Referentiality and normativity in trainee teachers' activity when viewing videos of teaching: trends in video-enhanced education and professional development

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Theoretical background

Understanding the nature of teachers' activity as they view a classroom video is a key pre-requisite to design effective video-enhanced devices and programs for teacher education and professional development (Gaudin & Chaliès, 2015). During the past decade, numerous studies have described this activity and modelized *cognitive categories*, *sense-making strategies, interpretative frames* and *sign levels* (e.g. Lussi Borer & Muller, 2014).

Hence, it seems that the cognitive dimension of video viewing activity may develop in different directions; but, nevertheless, (i) a common denominator can be derived: *description, interpretation and evaluation* (D-I-E), and (ii) there is a research lack toward *evaluation signs* which imply two specific dimensions: *referentiality* (past experiences that are linked to the present one – Lussi Borer & Muller, 2014) and *normativity* (normative registers enabling value judgments – Flandin, 2015).

Exploiting a semiotics framework, we intended to (i) describe trainee teachers' activity when viewing videos of teaching using the D-I-E model, in order to check its relevance and (ii) describe *evaluation signs* using generic semiological methods, in order to elaborate new systematic categories within the dimensions of *referentiality* and *normativity.*

Research questions

1. Is the coding reliability of the D-I-E model sufficient to validate it as a generic descriptive model?
2. What new categories can be derived from systematic semiological study to qualify the understudied dimensions of *referentiality* and *normativity* in teachers' viewing activity?

Method

We conducted an intervention study with 30 individual video sessions with novice teachers during their induction year. In these 45 minutes sessions, novice teachers were browsing on Neopass@ction (neo.ens-lyon.fr), an online video-enhanced teacher-learning environment designed to support novice teachers' analysis of typical classroom management problems. A researcher facilitated the elicitation of the experience they lived while browsing. Each session was recorded and transcribed *verbatim*. Two researchers analyzed and coded each unit of interaction with the D-I-E model. When the unit was coded as *evaluation*, the data was analyzed focusing on the dimensions of referentiality and normativity.

Results

We found that coding reliability of the D-I-E model is sufficient to validate it as a generic descriptive model. We found that 75% of the signs are *evaluation*, 15% *interpretation* and 10% *description* ones. Our analyzes showed that *evaluation signs* refer to i) five registers of reference: the filmed teacher activity and/or experience (using data of the self-confrontation interview), his/her own activity and/or experience as teacher, "typical activity and/or experience" of novice teachers, "professional standards or work

rules", i.e. expert teachers activity and/or experience and ii) four registers of normativity: efficiency, sustainability, acceptability and appropriability.

References

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