

# Use of Over Head Projector for teaching and learning Fine Needle Aspiration Cytology skills to undergraduate students and their perception

Kavita U. Gowda<sup>1</sup>, Shashikala P<sup>2</sup>, Sreevidyalata G M<sup>3</sup>

<sup>1</sup>Professor, <sup>2</sup>Professor and Head, <sup>3</sup>Postgraduate.

Department of Pathology, SSIMS&RC, Davangere, Karnataka

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## Abstract :

**Introduction :** Present day teachers are reluctant to OHP teaching and some teachers even feel OHP as an outdated teaching aid. However used appropriately with a creative mind, OHP still appears to be a useful tool for teaching.

**Objective :** To make use of OHP as a skill learning tool and know the students perspective regarding the same.

**Methodology :** A technique to teach the skill of FNAC in pathology to the undergraduate students using the OHP in an innovative way was designed to make use of OHP as a skill learning and teaching tool.

**Results :** The responses of students were mostly positive.

**Conclusion :** This study tells us about improvising the use of OHP through inexpensive materials in an innovative and creative way.

## Introduction :

John Dewey stated once that if we teach today as we taught yesterday, we rob our children of tomorrow. Technological advancements of this era have revolutionized every field of life.<sup>1,2</sup> Teaching is no exception. "Teaching is Communication". An efficient teacher is an effective communicator. One develops such skills of communication by virtue of his/her in depth knowledge in the subject, interest, age and experience.<sup>3,4</sup> Conventional methods encompass blackboard and chalk with oral demonstrations and verbal dictations, while the non-conventional methods consists of more modern teaching aids, like overhead projectors (OHPs), PowerPoint (PP) slides, Medical videos and animation clips which add quality to teaching<sup>2</sup>.

Present day teachers are reluctant to OHP teaching and some teachers even feel OHP as an outdated teaching aid. However used appropriately with a creative mind, OHP still appears to be a useful tool for teaching.

Though knowledge about the skill of FNAC technique is not a must know topic in undergraduate curriculum of RGUHS, it may help future doctors who work in periphery where pathologists may not be available to perform the task. With this intention as well as to make

effective use of OHP, we designed a technique to teach the skill of FNAC to the undergraduate students using the OHP in an innovative way.

## Objectives :

1. Use of OHP as a skill learning tool.
2. To study the students perception about skill learning using OHP as a teaching tool.

**Methodology :** A group of twenty four second year MBBS undergraduate medical students who were willing to participate were included for the study. Students were initially briefed about the technique going to be taught and the importance of the same. Then, they were explained about the FNAC procedure using an OHP. A diagram of neck swelling was drawn on the transparency sheet. The technique of sterilizing the site, introduction of the needle, aspiration technique etc. was done by demonstrating the same, using spirit cotton swab, syringe, slides and eosin stain (to show aspirated material) with simultaneous description of the procedure. Later students were divided into groups and allowed to perform the FNAC technique on simulated patients individually using a checklist. At the end of the session, students were asked to give feedback about OHP mode of teaching.

## Correspondence:

**Dr. Kavita G U**

Professor, Department of Pathology  
SSIMS&RC, Davangere, Karnataka  
Mob. : 9886055699  
E-mail : drkavitagu@yahoo.co.in

Access this article online

Website : [www.jermt.org](http://www.jermt.org)

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**Table 1** : Perception of students towards use of OHP as a teaching and learning tools

Feedback questions	Number of Positive responses out of 24 participants	Percentage (%)
Did you feel it as an Innovative method of teaching?	24	100%
Was there better understanding of concepts through figures drawn?	22	91.66%
Was there better understanding of skills?	23	95.83%
Use this method for teaching other skills in pathology like peripheral smear making etc.	22	91.66%

**Results :** All the twenty four students who participated in the study gave a favourable response towards the use of OHP as an innovative method of teaching. (Table 1)

#### **Discussion :**

There has been a growing interest over the past decade for a paradigm shift from teacher-centered mode of delivery to student-centered <sup>4,5</sup>. The three domains of learning are cognitive, affective and psychomotor domains. Students have shown to grasp new knowledge by the help of visual, auditory and tactile sensory modalities <sup>4,6</sup>.

It was observed that students preferred the use of power point presentation in lectures than convention method of teaching for the reason that it had better inclusion of content and understanding figures. Especially in a subject like pathology, where diagrammatic presentations are needed, students find it easier to understand.

Overhead projectors have been employed in universities the world over, for many years. <sup>7</sup> From the teachers perspective, transparencies are easy to make and can be repeatedly used. Presentations using an OHP have the advantage of allowing the instructor to face the audience while pointing out features on the transparency. For non-photocopied materials: one can use plastic film as a substitute for more costly transparencies. Framing it can prevent crinkling. In addition to OHP pens, colored cellophane strips cut with a sharp knife and attached to the image area with transparent adhesive is also another innovative ideas of creating effective transparencies. <sup>8</sup>

Diagrams can easily be drawn and presenters can modify the slide order according to their will. It takes less time to present the same information as compared

to conventional teaching methods. Students can even be made to draw diagrams in their records during the practical class by simultaneously drawing on the OHP so that they learn it well as they are made to involve in the activity. Students can be allowed to prepare mini poster ideas, mind maps or project proposals etc. in the classroom as this provides space for interaction too.

Other techniques of OHP usage include overlaying technique, projecting of different shapes and X- ray. It avoids the mess caused due to chalk powder and storage for long periods of time is also possible.

Attempts to maximize the use of OHP should be made through inexpensive materials. Though this study was carried out on a small group of students, it could be tried on larger group. With introduction of more flexibility, creativity and proper knowledge of how to prepare and present OHP transparencies one could make teaching through this media an effective one and make students enjoy the learning process instead of letting lizards seek the warmth and sleep inside the light box of the OHP in your institute!!

It is found that students are interested in learning through live demonstrations, group discussions, continuing medical education and active interaction rather than simple straight lectures.

Feedback from the students had facilitated a change in the preconceived notions about teaching learning principles and boosted the enthusiasm of the faculty to try and adapt innovative methods of teaching for better skill development among students.

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