# Case based teaching strategies in higher education in health sciences

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#### Abstract

**Introduction**: The use of cases is one of the most frequent practices in health sciences teaching.

**Objectives:** To determine the value and meaning that teachers give to the inclusion of cases in their classes.

**Method:** A qualitative descriptive-interpretative documentary study in process is presented, in which health sciences higher education teachers' plannings which include cases in the teaching strategies are analyzed.

**Results:** Out of the 522 documents surveyed, 125 written productions on teaching strategies that include the use of cases were identified. Based on 24 of these records, a documentary matrix is constructed to systematize the main dimensions and thus produce a guide to facilitate the design of teaching strategies with cases in the health field.

**Discussion and conclusions:** The first results allow us to recognize that the use of cases is central in these teaching strategies since their use enables addressing the complexity of the professional practice in the classroom. The way in which they are included in the classes implies a great diversity regarding the moments, the format, the type of approach and the complementary activities.

**Key words:** Educational strategies, Case based method, Health, Higher Education.

#### 1 Introduction and Theoretical Framework

The use of cases to teach has an important place in higher education level (Schwartzman et al, 2019). In particular, in health sciences it is a common practice to bring to the classroom a specific situation, generally linked to a patient and their pathology.

Selma Wasserman (1999) defines cases as complex educational narrative instruments that should be constructed on the basis of plausible problems and allow an interdisciplinary approach. She considers that the work with cases is organized in a sequence composed of critical questions, work in small groups and a plenary interrogation. Students are encouraged to analyze and interpret the situation, exchange ideas with the group and actively search for information (Davini, 2008).

Litwin, on the other hand, identifies in these strategies an invitation to think integrating "text and context, the simple and the complex, the objective and the subjective" (2012, p. 95). Cases allow the integration of thought, knowledge and action, as well as values and emotions. The ultimate objective is to understand the problem and the context of the situation and to elaborate possible ways to intervene conducive to knowledge transfer (Davini, 2008).

Schneider (2014) suggests the possibility of using different sources of information for the elaboration of cases. These could be compiled either from pre-existing materials or from newspapers, videos, etc. On the other hand, there are situations that require the creation of a case that have the advantage of being customized according to the teaching objectives and are more specific.

Some authors state that when choosing a case to work with in the classroom, not only should these guidelines regarding the sources and criteria for designing or obtaining the cases and the activities that accompany them be considered, but also, as Amin (2003) remarks, the students' level of understanding, their previous knowledge and the learning objectives of the class should be taken into account.

Recent studies in the field of professional training emphasize the value of the use of cases to favor knowledge transfer to future or current situations of professional practice (Ulvit et al, 2022). They also emphasize the importance of teaching the competencies needed for working with cases, providing guidelines prior to its implementation, and making the intended learning objectives transparent (Ulvit et al, 2022; Schneider, 2014).

In a previous research, which analyzed the reflections of health science teachers undergoing pedagogical training (Schwartzman et al, 2019), evidence was found that case based teaching activities were featured in first place. On a base of 396 written reflective practices linked to teaching strategies, on 162 occasions the use of cases is observed as the primary teaching activity. The researchers pointed out that this makes sense in epistemological terms because the prototypical way in which knowledge is constructed in the health field is through cases. Therefore, bringing "the case of a patient" into the classroom is a way to bring students closer to professional practice.

In addition, in health sciences, their value lies in the fact that they allow learning from patient's stories. These are often presented as unstructured situations, characterized by ambiguity, conflict or the absence of some information on the patient's problem, resembling professional practices in this field.

In this study we research the value and meaning that teachers give to the inclusion of cases in their classes. What decisions do they make when planning their teaching strategy? In what way do teachers of the Health Science field, who have received pedagogical training, conceive teaching with cases and use them in their daily practice?

#### 2 Method

This paper proposes a descriptive-interpretative qualitative study (Ramos Zincke, 2005) to analyze health sciences higher education teachers' plannings which include cases as a central part of the strategy.

This is a documentary research in its initial stages, which analyzes written productions of participants of a postgraduate teacher training programme who review and write about their actual teaching practice.

By means of a documentary matrix, the teaching strategies with cases are characterized, identifying the prevalence of some central features.

#### 3 Results

Of the 522 documents surveyed, we identified 125 written productions on teaching strategies that include the use of cases. In a first stage, we worked on the categorizing analysis of 24 of these documents. This allowed for the construction of a documentary matrix that systematizes the main dimensions to be considered in order to understand these didactic strategies: objectives, meaning of the inclusion of cases, elements to create them and aspects to define in the implementation of the teaching strategy. As the analysis of the universe of written productions progresses, the matrix will be revised iteratively and then a guide will be produced to facilitate the design of teaching strategies with cases in the health field.

### 4 Discussion and Conclusions

The detailed study of written portfolios of university health sciences teachers, produced in the context of a teacher training program, allows us to identify and characterize how case-based teaching takes place in their teaching practices. The first results allow us to recognize that the use of cases is a central part of the teaching strategies in this field, that the reasons given for doing so have to do with bringing the complexity of professional practice to the classroom and that the way in which cases are included in the classes varies greatly in terms of moments, format, type of approach and complementary activities.

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