

Revista de la Facultad de Medicina

ISSN: 2357-3848 ISSN: 0120-0011

Universidad Nacional de Colombia

Beltrán-Véliz, Juan Carlos; Muñoz-Navarro, Sergio; Osses-Bustingorry, Sonia; Navarro-Aburto, Braulio; Peña-Troncoso, Sebastián Implications of technical-instrumental rationality in health education: pending challenges Revista de la Facultad de Medicina, vol. 65, no. 3, 2017, July-September, pp. 541-542 Universidad Nacional de Colombia

DOI: 10.15446/revfacmed.v65n3.63950

Available in: http://www.redalyc.org/articulo.oa?id=576364413026



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## LETTER TO THE EDITOR

DOI: http://dx.doi.org/10.15446/revfacmed.v65n3.63950

## Implications of technical-instrumental rationality in health education: pending challenges

Implicaciones de la racionalidad técnica-instrumental en la enseñanza en áreas de la salud: desafíos pendientes

Recibido: 07/04/2017. Aceptado: 31/05/2017.

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Beltrán-Véliz JC, Muñoz-Navarro S, Osses-Bustingorry S, Navarro-Aburto B, Troncoso-Peña S. Implications of technical-instrumental rationality in health education: pending challenges. Rev. Fac. Med. 2017;65(3):541-2. English. doi: http://dx.doi.org/10.15446/revfacmed.v65n3.63950.

Beltrán-Véliz JC, Muñoz-Navarro S, Osses-Bustingorry S, Navarro-Aburto B, Troncoso-Peña S. [Implicaciones de la racionalidad técnica-instrumental en la enseñanza en áreas de la salud: desafíos pendientes]. Rev. Fac. Med. 2017;65(3):541-2. English. doi: http://dx.doi.org/10.15446/revfacmed.v65n3.63950.

## Dear Editor,

The current era, characterized by postmodernism, puts a strain on the true meaning of higher education, specifically in relation to health, which has been guided by logics binding the technical, reflective and critical rationality of those who train professionals. One of the core concepts of this contemporary debate is the imposition of technical-instrumental rationality as the only paradigm of knowledge. This imposition eclipses the epistemological foundation of educational work and the teleological problems of every teaching act (1). Actually, in the words of Heidegger, insofar as man technically constructs the world as an object, the path to the open is voluntarily and completely obstructed. (2, p218). In this context, it is possible to observe the technical-instrumental rationality of knowledge, which constitutes one of the cognitive interests that underlies all human practices and, specifically, the teaching methods in health.

In this field, the problem is generated when the traditional model of education is legitimized as unique, because here non-participatory teaching methodologies with marked teacher-centered emphases are used. As a matter of fact, a study revealed that teachers have what could be considered more as a behavioral view, since students must memorize information and teaching takes place through repetition and constant review (3). Thus, we find ourselves in the presence of a

teaching crisis that hinders the foundations of thought. In this regard, a research conducted in health programs (Nutrition, Medicine, Dentistry and Nursing) showed that teachers require pedagogical knowledge to improve the quality of teaching (4).

The technical-instrumental rationality limits the actions of teachers and students due to the lack of critical and reflective thinking. This happens, in part, because technology has expanded to such an extent that provides physicians with more means to rely on, while reflection has been left aside (5). It is evident that health programs, in relation to pedagogical practices, have been automated and instrumented (6), causing a crisis in higher education, specifically in the quality of the training provided to students.

It is pertinent, therefore, to transform the teaching processes to generate a true scientific revolution based on a crisis that challenges the dominant paradigm and fosters the emergence of a new paradigm with a theoretical nucleus that supports a reflective practice. In this way, teachers should develop their practice not only in a mechanized way, but in a reflective way. According to Cassis (7), Schön stated that reflective professional practice allows the teacher to build knowledge by solving the problems found in practice, which implies building knowledge from actions to take decisions through the use of strategies and methodologies and to innovate focused on critical reflection. In this sense, pedagogical strategies such as collaborative work, problem-based learning, debates, Socratic dialogue, case studies, reflection, feedback, discussion groups and structured controversy are proposed as valid tools.

Reflective practice would allow teachers to analyze, debate and question their own practices to improve and, thereby, optimize the teaching-learning processes of students. Additionally, it would favor the development of reflexive and critical thinking in students regarding diverse pedagogical issues and problems that emerge in the health area. In conclusion, without excluding technique and practice, teachers should articulate their practices with reflective rationality aiming at professionalizing the pedagogical processes of the health disciplines, all this with the purpose of improving the quality of student training.

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