Fusing Learning with Technology – Innovative Mechanisms for Smart Classroom Teaching

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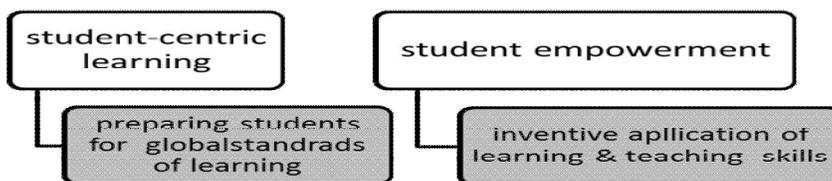
Abstract: Class Room Teaching has changed from blackboard teaching , usage of chalks , usage of diagrams , usage of maps , usage of case sheets . Class Room teaching has changed these days with the inventive of technology. Modern classroom has become digital, smart, modern & contemporary. It is becoming a part of digital revolution.   Digital technology has entered the classrooms in a big way. Teaching which had become stale &boring has now become more vigorous & dynamic. Technology has changed the avenues of learning, ways of teaching, techniques of identifying information needs of present day students. Education has changed towards interactive & collaborative learning. This paper discusses the necessity to collaborative learning smart classroom teaching mechanisms.

Keywords: Changing Classroom Teaching, Ways of Transformation,   Collaborative Learning, application of Digital Technology Inputs,

Introduction- SMART classroom technology means the collaboration of SMART board and the other devices and workstations that will help to boost teaching patterns in classrooms & learning activities. Students will be able to work individually as well as by forming separate groups. The technology not only will contribute to the advancement of the learning process but to engage students in group activities and educational activities as well.

Smart Classroom concept – Smart Classroom concept is a comprehensive strategy for digital education which is being incorporated across the globe. The strategy is that it is student-centric; recognizing the demand, from both students and their parents, for seamless movement between learning at school, home, work and play filed. It collaborated students learning to the optimum level. (James .H. Stronge)
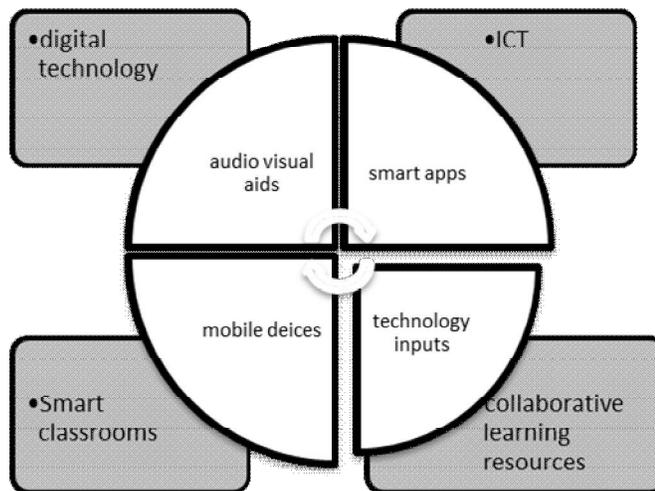
Daigram-1

Smart Classroom Applications

1. Application of audio visual media
2. Application of   mobile devices
3. Application of   expert advice
4. Application of   SMART classroom technology
5. Application of technology
6. Application of   new capacity building programs for teachers

Daigram-2

Modern technology has opened new vistas for incorporation of innovative audio visual aids , mobile devices , smart technology in to classrooms.

Application of   Audio Visual Media- Students' interest in learning enhances with a Audio Visual Media aids used inside a classrooms. Learning becomes more attractive if science history Geography etc are learnt through Audio Visual Media. The classroom teaching considered as stereotype &boring can come alive with Audio Visual Media devices. These days students are more intelligent hence Audio Visual Media devices inside the classroom can enhance learning capabilities. (James .H. Stronge – Qualities Of Effective Teachers Achievement) 2011

Application of mobile devices ; Now in many schools, students are provided with mobile devices like laptops, tabs, i-Pads which enhance the experience of education. Students can access net, read online materials and e-books and that helps the student in faster learning process. Students can access Edu-creation through i-Pad which provides video lessons as well as a public directory of lessons to browse through.

Online Conversation with Experts from Outside: A great way to boost the learning experience is to engage the

students in conversation about their subject. And this conversation does not only mean with the fellow students or the educators. Through online virtual platform and video chats students can converse with the experts of the field, no matter in which part of the world they are. As all educator will agree that the interactive education helps a student more than the lectures. And if students get the opportunity to take part in active interaction with the experts that will be extremely beneficial for them.

SMART Classroom Technology: SMART classroom technology means the collaboration of SMART board and the other devices and workstations that will help to boost the classroom activities. Students will be able to work individually as well as by forming separate groups. The technology not only will contribute to the advancement of the learning process but to engage students in group activities and educational activities as well.

Classroom Management: While investing on the modern technology to enhance learning experience, the authority of the institution should also take a note of the classroom management. When SMART classroom and mobile devices are used in the classroom, the authority needs to make sure the proper software of effective classroom management is at place. It will guarantee that the devices and technology are being used to enhance the learning in the classroom.

Technology Empowers the Teacher in Actuality: Before shunning the use of technology, teachers needs to realize that the technology actually does empower them. The vast platform of social media like Facebook, Twitter, enable teachers to have better interaction with students, both online and offline format. Educator can use the mobile apps to grade,

evaluate the performance of the students. It can also provide the database tom plan the lesson for the session.

1. Passive education can't help anyone, it is already proven in the digital era that we are living in, the younger generation is becoming more and more tech savvy. For their betterment one can always fuse learning with technology. It will not only help the students but will be beneficial for teachers as well.

Challenges: In India, Smart classrooms face several challenges

1. Classes are over burdened with heavy strength .In some universities the student number per class is more than 100 . Student face the problem of seating , & hence it is difficult to
2. Computer aided device dependent students
3. Different operating systems demands more techno savvy staff
4. Carrying multiple computing devices causing a problem
5. Network band width problems
6. Enormous data demands at a time
7. Untrained students in digital literacy
8. Vulnerable campuses with minimum security options

Considerations-
1. **Investing in a modern Wi-Fi infrastructure**- The proliferation of devices and mushrooming volume of data moving over campus wireless networks present a perfect storm that consistently threatens to degrade performance. For that reason, colleges and universities should ensure that their Wi-Fi networks include features such as role-based access control, load balancing, indoor-outdoor coverage and automated on-boarding.
2. **Private sector intervention in SDN-** Many of the elements of software-

defined networking (SDN) were actually borne from higher education research labs, so it's only logical that this emerging technology should help colleges and universities get a handle on their network-related challenges. Alas, their adoption of SDN has lagged behind the private sector. That needs to change, and the growing complexity of campus networks figures to drive adoption in the coming years. One of SDN's most coveted benefits is its ability to simplify complex networks, and college and university networks are not just complex; the demands on them are constantly changing. It's a match made in heaven.

3. Virtual desktop infrastructure (VDI) is already helping numerous colleges and universities improve the performance of applications, regardless of a student's location or what device they're using. It also is quite helpful in shoring up the security and privacy layers that must protect student data. virtual desktops are enabling faculty to focus on instruction instead of technology, while delivering a consistent and secure desktop experience for students whether they're on campus or off.

4. **Managed network services** - Managed network services are a good option for beefing up security and privacy compliance; cloud-based file-sharing services can help to contend with the explosion of all types of data; and unified communications can boost distance learning by improving collaboration between faculty and administrators. while college and university networks are under siege from the meteoric growth of devices and data, a few strategic technology deployments can help them regain some control and deliver a truly smart classroom learning environment for faculty and students.

Conclusion- Thus Students' interest in learning can be enhanced with a smart teaching aids & classrooms can be made a hub of practical learning. Learning can be made more attractive if subjects are learnt through smart technology supported classrooms.. The classroom teaching considered as stereotype &boring can come alive with Audio Visual Media devices. These days students are more intelligent hence Audio Visual Media devices inside the classroom can enhance learning capabilities. This will add up to the productive learning , creativity building & collaborative learning . A student can naturally learn to invent & innovate & take learning to a new high. Education policy should bridge the gap in education & invest in technology based learning.

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