our educational system since ancient times, (Lal, 2011). The role of TLMs in the classroom is to make teaching and learning process real, practical and fun – oriented. TLMs are used to illustrate or reinforce a skill, fact or idea, bring novelty and freshness in classroom teaching, relieve students from anxiety, fear and boredom, provide a range of learning experiences from direct to indirect, thereby making teaching learning effective. It also helps in longer retention of information, facilitate in concept formation, bring about behavioural and attitudinal change among students and achieve the learning outcomes. Therefore, use of TLMs in classroom teaching is an essential aspect upon which teachers should focus attention.

Learning takes place when the environment is exciting and active. Making and using teaching and learning materials made from household waste/discarded items or from materials readily available in our immediate surroundings and natural environments like, bits of paper, cardboard, thermocole, scissors, glue, old newspapers, magazines, metal, wood, plastic, rubber, clay, plaster of paris (POP) etc. has been found out to be effective. It is an achievement for a teacher if he/she brings a situation to use teaching material and students come forward with new ideas to create the next one. Wider use of low-cost teaching aids specifically not only boost creativity and involvement, but also serves to keep our immediate environments clean.

### REVIEW OF LITERATURE

Availability of literature review in this area sums when the needs are fully satisfied, children feel comfortable and encouraged. Understanding rather than rote learning takes place. When teachers do not use the resources, students only master concepts without in-depth understanding. With the use of learning material, children relate what they learn with the real life. Teaching learning materials (TLM) enable children to open up their mind, explore their

creativity as well as thinking. Montessori comments that the use of concrete teaching learning material assists in the development of five senses of children and results in learning enhancement.

Dewey (1959) reports learning as a continuing reconstruction of experience and so ought to be both active and constructive. Such system of education develops social contacts through a joint activity within which people consciously refer to materials, tools, ideas, capacities, and applications of fellow teachers and colleagues. He further laid emphasis on interaction and on designing a curriculum to reflect the circumstances children face as members of a community living in the modern world. He is in favour of fostering democracy, independence and real experiences in and outside classroom.

Fukkink and Lont (2007) in a meta-analysis study found that specialized training does in fact improve the teacher competencies including their attitudes, knowledge and skills.

Rich and Drummond (2006) opine that first hand learning experiences help in fuelling children's imagination and quench their thirst for understanding. This type of learning occurs only when children engage in activities which matter them most.

Smith, Cowie and Blades (2003) express that the responsibility of adults is to provide rich environments to children where they are able to explore, touch, manipulate and experiment with different materials and ask questions, make hypothesis and form new concepts.

## OBJECTIVES

The present study is designed to achieve the following objectives:

- To study the availability of teaching learning material in schools.
- To evaluate the involvement of teachers in preparation of teaching learning material.
- To assess the use of teaching learning material by teachers in pedagogical transactions.

## HYPOTHESIS

It is hypothesised that teaching learning material is not used efficiently in the schools by teachers in District Ganderbal.

## METHODOLOGY

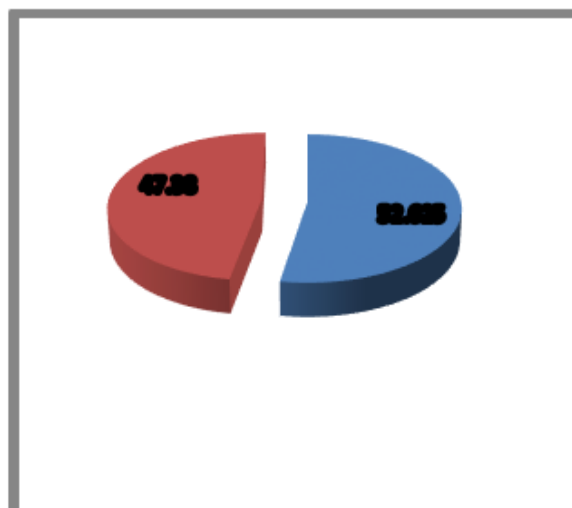
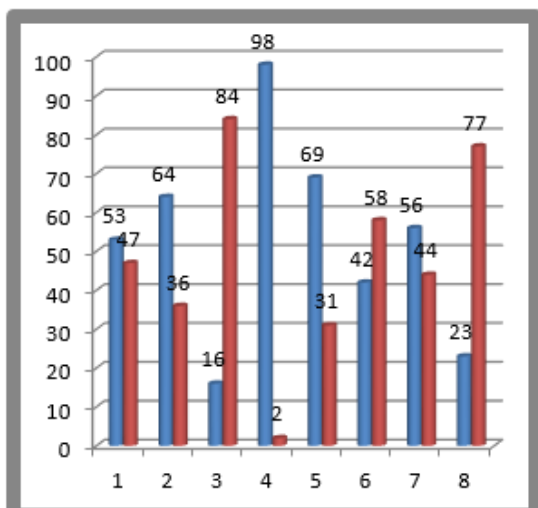
Descriptive survey method was used to collect data regarding the use of teaching learning material by elementary school teachers during classroom transactions. The study was conducted on the 100 teachers of government schools in Ganderbal district of J&K. Random sampling technique was involved for the selection of the sample. The researcher developed 25 statements questionnaire which was then divided under three headings, viz, availability, involvement and usage. The tool devised was distributed among 137 teachers but only 113 teachers responded out of which 13 tools were found irrelevant. The tool helped to collect the information in accordance to the demand of the study. The data, thus collected, is analysed and interpreted using statistical techniques.

### *Data Analysis and Interpretation*

The aim of the study is to explore the accessibility, level of involvement of teachers in preparation of learning material, to assess the utility of same during classroom transactions and the behavioural changes in students while carrying out classroom processes with the help of TLM.

**TABLE 1 : Availability of TLM in Government Schools of Ganderbal (N=100)**

S.No.	Statement	Agree	Disagree
1	<i>TLM for every subject is available in my school</i>	53	47
2	<i>We use readymade TLM to teach different subjects</i>	64	36
3	<i>Teachers are empowered to purchase personally</i>	16	84
4	<i>Learning Outcomes document is available as reference in our school</i>	98	2
5	<i>Science Kit Is available in our school</i>	69	31
6	<i>Mathematics Kit is available in our school</i>	42	58
7	<i>Raw material for TLM is easily available in local market</i>	56	44
8	<i>Efforts on improvising and upgrading of TLM are made</i>	23	77
	<i>Availability of TLM in schools</i>	<b>52.63</b>	<b>47.38</b>



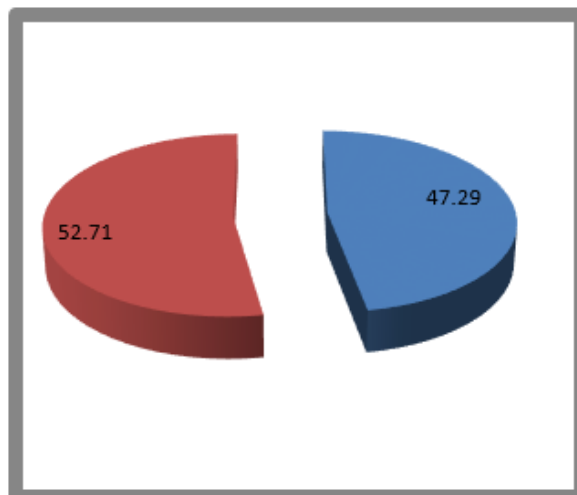
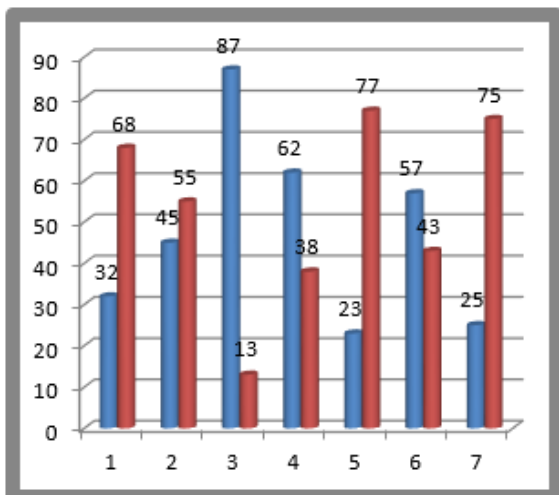
**Bar Chart - Availability of TLM Pie Chart - Availability of TLM**

Table1 depicts that the 53% respondents agreed regarding availability of teaching learning material in schools while 47% respondents responded in favour of non-availability of the same. 64% respondents agreed on usage of readymade material for carrying out pedagogical processes in schools, on the other hand 36% respondent teachers disagreed the statement. In case of purchasing of teaching learning material personally 16% teachers responded in positive whereas 84% have not responded in this case. 98% responded for the availability of learning outcomes document while 2% respondents disagreed the statement. In case of availability of science kits in schools 69% teachers agreed and 31% teachers disagreed the statement. 42% school teachers agreed regarding the availability of mathematics kit in schools, whereas 58% teachers reported about the non-availability of any kit of such type. In case of availability of raw material for preparation teaching learning material 56% respondent teachers agreed and 44% teachers disagreed. 23% respondents teachers reported to make efforts to improvise and upgrade teaching learning material and 77% teachers are not in favour of the statement.

**TABLE 2 : Teacher Involvement in Preparation of TLM in Ganderbal (N=100)**

S.No.	Statement	Agree	Disagree
1	Teachers get personally involved in preparation of TLM	32	68
2	Teachers get enough time to prepare TLM	45	55
3	Generally , teachers face problems in preparation of TLM	87	13
4	Workshops on preparation of TLM have been attended by teachers	62	38
5	TLM development training has been imparted to teachers	23	77
6	Teachers get satisfaction after the preparation of TLM	57	43
7	Teachers involve students in preparation of TLM	25	75
	<b>Preparation of TLM</b>	<b>47.29</b>	<b>52.71</b>

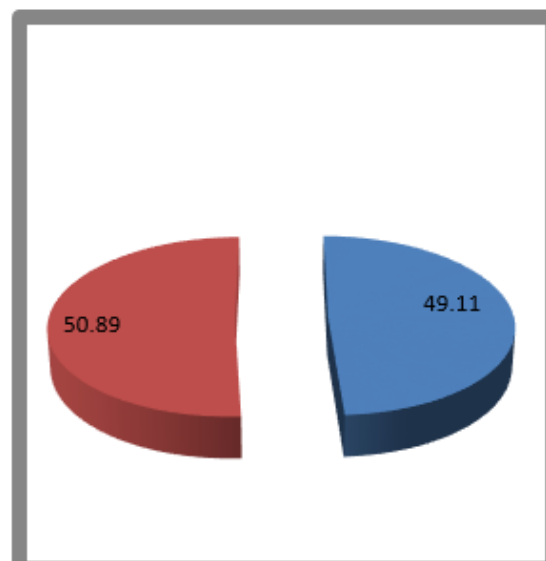
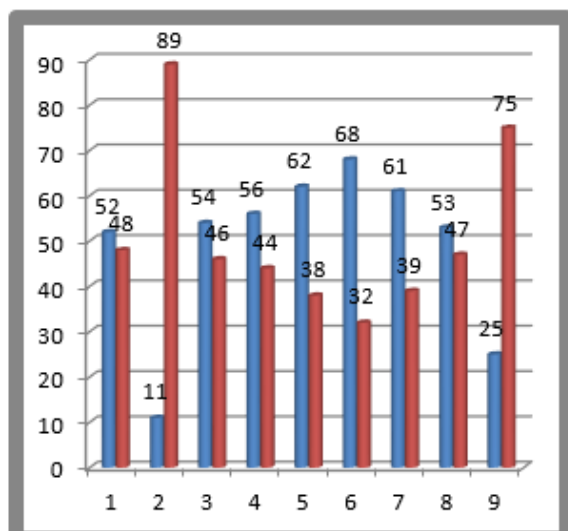
Table 2 , regarding preparation of TLM, shows that 32% teachers involve themselves in preparation of teaching learning material while 68% teachers do not take part in preparation of teaching learning material. 45% teachers get enough time for preparation of teaching learning material while on the other hand 55% teachers do not find enough time to carry out the activity.



**Bar Chart on Preparation of TLM Pie Chart on Preparation of TLM**

87% teachers opined problem facing during material preparation but 13% teachers don't face problems of any kind in preparation of teaching learning material. 62 %teachers have attended the workshops for preparation of teaching learning material whereas 38% respondent teachers have not attended any workshop of such kind. Regarding the training of preparation of teaching learning material 23% teachers agreed to have attended extra training for making teaching learning material while as 77% teachers have negated the statement. 57% teachers revealed satisfaction after preparation of teaching learning material whereas 43% teachers do not feel satisfied after preparation of such material. 25% teachers out of the sample involve students in preparation of teaching learning material whereas 75% teachers of the same sample do not involve students in preparation of teaching learning material.

Table-3 is regarding usage of Teaching Learning Material in schools of Ganderbal district. It is evident from the table that 52% respondent teachers think that teaching learning material helps to handle the students, whereas 48% teachers are of opposite opinion. Only 11% teachers say that TLM is not useful for the motivation of students towards lessons for every subject as compared to 89% teachers who are in favour of its usage. 54% teachers agreed that the use of teaching learning material demands extra time to plan a lesson, whereas 46 % teachers disagreed the statement. 56% teachers said that use of teaching learning material generates the interest among the students in teaching process, whereas 44% teachers believed that the use of teaching learning material does not generate the interest of any kind among students. Regarding the effectiveness of teaching through teaching material 62% respondent teachers believed that it make their teaching effective whereas 38% believed that use of teaching learning material does not make their teaching effective. 68% teachers believed that use of teaching learning material helps the teachers to bring clarity in concepts; on the other hand 32% teachers believed that teaching learning material does not help in clarification of concepts. 61% of respondent teachers think that the use of teaching learning material brings about change in the atmosphere of the class room whereas 39% of teachers think that there is no change in the atmosphere of the classroom. 53% teachers believe that use of teaching learning material helps in creation and strengthening of teacher-student relationship while as 47% teachers believed that use of teaching learning material has no such role. 25% teachers are of the views that the use of teaching learning material saves time to cover the different aspects of topic which they utilise in other activities while as 75% teachers said that the use of teaching learning material does not help in saving time for other activities.



*Bar Chart on Usage of TLM Pie Chart on Usage of TLM*

**TABLE 3: Usage of TLM in Schools of Ganderbal**

(N=100)

S.No	Statement	Agree	Disagree
1	TLM is helpful in handling the class	52	48
2	TLM is useful for motivation of students towards lessons in every subject	89	11
3	TLM demands extra time to plan lesson	54	46
4	TLM generates the interest among the students	56	44
5	TLM makes teaching learning process effective	62	38
6	TLM is useful for concept clearance	68	32
7	TLM usage brings change in classroom atmosphere	61	39
8	TLM helps to create and strengthen the bond between teacher and students	53	47
9	TLM usage helps to save time to cover the topic	25	75
	Average	49.11	50.89

## CONCLUSIONS

The above interpreted data can be concluded under the following three headings:

### 1. The Availability Teaching Material In Schools Of Ganderbal District In J&K

- Fifty three percent schools of Ganderbal district in J&K have teaching learning material for carrying out pedagogical processes.
- Sixty four percent schools have readymade teaching learning material available for different subjects.
- Only sixteen percent schools are empowered to purchase teaching learning material of their own.
- Ninety eight percent schools have learning out comes document available as ready reference.
- Sixty nine percent schools have science kits while forty two percent schools have mathematics kit.
- Fifty six percent schools have easy access to raw material for preparation of teaching learning material.
- Only twenty three percent schools make efforts to improvise available teaching learning material.

Under this segment there is need to work upon and devise strategies regarding statement no 3 and 8 wherein level of satisfaction is alarmingly poor. In statement no 1,6 and 7 the level of satisfaction is fair while as statement no 2 and 5 show somewhat high level of satisfaction. As far as statement no 4 is concerned it shows the highest satisfaction level.

### 2. Involvement Of Teachers In Preparation Of Teaching Learning Material In Ganderbal District Of J&K

- Thirty two percent teachers involve themselves in preparation of teaching learning material.

- Forty five percent teachers find enough time for preparation of low teaching learning material.
- Eighty seven percent teachers face problems while preparing teaching learning material.
- Sixty two percent teachers attended the workshops for preparing teaching learning material.
- Twenty three percent teachers have undergone training for preparation of teaching learning material.
- Fifty seven percent teachers feel sense of satisfaction after preparation of teaching learning material.
- Twenty five percent teachers involve students in preparation of teaching learning material.

It was found that there is below average involvement of teachers in preparation of TLM for different subjects. Involvement of students in preparation of teaching learning material is very less; below average teachers spend time on preparation; there are so many problems in preparation; above average teachers have attended the workshops conducted by their respective department but few teachers had got extra training for preparation of teaching learning material. So there is need to devise strategies and proper planning to overcome the negligence of any kind under this heading of research instrument.

### **3. The Use Of Teaching Learning Material By School Teachers In Pedagogical Processes**

- Fifty two percent respondents think that teaching learning material helps to handle the class effectively.
- Eighty nine percent respondents think that motivation towards the topic is created through the usage of teaching learning material.
- Fifty four percent teachers agreed that the use of teaching learning material demands extra time to plan a lesson.
- Fifty six percent teachers are of the opinion that interest is generated among students by the usage of teaching learning material.
- Sixty two percent teachers believe that teaching learning material makes their teaching effective.
- Sixty eight percentage teachers believe that use of teaching learning material help the teachers to clear concepts.
- Sixty one percentage teachers think that the use of teaching learning material brings positive change in the atmosphere of the class room.
- Fifty three percent teachers believe that use of teaching learning material helps in creation and strengthening of bond between teacher and students.
- Twenty five percentage teachers are of the views that the use of teaching learning material saves time which they utilize in other activities.

It was concluded that there is below average usage of teaching learning material by the teachers in schools of Ganderbal district. The material is not used for every topic by teachers; demands extra time to plan a lesson and are regarded as time consuming activity.

## **SUGGESTIONS AND RECOMMENDATIONS**

- ❖ The present study recommends that the availability of teaching learning material should be increased to enhance the learning levels of students.
- ❖ There is need to increase the involvement of teachers in preparation of teaching learning material.
- ❖ Age appropriate involvement of students in preparation of teaching learning material should be increased for the development of critical thinking and scientific temper.
- ❖ There is a need to motivate the teachers for proper use of teaching learning material.
- ❖ Head of the institutions need to ensure the teachers use appropriate teaching learning material during their teaching learning process,
- ❖ Need of timely and random monitoring mechanism by the Teaching Faculty of DIET Ganderbal, including supporting teaching staff to ensure use of teaching learning material at all levels in all subjects.
- ❖ On-the-job training in this area should be devised by DIET Ganderbal to reduce loss of time.
- ❖ Pooling of resources available, both in terms of human resource and material resource, in the district should be carried out at administrative level to ensure equity in education.
- ❖ Study needs to be carried out in other districts of the state to bring into limelight the real picture of teaching learning material as per NCF 2005.

## **LIMITATIONS**

Every research carried out has its own limitations. The study was limited to 100 teachers of district Ganderbal only. Due to paucity of time more schools from each zone could not be covered evenly. The study could have been conducted at primary level, elementary level and secondary level separately. Also private undertaking schools have been ignored in the study. So, comparative study of private and government schools could be undertaken for future research as there is ample scope in this area.

**ETHICAL CONSIDERATIONS**

During data collection the respondent teachers were ensured that their identity would not be disclosed at any level. The data collected from them is only for research purposes and would affect none at any level except an effort to improve pedagogical procedures in the schools of district Ganderbal.

**REFERENCES**

1. Dewey, J (1959) “*My Pedagogic Creed. In M. S. Dorkin (ed.) Dewey on Education*”
2. Fukkink, R G, Lont, A(2007) “*Does Training Matter? A Meta-analysis and Review of Caregiver Training Studies*” Early Childhood Research Quarterly.
3. IGNOU (2000) “*Educational Technology: State of the Art*” New Delhi:IGNOU
4. .Lal, H (2011) “*Manual of Low Cost Technological Aids*” Faridabad: Sai Publications.
5. National Curriculum Framework 2005
6. Rich, D and Drummond. J (2006) “*Towards a Curriculum that Matters to Children*” Paper presented at the European Early Childhood Education Research Association’s 16th Annual Conference, *Democracy and culture in early childhood education*, Reykjavik, Iceland.
7. Smith, P, Cowie, H and Blades, M (2003) “*Understanding Children’s Development*” (4th ed.). UK: BlackwellPublishing.

**ANNEXURE**

***Questionnaire/ Check list Regarding Teaching Learning Material in District Ganderbal***

S.No.	Statement	Agree	Disagree
1	TLM for every subject is available in my school		
2	We use readymade TLM to teach different subjects		
3	Teachers are empowered to purchase personally		
4	Learning Outcomes document is available as reference in our school		
5	Science Kit Is available in our school		
6	Mathematics Kit is available in our school		
7	Raw material for TLM is easily available in local market		
8	Efforts on improvising and upgrading of TLM are made		
9	Teachers get personally involved in preparation of TLM		
10	Teachers get enough time to prepare TLM		
11	Generally , teachers face problems in preparation of TLM		
12	Workshops on preparation of TLM have been attended by teachers		
13	TLM development training has been imparted to teachers		
14	Teachers get satisfaction after the preparation of TLM		
15	Teachers involve students in preparation of TLM		
16	TLM is helpful in handling the class		
17	TLM is useful for motivation of students towards lessons		
18	TLM demands extra time to plan lesson		
19	TLM generates the interest among the students		

20	TLM makes teaching learning process effective		
21	TLM is useful for concept clearance		
22	TLM usage brings change in classroom		
23	TLM helps to create friendly attitude with students		
24	TLM usage helps to save time to cover the topic		