

# Improving Teaching-Learning through Smart Classes

**Dr. Shruti Tiwari**

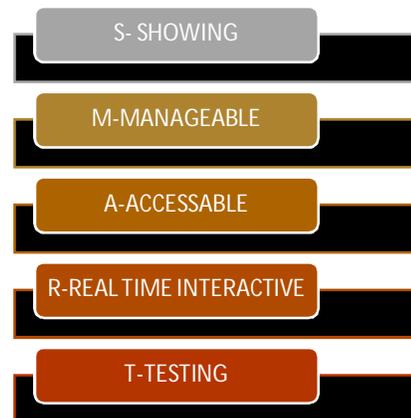
*Principal, Gyan Vihar School of Education, Suresh Gyan Vihar University, Jaipur  
shruti.tiwarimygyanvihar.com*

**Abstract:** The latest technology of teaching and learning in the field of education is now shifted on smart classes. It is a new vision in education. The smart learning approach provides smart thinking tools as well as a techno based environment to learn for learners of all age groups. The use of ICT and a different educational technology in teaching learning techniques gives a smart effect too. Instruction through computer, internet and multimedia procedures will be a common thing in future. The smart class concept is completely new vision and able to produce interest in studies. Smart school and smart class is an innovative concept for teachers and students. Involvement of computers, internet, projectors and white boards in a systematic blending way also related to blended learning. The concept of this education is effectively utilizes in all areas or any discipline from primary to higher education.

**Keywords:** Innovation, ICT, Smart Class, Learning, Multimedia, Educational Technology.

## I. INTRODUCTION

Smart classrooms are electronically enhanced lecture theatres and classrooms. These rooms create new opportunities in teaching and learning by integrating computer, multimedia and network technology. The smart classroom is highly technological concept where presentation of content is optimal, interactive, convenient access of learning resources. It is also helpful for contextual awareness, classroom layout and management. It may be summarized as Showing, Manageable, Accessible, Real-time Interactive and Testing, which nicknames "SMART". The five dimensions just embody the wisdom of a smart classroom feature, which can be referred to as "SMART" concept model,

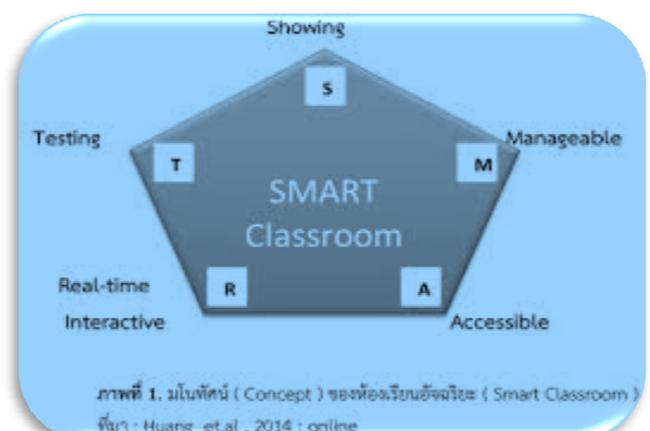


**Fig.1: SMART Model**

1. **Showing**-This aspect represents the teaching material and its presentation basically capabilities of the classroom, which needs not only showing the contents but it can be clearly and attractively visible. It also showing content suitable for learners. The existing research shows that multi-screen display can decrease the cognitive load and improve learners' achievement. Colvin (2007) noticed out that the multi-screen is far better than single-screen in the academic improvement and getting good achievements of learners.
2. **Manageable** – This dimension signifies diverse layouts and the convenience of management of the Smart classroom. The equipment and apparatus, systems and organization, various resources and aids of Smart classroom should be easily managed, including layout of the classroom, equipment, physical environment, electrical safety management and network management etc.
3. **Accessible** dimension shows convenience of resources procurement and apparatus access in the well-arranged Smart classroom, which includes resource selection, content and text distribution and its access speed. Chen Shijian (2003) shows that the rich and vast network of learning resources is favorable and conducive to independent self-learning, interactive cooperative learning, modified learning, so the implementation of this approach is for

betterment of educational socialization.

4. **Real-time Interactive feature** represents the ability and caliber to support the teaching-learning interactions and human-computer interactions of the Smart classroom, which involves basic convenient operation, smooth interaction and interactive tracking among teachers and students in convenient operation. Generally, the Smart classroom should be able to support the specific and ordinary interactions between man and machine. Their interactive equipment and interface with a simple, fully-featured, vibrant navigation, consistent with the operative habits and their characteristics, touch, visual and voice interaction can easily improve the interaction between man and machine.
5. **Testing** –This aspect is explained the perception of the physical environment during the classroom interaction and also learning behavior of students in the Smart classroom.



**Fig. 2: SMART Classroom**

The physical environment of the class including air, temperature, light,

sound, color, odours, area etc, affect the physical and mental activities and actions of teachers and students in the smart class.

## II. ADVANTAGE OF SMART CLASS ROOMS

### Updating with online information

Teachers can utilize the various online information such as knowledge databases, online audio-video and worldwide news items to strengthen their lessons and classroom teaching. Students and Learners can quickly access the wide range of powerful and resourceful tools in their respective fields and resources to conduct their academics.

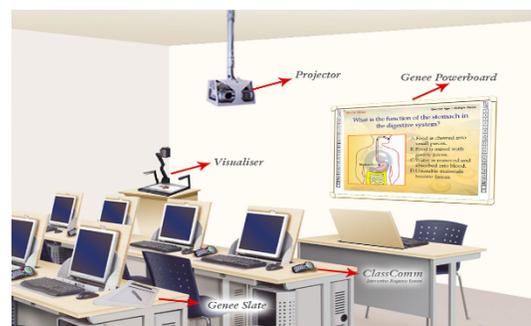
**Wide connectivity in different fields and locations:** Interactive technology tools and techniques allow for wide connectivity in various locations, making ideal linkages and collaboration and also provides distance learning environment.

**Improved thoughtful skills:** It shifts the classroom experience to a more collaborative environment so that learners start thinking in more logical and improved way.

**Linking the urban/rural gap:** The smart classroom generates another opening to fill the link /bridge for urban/rural divide by giving

the exposure of technology to students in a classroom setting.

**Different style of imparting knowledge:** Incorporating technology tools to the classroom environment is positively change the way of teaching. It gives the excellent opportunity to teachers to impart knowledge to students and at the same time it also simplify the teaching -learning process for students and teachers.



**Fig. 3: View of a SMART Classroom**

**Student involvement is increased:** Students who normally do not raise their hands in class or the back benchers who are usually sleeping, or somewhat if they are weak, now can take interest to learn something new as these modern age tools provide more understanding to them as all the senses begins to involve in the smart class rooms. By fostering discussions and developing new and out of the box ideas, technology also helps improve the student- teacher bond.

**Interact and share:** The interactive nature of technology tools provide learners an opportunity to share and participate in the teaching learning process. Smart class rooms

provides a platform for students and teachers to demonstrate their hold of the subject through touching, drawing, and writing. Every student has an opportunity to participate or contribute to the presentation and discussion.

**Offers Flexibility:** Interactive technology tools allow various forms of media – including photos, illustrations, snapshots, maps, graphs and charts, games, and video, to be displayed.. In addition to this technology tools makes learning to be more dynamic as the different methods of offering information are readily available.

**Teachers can do more experiment in pedagogy:** As an academic professional, teaches learn more about how to effectively design and execute a class guided with technology. Whether it's a dramatic change such as teaching with a flipped-classroom, or just adopting a single tool for a specific project or term, he will learn something new in modern academia. Being well-versed in technology can also help build his credibility with students, and even with fellow colleagues.

### III. CONCLUSION

The internal structure and all arrangements of traditional and classroom space does not go with digitized changes occurred in educational

system, its methodology and current scenario of social context. Smart classrooms rethink and consider learning space and learners' expectations along with resources and methodologies of teaching learning.

The Smart classroom is beneficial for students who are interested in research, technology, or reading and writing academic work. The usage and implementing this new technology must be encouraged in the current education system from primary to higher education classes. The Smart classroom provide the students as well as teacher to learn through a new techniques and too in a different and interesting manner.

It is fair-minded opinion to say that both students and teachers have become more and more technologically inclined and digitized for this new upcoming era. Students adapt quickly to new technologies, just as they will be expected to in the professional competent world. Cameras, remotes, and wireless devices are all common technologies that result in more engaged learning for students and adaptation to a variety of learning styles. In the near future, not only classrooms but students and teachers too have to adapt accordingly and upgrade themselves.

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