

**The upcoming revolution in teaching: are we ready?**

The teaching and learning process is dynamic and in continuous debate. For some decades, the actors involved in this process have noticed a tendency to stagnation of traditional teaching methods. For a long time, we believed only in lectures, grounded on the belief that knowledge is a product that can be passed on from professor to student, like a blank sheet or tabula rasa as suggested by John Locke in the 17<sup>th</sup> century. However, anyone who studies the literature on the subject soon realizes the limitations of this model, since the simple transfer of content is not capable of generating learning. The achievement is low. In general, the way it is usually applied ignores basic principles such as the learning styles, previous experiences, and skills of each student, which could be used in the teaching-learning process. It does not capture the student's attention. Moreover, it consolidates a misalignment between how one teaches (or tries to teach), how the knowledge acquisition is analyzed, and how that learning is effectively applied to life experiences.

Previously new, currently the active teaching-learning methodologies have spread and gained space. Based on them, a new paradigm is proposed, in which the professor leaves the center of the process and the student leaves a more comfortable position. The professor is no longer responsible for delivering a product and becomes the activator, facilitator of an interaction that provides the necessary conditions for the collective construction of knowledge. However, it requires undeveloped skills: professors are not used to “sharing the stage”, giving up control, even punctually and partially; and students were not trained to take the lead in the classroom.

Among the so-called “new methodologies”, some stand out, justifying their mention. Problem-based learning or case-based learning are interesting methods, since they approach the content from its application in real simulated challenges that will be experienced later in professional practice. Apparently, they work best when combined with a flipped classroom, an approach in which students study a particular subject before class, when face-to-face contact is designed to facilitate interactions that will allow the application of previously obtained information.

Distance Education is a methodology that has been used for some time. However, its use has been expanding greatly in recent years, especially in higher education. Although it has important potentials, for most situations it cannot be considered a substitute method for classroom teaching. From this perspective, studies suggest that the best results are obtained with blended approaches, seeking to balance the advantages of disadvantages of both methods. However, without dedication and commitment, the desired results are not achieved. Other barriers to be overcome are frequency, dropout and the sense of abandonment perceived by students.

One of the great challenges of Dental education is the construction of a truly integrative curriculum, where the integrality of knowledge construction is associated with the integrality of health care. For this to occur, it is not enough to combine different specialties in the context of a discipline or physically in the same outpatient clinic. It is necessary to create conditions for the student to develop a look that considers the patient from different perspectives, contemplating the most objective health problems, but also the sociocultural dimension of the individual who stands before them needing assistance. The peculiarities of each knowledge area must be addressed and respected for construction of integrated knowledge. Still, it is important to consider the characteristics, feelings, and wishes of students, faculty, and members of the university community.

Specifically in Dentistry, studies in the field of education are warranted. Right now, there are more questions than answers. How do we integrate students, professors and the academic community in the process of knowledge construction to address the needs of our society? Are professors and students ready to face these transformations in teaching? How to apply and evaluate the effects of new methodologies when inserted in the teaching of dentistry? Can we determine the parameters and limits for the use of Distance Learning? Are we prepared to understand that changes are constant and need to be made not only from our individual perspectives, but especially from the perspective of new thinking about the teaching-learning process?

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