

## “When will this class be over?”: using drawings to explore students (dis)-identification with Chemistry classes

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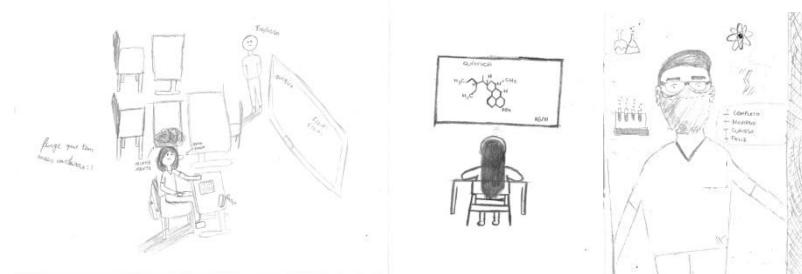
Keywords: Chemistry Identity, Drawing, Disidentification.

### Highlights

- Dissimilarities between who students want to be and how they are positioned as learners produce disidentification.
- Disidentification is expressed by boredom and frustration with Chemistry.

### Resumo/Abstract

This study analyzes how students represent themselves in Chemistry classes. The concept of identity is especially useful for this research purpose. Identity in educational research has been broadly defined as what “kind of person” one is in a given context <sup>1</sup>. By using drawing as its main data-collection strategy, this work intends to answer the following question: what drawings can reveal about the patterns of students identification with Chemistry classes? High-school students in 10 focus groups were asked to draw a self-portrait of them in Chemistry classes. We categorized 36 drawings and their interpretations by students as an expression of their identification with Chemistry. Results indicate that students express their affiliation with Chemistry classes in a continuum of frustration-neutral-enjoyment (Fig. 1). However, most students (n = 27) do not express identification with Chemistry, but actually show signs of *disidentification*, while fewer express neutral views (n = 6) or some form of interest (n = 3).



**Figure 1:** from left to right, the first self-portrait (frustration) represents a student with signs of “confusion” on her head; the second one (neutral) is a student sitting in her desk looking to the blackboard; the third one (enjoyment) represents a student surrounded by chemistry symbols and words like “curious” and “excited”.

The typical drawing is of an individual sitting in a desk with symbolic representations of being “sleepy”, “bored”, “confused”, and “frustrated” during lessons. We argue that these aversive emotional states in Chemistry classes might denote expressions of students’ disidentification and distancing from Chemistry. These negative signs might not only be the result of a perception of Chemistry concepts as meaningless, but also an effect of students forced positioning of behavioural compliance, passivity and individuality. Although these seem to be the implicit principles in the organizational culture of high-school Chemistry of what it means to be a good learner, students’ representations of disaffection with Chemistry indicate they might not want to fulfil that role. Thereby, the disconnection between how Chemistry classes are organized and who students want to be might contribute to produce these negative emotional states. By using drawings to reveal how students’ experience Chemistry in the classroom, this research suggests the need for Chemistry education researchers to go beyond the usual interventionist focus on gaining students attention by also trying to disentangle the nature of students negative reactions to Chemistry learning.

<sup>1</sup> GEE, J. P. Identity as an analytic lens for research in education. **Review of Research in Education**, 25, 2001.

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