

Editorial

VIRTUAL LEARNING , A new pillar of teaching learning method

Dr Janardan Bhatt

There is no going back. The traditional classroom has to be transformed into virtual class.
Web-based Education Commission, US

The mediocre teacher tells. The good teacher explain .The superior teacher explain .The great teacher inspire. William Arthur ward

If you find the student not attending the class attentively do not blame yourself , may be the student is addicted to virtual learning. Dr Janardan Bhatt

Learning is a change in behavior as an end result of education process. It is an internal integration between what student already know and what student encounter new information .In terms of physiology it is changes in neuronal synapses in brain. Information technology can and had made major impact on learning . In andragogy model of learning and teaching learning process the teacher is a mere passive facilitator and the student is active learner. This paradigm shift is also true in medical education i.e. education is shifting from teacher centric to student centric where teacher is a facilitator and student is an active learner. Some teacher might still finding difficult to accept the paradigm shift and continue to believe that lectures are the main teaching learning method in medical education .The learning pyramid has very well documented that retention rate with lectures is just less than 10% while with other teaching methods retention rate is many times more. With application of advancement of information technology and wise availability of internet and smart phones in last decade more and more medical students are adopting new learning style i.e. virtual learning and may become the one more pillar of teaching learning method in medical education. There are an evidences for the effectiveness and acceptance of e-learning in the medical education , especially when combined with traditional teacher led activities. Several repositories and e learning material are created and uploaded and available to students . Since 1990s, a new approach called "e-learning" is gradually being adopted by higher education institutions including medical colleges. Virtual learning is a learning process where teacher and students are in different places and with the help of internet and computer technology student learn and enhance self responsibility to learn and also supports individuals to gain lifelong learning attitudes. For greater globalization, for the development of a global common curriculum and training and creating student-centered teaching learning program virtual learning is an essential element of medical education .

It is an era of beyond google the smart google and medical google and so many ... The moment the teacher utter a word in front of students ,students with smart phone will find all possible alternate answer and explanation .Yesterday I was just referring smart class room and smart board ect.. If the students have already experience smart class room , smart board and such things from standard KG and learned rhymes on multimedia how it is a challenge to satisfy the need of such students in medical and higher education. Today challenge of medical teacher is managing virtual learning style of newer students. The answer is virtual teaching learning method.It is not far from reality that one more pillar of *virtual learning* will be added to our existing pillars i.e. problem based learning ...and so on....This virtual learning style is one of the few methods which will be available life long. We live in a globally connected world. Digital technologies help us to access virtual content, courses, experiences and people that we might never have thought possible in pass decades.

The virtual learning also known as **Web-based learning , Computer-based learning, digital learning or e-learning** and require **Internet, Extranet/ intranet, Audio or video media, Satellite TV, CD-ROM...** The virtual learning is not truly very new. Since 1970s many television channels were broad casting many educational series by education media research center/ EMRC other portal in various parts of India. But still there was barrier of time. Current mode of virtual teaching learning method is beyond barrier of time , space and person .Virtual Education is a learning environment where teacher and student are separated by time and/or space .Teacher provides content through methods like internet, video conferencing, multimedia resources and other course recourse.

Today when we talk about medical education technologies and advance medical education technologies, we talk about things like ,competency models defined goals ,measured outcomes – educational and clinical, preceptors ,use of simulation ,computer based manikins ,mannequins ,continuing medical educationVirtual teaching learning method can do every thing possible mentioned in medical education technologies .

Virtual learning is divided into three phases i.e. 1 passive learning , 2 Active learning and 3 Immersive learning . The most important fact of virtual learning is addition interactive learning . One can with text than text with test with or without multimedia together. This make learning more interactive and interesting.

Advantages of virtual learning is enumerable .**virtual-learning have huge cost and time saving, Convenient ,Flexible,,Easily updated, Efficient** , beyond time space barrier ,with **adjusted Pacing and e-Simulation** . Even and above one can add **adaptive Learning and edutainment –** combines education with entertainment and gaming. This form of education enables students to be more engaged in the learning process.

Though the virtual learning is not free from obstacles .In beginning there is lots of **Time-consuming creating a teaching learning module and has to pass through so many experts for**

verification . The module development requires intense hardware and software ,experts time .And even after gain trust is an issue of never ending debate. It requires all modern technologies available i.e. computer, laptop,smart phone and multi media ,internet...

But in context long term gain and benefit virtual learning is not costly on long run. Unlimited students can take benefit beyond time and space and available on demand. Learning path and pace determined by learner. In Virtual learning is teaching -learning is 'one-to-one' ,more interactivity (in normal classroom, it varies with the class size),learner-centered with learner monitoring & grading system.

In this context to virtual learning medical teachers have to walk few mile more . The teacher has to motivate students to use of all available technologies for learning and **encourage collaborative learning . Motivated teacher must participate and develop knowledge & skills** for developing a peer reviewed virtual learning-teaching material .They must **Understand learning needs of students , facilitate learning create more learning opportunities** This will a **Lay foundation for Lifelong learning** as recommended Medical Council of India. Virtual learning will generate the **Self-directed, Self-motivated, Self-regulated e-Culture.At Administrator level , the administrator should Create Learning environment for virtual learning .The most important components of virtual learning are** eMAIL, Website, Video conference, **Learning Management System including** Multimedia .

Further work and studies are needed for expert evaluation validity of content of virtual-learning materials. It should include a peer-reviewed process .The virtual learning process must achieve the learners need, satisfaction, content usability, and demonstration of learning. Faculty' skill in creating digital-learning materials is also incoming demand in era of virtual learning .The integration of virtual teach-learning method into undergraduate, graduate, and continuing, medical education will promote an adult learning in medical education.

1] Frehywot S, Vovides Y, Talib Z, Mikhail N, Ross H, Wohltjen H, Bedada S, Korhumel K, Koumare AK, Scott J.E- learning in medical education in resource constrained low- and middle-income countries.Hum Resour Health. 2013 Feb 4;11(1):4. doi: 10.1186/1478-4491-11-4.PMID:23379467 me 8 Issue 2 Article 5

2]Geoff Wong1* , Trisha Greenhalgh1 and Ray Pawson2 Internet-based medical education: a realist review of what works, for whom and in what circumstances,BMC Medical Education 2010, 10:12 doi:10.1186/1472-6920-10-12

- 3]Harden RM1 , Hart IR An international virtual medical school (IVIMEDS): the future for medical education? *Med Internet Res.* 2004 Jan-Mar; 6(1): e10. Published online Mar 5, 2004. doi: 10.2196/jmir.6.1.e10 PMID: PMC155058
- 4]Hayden EM, Navedo DD, Gordon JA. Web-conferenced simulation sessions: a satisfaction survey of clinical simulation encounters via remote supervision. *Telemed J E Health.* 2012 Sep;18(7):525-9. doi: 10.1089/tmj.2011.0217. Epub 2012 Jul 24. PMID:22827475
- 3]Jorge G. Ruiz, MD, Michael J. Mintzer, MD, and Rosanne M. Leipzig, MD, PhD The Impact of E-Learning in Medical Education *Academic Medicine*, Vol. 81, No. 3 / March 2006
- 5]Masic I, Pandza H, Kulasin I, Masic Z, Valjevac S. Tele-education as method of medical education. *Med Arh.* 2009;63(6):350- 3. PMID:20380118
- 6]Moreno-Ger P, Torrente J, Bustamante J, Fernández-Galaz C, Fernández-Manjón B, Comas-Rengifo MD. Application of a low-cost web-based simulation to improve students' practical skills in medical education. *Int J Med Inform.* 2010 Jun;79(6):459-67. doi: 10.1016/j.ijmedinf.2010.01.017. Epub 2010 Mar 29. PMID:20347383
- 6]Smolle J. Virtual medical campus: the increasing importance of E-learning in medical education. *GMS Z Med Ausbild.* 2010;27(2):Doc29. doi: 10.3205/zma000666. Epub 2010 Apr 22. PMID:21818198
- 7 Subramanian A, Timberlake M, Mittakanti H, Lara M, Brandt ML. Novel educational approach for medical students: improved retention rates using interactive medical software compared with traditional lecture-based format. *J Surg Educ.* 2012 Jul-Aug;69(4):449-52. doi: 10.1016/j.jsurg.2012.05.013. PMID:22677580