

Emotions and Interaction Rituals in classes of Preservice Physics Teachers.

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Abstract. The physics classes are a space of social interaction that involves several aspects (relational, emotional, structural) that are manifested in the contingency situations experienced by the subjects that are interacting. In this process of learning there are micro social interactions, where emotions play an important role. We investigate how these interactions in microscale, or face-to-face¹, occur in physics classes, in light of the Theory of Interaction Rituals^{1,2}. In this way, we fetch to characterize the Interaction Rituals¹ that occur during the teaching and learning process in physics classes, and understand how these rituals contribute to the construction of physics concepts in class.

1 Introduction

The physics classes are a space of social interaction that involves several aspects (relational, emotional, structural) that are manifested in the contingency situations experienced by the subjects that are interacting. In this process of learning there are micro social interactions, where emotions play an important role. In this way, we raise to characterize the Rituals of Interaction¹ that occur during the teaching and learning process in physics classes, and understand how these rituals contribute to the construction of physics concepts in class.

2 Methods and Results

The research prospect the Emotional Climate of the Class⁴ using the Theory of Event³. We videotape some physical classes in practical activities made by preservice physics teachers in schools and identified some *salient events*⁴. These activities were analyzed from the Rituals of Interaction¹ point of view and try to

be characterized in terms of “types of interaction” accord to Goffmann propositions (2012).

We have identified that sometimes the teacher is between two paths: i) follow the didactic procedure and teaching a certain scientific concept or ii) save their *face* (Goffman

Our study shows that the teacher can subvert didactic precepts or the scientific concepts to which proposed, in a clear choice (of a non-rational order) to save his *face* (Goffman, 2012), showing that internal "choices" inherent to social encounter are independent of the will of those involved.

During the process of teaching and learning the teacher finds himself in situations where he puts into action various structures that are part of the school culture, of his own culture and of the scientific culture that are put into action in the face-to-face encounters. But these structures may also be changing during these encounters.

Thus, knowing better about these face-to-face meetings that are the physics classes, in which the objective is to make the students understand the scientific concepts, we can subsidize the formation of the future teachers on the process of transforming these meetings into moments successful.

3 Conclusion

In the educational process, the teacher's emotions are regulating much of the encounter and some structures stand out over others to save the *façade* (Goffman, 2012). And this is not a defect, but a human characteristic of sociability. To better understand or control it, we need to stimulate the teacher to reflect on their practice, performing metacognition and mindfulness activities to learn to master their emotions and stimulate students' emotions, to better develop their work of teaching physics and promoting the involvement of students.

References

- [1] Erving Goffman, *Ritual de Interação: Ensaio sobre o comportamento face a face*. Trad. Fábio Rodrigues Ribeiro da Silva. Editora Vozes, Petrópolis, RJ, 2012.

- [2] Randall Collins. *Interaction Ritual Chains*, Princeton Studies in Cultural Sociology. Princeton University Press, 2004.
- [3] William H. Sewell Jr. *Logics of History: social theory and social transformation*. The University of Chicago Press, Chicago and London, 2005.
- [4] Kenneth Tobin and Stephen M. Ritchie. Multi-Method, Multi-Theoretical, Multi-Level Research in the Learning Sciences. *The Asia-Pacific Education Researcher*, **21** (2012) 117-129.