

Study, Survey and Analysis for Media Selection

Rinal H. Doshi¹, Rajkumar A. Soni², Harshad B. Bhadka³, Bijendra Agrawal⁴, Ravindra L. Naik⁵

¹L.C. Institute of Technology, Bhandu

²C.U.Shah college of Master of Computer Application

³VJKM Institute of Computer Studies and management, Vadu

⁴Kalol Institute of Technology & Research Center

⁵Gujarat Technological University, Ahmedabad

e-mail: rinal.doshi@lcit.org¹, rajkumar.soni@lcit.org², harshad.bhadka@yahoo.com³,
bijendra.agrawal@gmail.com⁴, ravikalol@gmail.com⁵

Abstract

This paper is a literature review on practical techniques and rules using PowerPoint, animation, and video for instruction effectively. The instruction could be teaching, training, coaching, tutoring, schooling, etc. This paper must be the awareness to mentors and instructional technology staffs who support faculty members in the development of instructional media. The main objective of this paper is to identify and to select the proper technologies for enhancing a particular pedagogy or learning goal. The choosen media help to support instructor's activity.

Keywords: pedagogy, literature evaluation, instruction method, instruction media, instruction delivery system

1. Introduction

There is a wealth set of research and knowledge about how to use media for training (coaching, instruction, tutoring) successfully.

This is a short literature evaluation on practical guidelines for using technology in the classroom picked from broad variety of resources. The "correctness" or explanation of using a particular type of media element depends on its environment in an Instructional Strategy, which describes the desire learner's experience [1].

It is a personal interest for instructional technology supports staff to be aware of current research on using PowerPoint, animation, graphic, dynamic user interface component and video in an instructive site which are used to present content. As instructional technology supports trained staff of faculty how to use various software applications, they can include information on how to use the software to its best outcome and highest adaptability.

2. Media Selection

Some media formats show particular types of content better than others. Making a thoughtful decision to choose a media type which will be proved as the most appropriate for the content you are going to deliver using media successfully.

There are co-relation between 11 dimensions, we used to discriminate analysis and logistic regression analysis to determine the best sub-set of dimension.

There are three dimensions emerged:

- Set demanding and challenging task
- Deep representation skill
- Feedback and monitoring learning

Let me remind you of these three attributes – as these are the greatest differences, and these in particular, and all 11 dimensions in general, need to become critical goal posts in the professional development of our teachers.

The instruction designer generally knows these following variables [2]:

- What training points are needed?

- Who are the target audiences?
- What resources are available?
- What constraint must be considered?

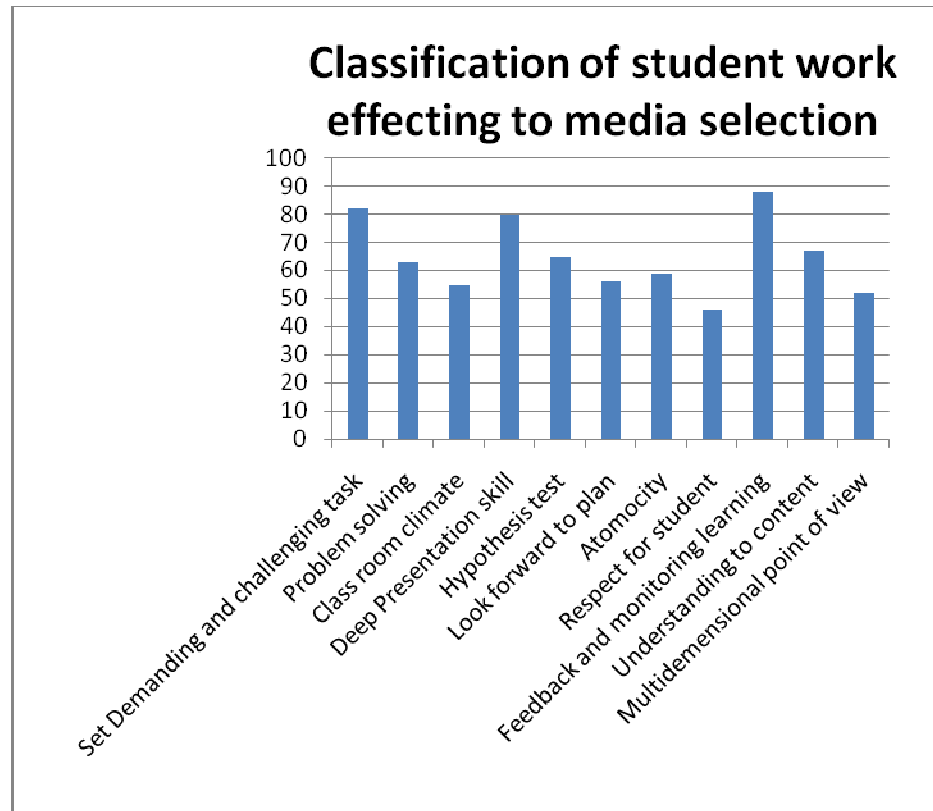


Figure 1. Statistical Analysis chart affecting to media selection.

Instructional Strategy

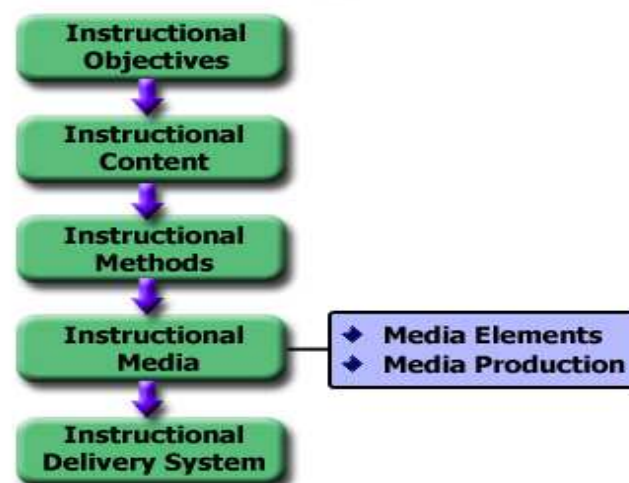


Figure 2. Instructional Strategy [1]

PowerPoint is an intermediate, a method of communicating people using visual, animation and even sound [3]. Video is useful when the content requires movement to clearly highlight point. Research has shown that instructional method is further important than instructional media.

3. PowerPoint

By using PowerPoint presentations, we can improve the value of classroom instruction in many ways and in every theme [6].



Figure 3. Sample Power Point Slides

- Most significant points can be emphasized and the presentation itself can be improved by using graphics, animations, or sounds.
- Presentation can be used to make instructions prearrangable and flexible.
- Less effort requires to plan a presentation.
- The content on a PowerPoint presentation is much easier for students to read than trying to read notes which are written on an overhead projector or chalkboard.
- Used correctly, PowerPoint can accommodate all learner's needs.
- Create tutorial, quiz or review for students.
- Word search facility is a key factor.
- Never read loudly from slide.

4. Animation



Figure 4. Sample Animation

- Animation can serve motivational plus attention getting functions.
- Most graphics or pictures can be animated to demonstrate points, teach facts or concepts.
- Large pieces of content into smaller units and provide opportunities for interaction. Ask a question after related content.
- Carefully hint the students to the information.

5. Video

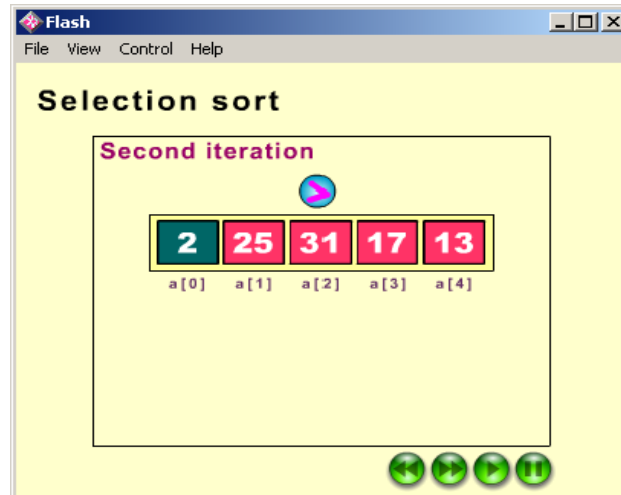


Figure 5. Sample Flash Video [12]

- Motion video, including commercial tapes, movies, and home videos, is a major component of interactive multimedia software, but computer needs special hardware and/or software to display a video [5].
- In a Video, we need more storage space.
- Video is an idle for an abstract material.
- Keep video from 4 up to 6 minutes.
- Audio is partially than video.
- Compress video so its size will reduce.
- Carefully balance the level of detail with the speed of the video
- Present all information in three shot sequences, long, medium and close up.
- Use close up shots to grab the audience's attention to explain something important.
- Show realistic motion.

6. Questionnaire

Questionnaire will include these following questions [4]:

- What do you like best about this lecture?
- In which part you got confused?
- What would you change about this lecture?
- What can you take from this lecture?
- What is the level of satisfaction of student [8]?

We make a questionnaire on teaching methodology and send it to Gandhinagar Zone College. The chart above represents the research analysis of the teaching learning methods. We observe that Lecture talk, White/black board teaching, and Overhead Projectors are good methodology for teaching. We also believe that question-answer discussion is also an interesting factor for teaching. We can get good feedback from our teaching media research. We also like to say that 79% faculties of Gandhinagar Zone College give us a good feedback suggestion of teaching methodology. We can compile that suggestion with statistical analysis and compute the chart above.

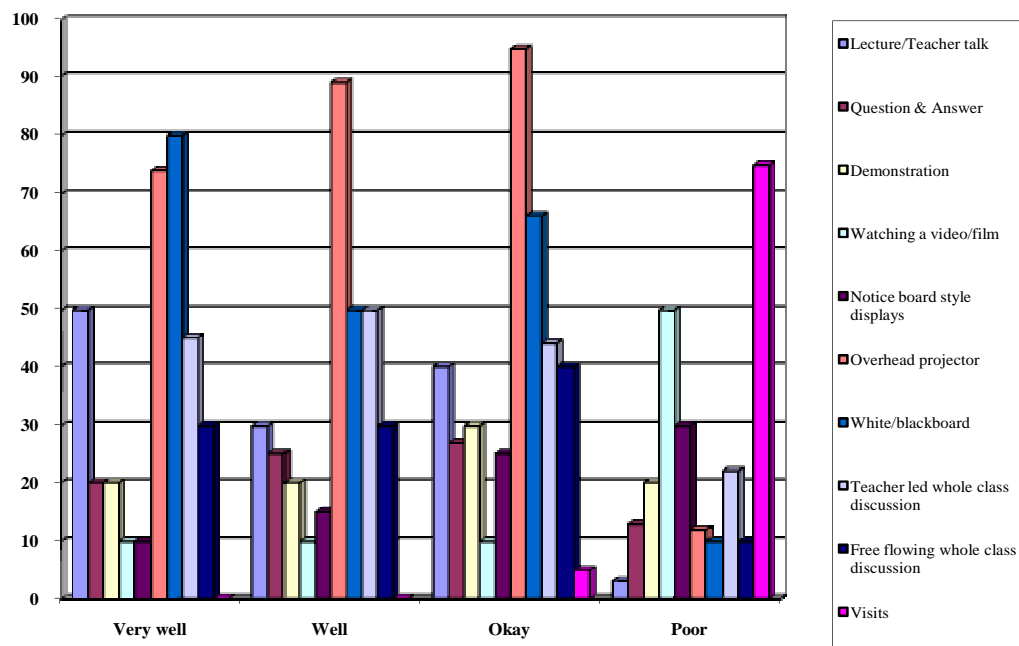


Figure 6. Research Analysis for teaching learning methods

7. Computer based Training



Figure 7. Sample visual of computer based teaching training

A computer based Training (CBT) can be dynamic way to guide students. Program starts in linear order (Study content in 1, 2, 3, ..., up to N Sequence) or student may be skip, repeat, review or branch the topic. Here, result is provided instantly.

We can review from the students of LC Institute of Technology as we can find the outcomes above. 73% students of this institute are very excited with the computer aided learning, 40% students recommend one to one teaching on every Saturday and Sunday, 35% students like to use of graphics based teaching and 20% of them like self learning before teaching with the help of internet.

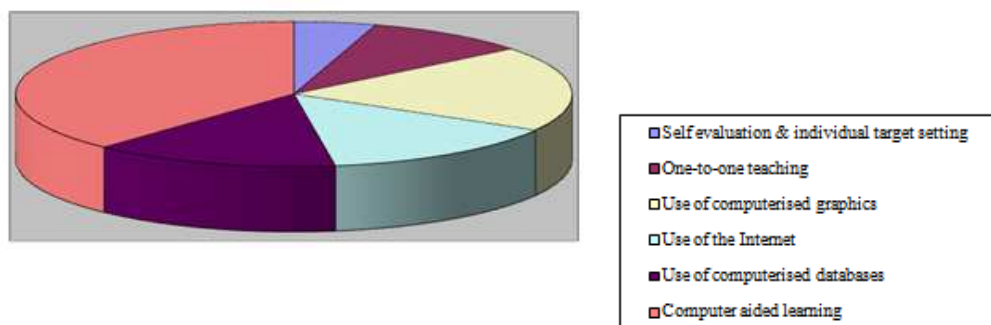


Figure 8. Research Analysis for teaching activities

9. Conclusion

Although there have been many lists of what makes an effective teacher, too few have been based on evidence from classrooms, particularly considering the effects on student learning: the learning of affective outcomes, respect and caring, and quality of achievement. It is frequently the lists have been based on simple analyses of single variable, on small numbers of teachers and on teachers who have not already been identified as expert based on a rigorous and extensive assessment process. This study commenced from an extensive review of literature and a synthesis of over half a million studies. It then led to a very detail specification of information that was gathered in classroom over many days. This information was then independently coded, using some exciting new developments in classroom observation methodology. The outcomes are clear.

Teachers do differ from others – particularly on the way they represent their classrooms, the degree of challenges that they present to students, and most critically, in the depth of processing of their students's attainment

Like proficiency in teaching, we need a deeper representation of brilliance in teachers, a greater challenge and commitment to recognize excellence, and a coherent, integrated, high level of deep understanding the expertise teacher for media selection.

Acknowledgments

We wish to thank Dr. S.M.Tanna sir, who have assisted in the portion of research. The paper is beneficial greatly from the comments of Miss Varshita Doshi, a librarian in Physical Research Laboratory, Ahmedabad. We also like to express our thanks to all writers in the references of this article, which are very helpful for this paper.

References

- [1] Available: <http://www.cognitivedesignsolutions.com/Media/MediaSelection.htm>
- [2] Wallace H. Hannum, Carol Hansen. Instructional systems development in large organizations By
- [3] PowerPoint 2010 All-in-One For Dummies By Peter Weverka
- [4] Alison Carr-Chellman. Instructional Design for Teachers: Improving Classroom Practice.
- [5] Luann K Stemler. Educational Characteristics of Multimedia: A Literature Review
- [6] <http://www.online.tusc.k12.al.us/tutorials/pptclass/pptclass.htm>
- [7] Jerrold E. Kemp, George W. Cochern. Planning for effective technical training: a guide for instructors and trainers.
- [8] Questionnaire Design: How to Plan, Structure and Write Survey Material for Effective Market Research By Ian Brace
- [9] <http://www.infovis.net/printMag.php>
- [10] Teaching Methodology for 3D Animation, Muqeen Khan
- [11] <http://www.education.auckland.ac.nz/uoa/home/about/teaching-learning/e-learning>
- [12] Data Structure through C++ by Yashwant Kanetkar, BPB Publications