

Availability of Teaching-Learning Material and Students' Attitude towards Their Classroom Application

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Abstract

Students learn their best when they themselves are the virtual performers of the classroom experiences. Teaching-Learning Material (TLM) used by the teachers in classroom environment enriches the students with such opportunity. The intention of the present descriptive study is to reveal the existing status of TLM in terms of availability in the provincialized as well as private secondary schools of Kamrup District and the attitude of the students towards the classroom use of TLM. In order to constitute the school sample of the study 10 provincialized and 7 private management schools were selected by adopting stratified random sampling technique. Again by adopting simple or unrestricted random sampling technique 150 students from provincialized and 110 students from private management schools were selected as student participants of the study. Self-structured questionnaire and information schedule had been administered for collecting the needed data. Data analysis revealed that both provincialized and private management schools are well equipped with the conventional type of TLM. The status of the private schools seemed to be better in comparison to the provincialized schools. The study had also disclosed that there exists no significant difference between the provincialized and private school students' attitude towards using TLM in classroom situation. Implications drawn from this study suggest that adequate facilities of teaching-learning materials should be made available in the schools and orientation program meant for the teachers should be organized at regular interval on the themes like preparation of TLM, presentation of TLM, improvisation of TLM etc.

Keywords: Availability, teaching-learning material, attitude, application.

INTRODUCTION

Teaching-Learning Material (TLM) including Information and Communication Technology (ICT) are the subject-matter related devices or facilities that are applied by the teacher to transmit knowledge and understanding in a more effective way while delivering a lesson. Teaching aids, instructional material, audio-visual aids are some phrases used to connote Teaching-Learning Material (TLM). Students find audio-visual session more interesting and lively since it relieves them from the conventional teaching-learning method which is mostly oral dominated. Learning becomes productive when the students get the opportunity

to have direct / real experience or substitute for it that grant the opportunity to see, hear and touch. Hence getting involved more than one sensory channel students receive meaningful classroom experiences that lead to retention of learning experiences. "Learning becomes effective when students are actively involved in the process. To the extent his different senses are related, his learning becomes successful to that extent. For using various senses in the teaching-learning process, different materials are utilized in the classroom. The learning experiences are thus made quite relevant, meaningful and effective. That is why, the materials are also called 'multi-sensory materials' 'multimedia' or

‘instructional aids’ or ‘instructional materials’” (Mohanty, 2007, p. 261)

A classroom boasting with modern concept and outlook expects the teacher to perform the role as a motivator and facilitator of learning. Teaching-Learning Materials (TLMs) are the powerful factors of motivating the students along with abundant facilities provided by Information and Communication Technology (ICT) to grasp the concept in a stress-free manner. “Audio-visual aids match with inner urges, instincts, basic drives and motives of the students and thus prove a potent motivating force for energizing learners to learn effectively” (Mangal, 2001, p.157). Considering this basis a study on the existing facilities of TLM including ICT equipment in the secondary schools of Kamrup District of Assam and students’ attitude towards their classroom use bears resonance worth. Accordingly the study has been guided by the following objectives and hypothesis to be tested:

Objective 1: To find out the existing provision teaching-learning material (TLM) in the provincialized secondary schools of Kamrup District.

Objective 2: To find out the existing provision teaching-learning material (TLM) in the private secondary schools of Kamrup District.

Objective 3: To study the attitude of the students towards the use of teaching-learning material (TLM) in classroom situation in relation to the management of their school (provincialized / private).

Ho1: There exists no significant difference between the provincialized and private school students’ attitude towards the use of teaching-learning material (TLM) in classroom situation.

The study focused on two types of schools i.e. provincialized and private management secondary school. Provincialized secondary schools are established by the public and subsequently undertaken by the state Government. The Government is not directly responsible for maintenance and management of these schools, but provides maintenance grants. The private management secondary schools are run and funded by private individuals, private organization and religious groups. The state or local Government is not responsible for their maintenance. The investigator had delimited the

study by preparing a list consisting only 16 TLMs and ICT equipment. Again the base year of the study had been taken from January 2019 to March 2020 (15 months)

Literature Review

Usage of TLM and ICT related TLM in classroom situation and various other related aspects have been perceived as the referenced field of research contributing a lot towards the improvisation of teaching-learning process. A range of studies have been carried out by the researchers from time to time on the existing facility of TLM and ICT equipment and utilization of the same by the concerned teachers. Mishra (2013) conducted a survey study in the secondary schools of Mandleshwar, Khargone M.P. The study was intended to reveal the view points of teachers and students of Government and private schools regarding the availability and usage of teaching- learning materials by the teachers in Science. The result of the study had revealed that low cost TLM of Science like Science Picture, Books, Charts, and Diagrams are used by the teachers of Government and private schools. 65% students of Government schools and 70% students of private schools had accounted that their teachers regularly use teaching-learning materials of Science during Science classes. In this direction a study had also been conducted by Ashaver, Igyuve (2013) in College of Education in Benne State- Nigeria and disclosed that there exists sufficient collection of teaching-learning materials in the colleges, however the lecturers rarely use TLM in classroom teaching. Chalk-board is the TLM which is commonly used by the lecturers. Similar study had been followed by Farhi (2013) at Mahamed Kheider University of Biskra. The findings of the study revealed that the University of Biskra suffers from dearth of audio-visual aids. Most of the students reported that they never or rarely use audio-visual aids. But so far as the benefits of using audio-visual aids are concerned, students had recognized the effectiveness of teaching aids and teachers also valued the role of these audio-visual aids in enhancing students’ motivation and participation. In the study conducted by Okobia (2011) also it was found that in the junior secondary schools in Edo State (Nigeria), most of the teachers do not use TLM to teach Social Studies. Students remain passive participants in

the learning process due to the lack of requisite scope. An experimental study had been conducted by Rad and Saniei (2016) in Tehran and established that projected visuals facilitate students to learn and recall collocations more easily.

To show the effect of audio-visual aids on students' achievement, Elisabeth, Hesbon and Amos (2020) conducted a descriptive design study in the classrooms of public secondary schools in Nyarugenge District, Rwanda and revealed that students' academic performances get better due to the use of teaching aids. Shukla and Kaur (2019) undertook a study in Dehradun and proved that the students (experimental group) taught by using multimedia instruction resulted in better learning outcome, performed better in achievement test and had better retention as well than their colleagues (control group) who were taught by using conventional teaching method. Olayinka (2016) also found that in Ekiti State, Nigeria, the secondary school students who were taught through instructional materials performed better than those taught without this facility.

A great number of studies have been followed to study the attitude of the teachers and students towards the use of TLM in classroom situation. In this direction Shabiralyani, Hasan, Hamid and Iqbal (2015) conducted a study in Punjab, Pakistan and revealed that visual aids as a teaching method stimulates thinking and improves learning environment. Efficient use of visual aids surrogate monotonous learning environment. Students also find visual aids session useful. Sanchez and Guan Lin (2012) conducted a study in Salamanca (Spain) to access the in-service teachers' attitude towards ICT inclusion in the curriculum. The result of the study showed that participants have positive attitude towards the use of ICT as teaching tools. 71% of the teachers agreed with the incorporation of digital smart boards, computers and projectors inside the classrooms.

Studies have pointed out that there are certain obstacles that hinder the path of successful integration of TLM and ICT in teaching-learning process. Markandeya (2016) followed a study in the primary schools in Solapur District (Maharashtra) and revealed that the teachers are not skillful to prepare the TLMs. Lack of required materials to prepare the TLMs is also a notable problem. In the study conducted by

Kaswa (2015) in Tanzania, it has been found that lack of adequate financial grant from the Government is the principal obstruction in the field of effective incorporation of TLM in instruction.

The act reviewing the related literature of the concerned subject matter leads to the conclusion that almost every facets of TLM have been studied worldwide. Obviously the findings of the studies have contributed to the existing body of knowledge in their own way. Following the same path the attempt has been made by the present study to adjoin a small amount of contribution. The attempt of the present study has exposed the reality in terms of existing facility of TLM and ICT equipment in the provincialized and private management secondary schools of Kamrup District and how much credence and importance does the respective authority impose on this crucial matter. Effort has also been made to divulge of the students in this regard as they are the major stakeholders in this field. Results of the present study will definitely guide the line of action towards renovating the needful.

Methodology

In the words of Koul (2013, p.104) "Descriptive research studies are designed to obtain pertinent and precise information concerning the current status of phenomena and, whenever possible, to draw valid general conclusions from the facts discovered". Best and Khan (1996, p.120) writes that, "Descriptive research methods are non experimental, for they deal with the relationship among non manipulated variables". The focus of the present study was to disclose the existing status of TLM in terms of availability and secondary school students' attitude towards the classroom usage of TLM. Hence descriptive method (school survey) had been adopted as it goes well with the nature of the study. The study covered up the sample schools belonging to Kamrup District of Assam (India). Management of the schools i.e. provincialized and private had been identified as the variable of the study.

Participants

The nature of the present study itself insists to collect data from two types of school i.e. provincialized and private. Consequently stratified random sampling technique (lottery

method) had been adopted by the investigator. In the words of Sidhu (1990, p.262), "Stratified random sampling is a refinement of simple random sampling since, in addition to randomness, stratification introduces a secondary element of control as a means of increasing precision and representativeness". Considering the base 17 high schools (10 provincialized and 7 private) of Kamrup District had been selected for the study. Again, the investigator had taken up simple or unrestricted random sampling technique for selecting the student sample. "In simple or unrestricted random sampling, each unit of the population is given an equal chance of being selected", (Yadav and Chauhan, 2014 p.202) Accordingly a total number of 150 students studying in class IX had been selected from the provincialized high schools and another 110 students studying in the same standard had been selected from the private high schools of Kamrup District to make up the participants.

Tools

"Schedule is the name given to a list of questions to which responses are obtained from the respondent by the investigator in a face to face contact", (Sidhu, 1990, p.235). "The questionnaire may be regarded as a form of interview on paper", (Sharma, 2013, p.355). Focusing on the intention of the study self-structured information schedule pertaining to the objective 1 and 2 had been administered. Self-structured questionnaire (attitude scale consisting 3 ratings) was developed to serve the purpose of the objective 3. Accordingly the scoring pattern had been fixed as 2 for strongly agree, 1 for agree and 0 for disagree. Considering the matter of standardization of the tools content validity of the tools had been checked. Moreover reliability co-efficient (test retest method) of the attitude scale had been found to be 0.88.

Statistical techniques used

For analyzing the data pertaining to objective 1 and 2 the investigator had depended upon descriptive statistical analysis and for objective 3 inferential statistical analyses had been found to be appropriate. "Descriptive statistics is that branch of statistics, which deals with the descriptions of the obtained data. It includes classification, tabulation, graphical representation etc.", (Saha, 2012, p.9). "Inferential statistics help in generalizing the results of a sample to the entire population from which the sample is drawn", (Saha, 2012, p.10). Since the objectives 1 and 2 had been stated with an intention to explore the present status of the concerned schools descriptive statistical analysis such as percentages and graphical representation served the purpose. On the contrary, 'Z' test had been computed for analyzing the data pertaining to objective 2 for the reason that it claimed to illustrate the significant difference between the provincialized and private school students mean scores.

Data analysis and results

The investigator had visited the participant schools in order to accumulate the needed data. After introducing self the rationale that has reinforced the present study had been made clear to the head of the institution in a brief manner. Seeking cooperation in a polite manner the investigator had filled up the information schedule with the help of the information provided by the head of the institutions. Subsequently the questionnaires had been administered to the student participants. They had also put forwarded support by filling up the questionnaires by themselves with the help of the investigator. In this way data had been gathered and later organized and tabulated to make it convenient for analysis. Data analysis of the present study has been illustrated as under-

Table 1: *Percentage of schools showing the availability and non-availability of TLM in the provincialized secondary schools of Kamrup District.*

Name of the TLM	AVAILABLE				NOT AVAILABLE	
	In Working Condition		Not in Working Condition			
	Total no. of Schools	Percentage of Schools	Total no. of Schools	Percentage of Schools	Total no. of Schools	Percentage of Schools
Black-board	10	100%	0	0%	0	0%
Chart	10	100%	0	0%	0	0%
Globe	10	100%	0	0%	0	0%
Map	10	100%	0	0%	0	0%
Model	5	50%	3	30%	2	20%
Specimen	5	50%	2	20%	3	30%
Radio	1	10%	0	0%	9	90%
CD/DVD Player	1	10%	1	10%	8	80%
Overhead Projector	0	0%	0	0%	10	100%
Computer	7	70%	2	20%	1	10%
Computer with Internet Facility	2	20%	0	0%	8	80%
LCD Projector	1	10%	0	0%	9	90%
Interactive White Board	0	0%	0	0%	10	100%
Power Point Presentation Facility	1	10%	1	10%	8	80%
Television	0	0%	0	0%	10	100%
Educational Film	3	30%	0	0%	7	70%

The above table (Table 1) shows that in 100% of the provincialized schools Black-board, Chart,

Globe and Map are available in working condition. In 50% of the schools Model and

Specimen are available in working condition. In 30% of the schools Model are available but these are not in working condition and rest 20% of the schools don't possess Model as a TLM. In 20% of the schools Specimen are available but these are not in working condition and the rest 30% of the schools don't possess Specimen. Radio is available in working condition in 10% of the schools and the rest 90% of the schools don't have Radio as a TLM. CD/DVD Player is available in working condition in 10% of the schools and in another 10% of the schools it is available but not in working condition. Rests 80% of the schools don't have CD/DVD Player as a TLM. Overhead Projector is completely unavailable in the schools. Computer is available in 70% of the schools which are in working condition and in case of 20% of the schools computers are not in working condition. Rest 10% of the schools do not have computer. In 20% of the schools Computer with Internet Facility is available and these are in good condition and the rest 80% of the schools don't have this facility. LCD Projector is available in 10% schools in working condition and rest 90% schools do not have this facility. Interactive white board is completely unavailable in 100%

of the schools. In 10% of the schools Power Point Presentation facility is available which are in good condition. Again in another 10 % of the schools power point facilities are not in working condition. Rest 80 % of the schools do not have this facility. There is no such school where Television is available. Educational Film is available in 30% of the schools which are in working condition and in case of other 70% of the schools this facility is not available.

The above data analysis leads to the interpretation that the existing status of TLM in terms of availability in the provincialized secondary schools of Kamrup District is very well only in case of traditional type of TLM such as Black-board, Chart, Globe and Map. Availability of computer is also good though it is not available in 100% of the schools. But regarding the availability of projected visual TLM and other ICT equipment the existing status of the schools seems to be unfortunate that needs serious consideration. Dearth of fund needed for purchasing the projected TLM and ICT equipment may be presumed as the issue that is responsible for the insufficiency of the said teaching aids.

Table 2: *Percentage of schools showing the availability and non-availability of TLM in the private secondary schools of Kamrup District.*

Name of the TLM	AVAILABLE				NOT AVAILABLE	
	In Working Condition		Not in Working Condition			
	Total no. of Schools	Percentage of Schools	Total no. of Schools	Percentage of Schools	Total no. of Schools	Percentage of Schools
Black-board	7	100%	0	0%	0	0%
Chart	7	100%	0	0%	0	0%
Globe	7	100%	0	0%	0	0%
Map	7	100%	0	0%	0	0%
Model	7	100%	0	0%	0	0%
Specimen	5	71.43%	1	14.28%	1	14.28%
Radio	2	28.57%	0	0%	5	71.43%

CD/DVD Player	3	42.86%	1	14.28%	3	42.86%
Overhead Projector	0	0%	0	0%	7	100%
Computer	7	100%	0	0%	0	0%
Computer with Internet Facility	4	57.14%	0	0%	3	42.86%
LCD Projector	3	42.86%	0	0%	4	57.14%
Interactive White Board	0	0%	0	0%	10	100%
Power Point Presentation Facility	4	57.14%	1	14.28%	2	28.57%
Television	4	57.14%	0	0%	3	42.86%
Educational Film	4	57.14%	0	0%	3	42.86%

The above table (Table: 2) reveals that Black-board, Chart, Globe, Map and Model are available in working condition in all the private schools. It is seen that in 71.43% of the schools Specimen is available in working condition and in 14.28% of schools it is available but not in working condition and the rest 14.28% schools don't have Specimen as TLM. Radio is available in working condition in 28.57% of the schools and it is not available in 71.43% of schools. Regarding CD/DVD Player, it is available in 42.86% of the schools which are in working condition and there are 14.28% of the schools where it is available but not in working condition. Rests 42.86% of the schools don't have CD/DVD Player as TLM. Overhead Projector and Interactive White Board are completely unavailable in the schools. In 100% of the private schools Computer is available. Computer with Internet Facility is available in 57.14% of the schools in working condition and the rest 42.86% of the schools don't have this facility. LCD Projector is available in working

condition in 42.86% of the schools and 57.14% of the schools don't possess this TLM. It is seen that in 57.14% of the schools Power Point Presentation Facility is available in working condition, in 14.28% of the schools it is available but not in working condition and rest in 28.57% of the schools this facility is not available. Both Television and Educational Films are available in working condition in 57.14% of the schools and both are unavailable in 42.86% of the schools.

Interpretation which can be derived from the above analysis leads to the conformity that the existing condition of TLM in the private management schools in terms of availability is to some extent better in comparison to the provincialized schools. Notably Computer is available in 100% of the schools. But in case of Overhead Projector and Interactive White Board a gloomy state has been disclosed by the study as these two are totally unavailable in the schools.

Table 3: 'Z' value of provincialized and private school students' attitude towards using TLM in classroom situation

Category of the students on the basis of school management	N	Mean	S.D	SE _D	C.R or Z value	Status
Provincialized school students	150	26	9.15	1.22	1.09	Ho is accepted
Private school students	110	24.67	10.15			

The above table (Table 3) reveals that the calculated Z value is 1.09. Our critical Z value is 2.58 at 1% level of confidence. Thus the calculated Z value is smaller than the critical Z value. Therefore the calculated Z value is not statistically significant at 1% level of significance. Therefore the Ho1 stating, "There exists no significant difference between the provincialized and private school students' attitude towards the use of teaching-learning material (TLM) in classroom situation" is accepted. From the above analysis it can be interpreted that the private management and provincialized school students have developed the same attitude towards the use of TLM in classroom situation.

Discussion

Teaching Learning Material (TLM) occupies a unique position in teaching-learning endeavor. Selection, preparation and usage of appropriate TLM in the classroom situation should receive massive deliberation on the part of the teacher as well as authority concern. Get blessed with the boon of TLM and ICT integrated classroom interaction students precisely grasp the subject-matter delivered by the teacher overcoming all the three domains of learning i.e. cognitive, affective and psychomotor. Studies have also established that usage of proper TLMs hold positive reflection that can be viewed in the academic achievement of the students. Elisabeth, Hesbon and Amos (2020) have established that there exists high positive correlation between the application of teaching-learning materials in classroom situation and students' academic performance in public

secondary schools in Nyarugenge District, Rwanda. Maintaining the same line of action Sukla and Kaur (2019) also established that consistent use of multimedia instruction strategy among the senior secondary level students in Dehradun results in significantly better learning outcome in comparison to the traditional lecture dominated teaching strategy that use only the conventional type of teaching aids. Positive impact on students' academic achievement naturally develop positive attitude on the part of the students towards TLM. The same can be observed in the study conducted by Farhi (2013) where the second year English student at Mahamed Kheider University of Biskra emphasized the effectiveness of teaching-learning materials that in turn reveals their positive attitude towards TLM. Prathoshni, Priya and Gayathri (2018) confirmed that the students of Saveetha Dental College (Chennai, India) have developed positive views about the visual aids. Students' positive attitude towards TLM develops with the proper utilization of the same which in turn is conditional on the issue of availability of TLM. The findings of the present study reveal that the schools of both provincialized and private management are rich in traditional type of TLM only. Likewise the status of TLM in terms of availability of Computer is also encouraging. A completely opposite state can be seen in case of Overhead Projector and Interactive White Board as these are totally unavailable in the schools of both management types. This is in line with Musingafi and Chadenanga (2014) who followed a survey study and established that in case of availability of contemporary projected media in the secondary schools in Masvingo

(Zimbabwe) urban secondary schools have some forms of contemporary projected media, but the rural secondary schools do not have most of these projected media. It seems to be contradictory to the findings of the study conducted by Omuna, Onchero, Kimutai (2016) since the study established that in the primary schools in Kericho County (Kenya) visual TLMs are available and adequate. Ashaver, Igyuve (2013) also found that, there exists sufficient collection of teaching-learning materials (TLM) in the college of Education in Benne State- Nigeria. But the lecturers hardly utilize TLM in classroom teaching. Chalk-board is the TLM which is frequently used by the lecturers.

Recommendations

Teaching-learning materials should be considered as an indispensable part of everyday's class not only in case of secondary level, but also in all stages of education starting from primary to higher education. The concerned authority irrespective of the management of the institution (Government /provincialized or private or public-private partnership) should spend maximum in this area in terms of time, money and effort. Adequate facilities of TLM, consistency in classroom usage, improvisation of TLM etc are the issues that should receive priority of consideration. Additionally teacher training program or orientation program on various aspects of TLM should be organized at least once in a year. In such programs developing ICT competency of the teachers should receive a good deal concern.

More and more research studies in this area will definitely eliminate the obstructions in the field of successful incorporation of TLM and ICT in classroom situation. Those future researchers who are interested in this field may take some initiations like-

- (1) Research studies attempting to divulge the impact of using TLM on academic achievement of different subjects in different stages of education can be followed.
- (2) Research studies on integration of Information and Communication Technology (ICT) in teaching-learning process are good enough as they definitely will satisfy the need of the time.

- (3) Studies may also be conducted to identify the perceived barriers in the field of effective integration of TLM and ICT in different stages of education.

Conclusion

The present investigation has been followed with the target to make public the extent of availability of the TLM and ICT related TLM in the provincialized and private secondary schools of Kamrup District of Assam. Furthermore the study makes an attempt to reveal students' attitude towards the use of TLM in classroom situation since they play a notable part in this meadow. The findings of the study revealed that Black-board, Chart, Map and Globe are available in good condition in all the schools irrespective of the management of the school. It is seen that 100% of the schools under private management and 70% of the provincialized schools possess Computer (in working condition). Model is available (in working condition) in 50% of the schools of both management type. Regarding Specimen 50% of the provincialized schools and 71.43% of the private management schools possess this TLM (in working condition). A poor picture can be observed in case of Radio and CD/DVD Player as only a few schools of both management types possess the same. In case of provincialized schools 20% of the schools possess Computer with Internet Facility, 10% of the schools possess LCD Projector and Power Point Facility, 30% of the schools possess Educational Film and no one school of this category possess Overhead Projector, Interactive White Board and Television. On the other hand in case of private management schools 57.14% schools can enjoy the facility of Computer with Internet Facility, Power Point Presentation Facility, Television and Educational Film whereas no school possesses Overhead Projector and Interactive White Board.

The study suffers from many limitations as it could not touch quite a lot of related aspects to offer an absolute come out to the study. Extent of utilization of TLM by the teachers, relation between TLM usage and students achievement, perceived barriers in the field of effective utilization of TLM in the classroom situation etc. are the pertinent research proposal that need urgent reporting.

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