Blended Learning in Medical Education

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The goal of medical education is to have well-educated and competent physicians to address the healthcare issues facing today. Hence the teaching of medical students has gained the attention of academicians. Medical education faces lot of challenges with respect to pedagogical advancements in higher education and the changing learning needs of the medical students. This has stressed the need for newer teaching and learning strategies, resources and learning environment on the part of both the students and teachers.

The integration of technology into medical pedagogy has proved effective in many ways. This has made the medical education more flexible, learner centered, interactive and collaborative among teachers and learners[1]. Blended learning is one such strategy that has proved effective in all fields of higher education including medical education. Blended learning refers to the systematic integration of online and face-to-face engagement to support and enhance meaningful interaction between students, teachers and resources[2]. Using principles of adult education, blended learning allows for greater flexibility and responsiveness in the teaching and learning process[3].

It is also proved that the limitations of time and space, instructional media and methods can be met through integration of online instruction which is a component of blended learning[4]. In the present age of information revolution and penetration of technology and ICT in all fields of education where medical education is not an exception, it is to be taken care that technology or ICT should be not used indiscriminately or not to be used just for the sake of application because application of technology or ICT is highly context-dependent. If certain concepts can be delivered through traditional or face to face mode it is always better to follow the same for proven expected outcomes. Unless a technology assures for better learning outcomes it should not be considered as a strategy and again it depends on the experience and expertise of the concerned teacher in using a particular technology or a teaching technique.

'Blended learning' includes learning activities that involve a systematic combination of co-present (face-to-face) interactions and technologically mediated interactions between students, teachers and learning resources. Blended learning can be designed for a specific course or a content that has clear objectives by incorporating suitable teaching-learning activities.

The following face-to-face interactions and technology mediated interactions may be considered for effective blended learning:

Interactive lecture cum demonstration

A short lecture that starts with a brainstorming session could be delivered on the topic of the session. A demonstration on the topic if applicable may be incorporated suitably. Chalk board and other demonstration objects may suitably be used for this. After the demonstration a small group discussion moderated by the faculty can be organized. If necessary a buzz session on the topic can also be introduced to make the learners gather and reflect their ideas on the topic of discussion.

Multimedia presentations

Certain contexts of the topic could be covered by using videos and power point presentations.

Group discussions

Certain identified areas of the content can serve as topics for group discussion which will help learners in better understanding of the chosen content.

Quiz

A short quiz with limited questions from identified contents can be conducted by providing immediate feedback which will improve the learners' focused attention.

Expert address

A video call is now very much possible with the help of smart phones. With due appointment, an expert in the respective field may be asked to address the learners with some novel information about the topic by calling him/her over a smart phone. The speech can be projected to the whole class for listening.

Using laptops in the classroom

If lap tops are available with learners and the classroom has internet connectivity (possibly with wifi) important websites of respective subject can be suggested for the learners to browse and reflect on the topic in different views. This can also be done by the facilitator him/herself using an interactive board (smart board).

Collaborative learning

An online collaborative writing of assignment or a discussion may be mooted out with the help of online tools such as Google docs.

Peer to peer presentations

Blended learning can also be extended to the next session through different ways. One of the way is by using Peer to peer presentations. In this, learners will be required to present a ten-minute topic of their own in groups of 4 or 5 to their peers. They should be encouraged to choose topics they felt had not been covered sufficiently in the classroom.

Glossary

Towards the end, based on the discussion held during the session, learners can be asked to prepare as many number of glossary of terms as possible with their meaning or explanation. If this can be digitally prepared using smart board or a iPad it can be immediately transmitted to all the learners via SMS.

There are also other methods such as problem based learning (PBL) which a facilitator can identify or synthesize on his own depending on the nature of the content and teaching-learning needs. Thus blended learning meets both 'individuation' and 'pluralisation'- where 'individuation' refers to presenting lessons in ways that are compatible with the learners ways of learning and giving the learner the opportunity to show what he/she has learned and understood and 'pluralisation' means presenting important content in a variety of ways, not just via lecture or reading. Pluralisation helps the facilitators reach more learners by making them to think in multiple ways.

Blended learning is context-dependent and it is challenging for it demands proper knowledge, attitude and skills on the part of facilitators with respect to teaching techniques and technologies. Thus, a successful implementation of blended learning in one domain does not necessarily mean that it will have value within another domain. Although blended learning makes use of computers and the internet, it should be remembered that the focus should not be on the technology. Rather, the educator must first determine the best way to teach a particular topic and then determine how technology might enhance the teaching[5]. However, cultural change in teaching practice is more important to bring in innovations in teaching medical and allied health sciences.

References

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