



LETTER to EDITOR

Coronavirus and medical education: Getting change and turning to new education paradigm: the need for scaffolding learning in online training

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Coronavirus pandemic has caused extensive changes in various fields. Education is one challenging and necessary dimension to be paid attention by policymakers and considered as a necessity. Due to changes in the methods and styles of providing medical education from face-to-face to virtual training, and due to its novelty in our country and several challenges ahead, it is necessary to take measures an effective support for better performance of students so that they can monitor their movement to achieve excellent training goals. This will be gained by supporting students' performances and creating appropriate scaffolds for them. This article covers the needs for scaffolding, the manner and challenges and the related reasons. Also the necessity to be involved in teacher's activities is emphasized so that the quality of education at the present time may be improved.

Keywords: Medical Education, Virtual Learning, Scaffolding, Coronavirus, IRAN

Dear Editor,

The Coronavirus 2019-2020 Pandemic is an acute respiratory syndrome 2 (SARS-CoV-2) which is a result of the Coronavirus infection. It is expected that all countries are not immune to its negative effects and Iran will not be an exception.

What has happened to the education in Iran is the dominance of virtual learning over face-to-face training and presenting lessons in a new form. Despite some problems and challenges in this domain, technology and its application in novel education and its effective use by professors is a perceived need. For sure the effective use of any training program which is required and enhances pragmatic influence and is as a support for learning and education is called learning scaffolding. Educational scaffolding reinforces learning through dialogue, feedback, and sharing what has been learned, as well as challenging learning experiences can create new potential for lifelong and independent learning.

Technological scaffolding is able to provide the necessary support for conceptualization in online environments. This kind of scaffolding can provide the development of metacognitive capabilities in technological environments that can be clearly seen in the discussion environments, Wiki, and mass interaction tools. Despite the diversity of students with different abilities, information literacy, and cognitive and metacognitive levels, using tools, processes, unique teaching-learning environment, and the challenges of using technology in education require effective support to pave the way for achieving the educational goals (1,2).

Considering above mentioned issues, it seems necessary to produce standard educational content, educational supply and its methods on one hand, then how to support students has become a serious challenge for professors and students, and seems necessary to be discussed as the following issues:

Students with different metacognitive levels

Students with different motivational levels

Metacognition is how to manage knowledge and set it up for learning. What challenges an online learner, lack of knowledge, knowledge of the curriculum and how to use it for learning and self-regulation should be considered in the cyberspace.

Also there are some differences between students with low metacognition (ability to manage cognitive processes, self-

regulation and self-governing) and high recognition (Capacity of cognitive processes and the need to support the learning process to improve higher levels of thinking). It is also an important category in this field in order to help promote students with high metacognition, so it will be possible to help their management and self-regulation

The diverse motivation of students in this field is another point that is necessary to be paid a special attention to at this time. Motivational difference is a category that separates technophile students from technophobe ones. In such a way motivating, accepting, and using students with literacy problems and information motivation must be supported by appropriate methods and contents; however, some efforts should be made to promote the motivation of interested students through participating in educational activities.

Due to the fact that educational scaffolding is a supportive structure in which the students are helped to learn new tasks and concepts that they were not able to experience and learn normally, therefore it seems necessary to support students in online environments

These strategies help and support students in how to achieve or solve a problem. Therefore, in strategic scaffolding, it is possible to help in the formation of basic principles and basic concepts of the lesson by using purposeful materials for the students. One of these strategies is to repeat lesson objectives, shapes, logos, and key cycles to form the mentality of their importance in mind. On the other hand, the teacher adjusts the flow chart or concept map to bring users closer to the goal with this supportive scaffolding.

Providing application software and videos of examples and tools can help support the online learning atmosphere. To achieve educational goals and to find the path of educational movement, the acceptance of motivation and its usefulness can be facilitated for learners to reduce their anxiety and stress caused by unfamiliar environment, so they can learn to how to use the existing tools to create an attractive environment.

Technological education with its own conditions and potentials can be a good environment for developing

learning processes. In this way it is necessary to develop effective support processes by providing a way to achieve educational goals through appropriate scaffolding with different learners and cognitive and metacognitive forces to enable students to develop and promote learning. The special ability that every professor of medical sciences needs to learn and apply through the use of technology in education is to create more efficient training at this critical

time.

Ethical considerations: Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

Conflict of interest: None to be declare.

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