Approaches to categorization in education

Coordinated by Hélène Veyrac & Lara Laflotte

The situations of interaction in the teaching-learning context are discussed in this journal by observing how teachers view their students and vice-versa. These perceptions are considered from the perspective of the categorizations the students are subjected to, and conversely by the categorizations the teachers and their lessons are subjected to. After an editorial in which the specific organization of the dossier is explained, the first two articles, which are discussed in the third one, address the following questions: How do the teachers categorize their students? Do they use particular pedagogical routines linked to these categories? The following two articles broach categorization from the students' point of view and their meta-perception (how do they feel they are categorized by their teachers?).
The final article illustrates the categorization approach from an interactional perspective.

Summary of articles

■ **HÉLÈNE VEYRAC & JULIE BLANC**

Studying operative categories to analyze the activity of teachers

Categorization, as a basis of the thought process, is considered to be a means for describing part of the activity. A data collection protocol called "study of operative categories" makes it accessible to activity analysis. This protocol is in line with research into the categorizations of students by teachers and complements it with a phase during which the rules of action are expressed based on the "schemes" concept. With the help of a photo gallery of their class, 67 teachers from 6 high schools demonstrate their perception of the students by arranging the photographs in groups. These groups constitute the operative categories and the teachers then explain the specific teaching practices used for each category of students. The data collection and processing protocol, illustrated by an example of how student participation is regulated in the class, makes it possible to give precise indications on the method. The results show that different teachers who designate similar categories of students do not systematically evoke the same rules of action. They also show that a teacher mobilizes multiple characteristics to describe the students in his/her class. Finally, they demonstrate a certain specialization in the way teachers view their students: one group of students is perceived based on certain characteristics which are not pertinent to another group of students. This approach complements those aiming to describe the differentiated treatment of students by teachers. Applied to other operative categories, it could enhance the field of activity analysis, particularly in terms of understanding intra-individual variability.

■ **LARA LAFLOTTE**

Analysis of the links of students' categorical typicity with classroom interactions' frequency and quality

This text aims to assess student categories in teachers' cognitions as well as the effects of students' closeness to these mental categories on classroom interactions. Two studies are conducted in the canton of Geneva with primary school teachers and their class. Study 1 invites twenty-three teachers to perform three tasks of student categorization. Eight study-1-teachers participated to study 2. In that study, teachers are observed and filmed during teaching to assess classroom interactions in relation to students' categorizations and categorical closeness. Study 1's results verify the existence of three to five students' categories depending on the used research method and show the presence of prototypical students within these categories. Study 2 shows five types of classroom interactions identified through factor analysis. Regression analysis demonstrate that the students' categorical typicity has a weak impact on student-teacher classroom interactions. These observations rise questions about teacher training and allow different research perspectives.

- **ROLAND GOIGOUX**

The schemes of regulation of the activity of teachers

In this article, the author comments and expands on two of the contributions contained in the dossier entitled "The Categorization of Persons in Teaching and Learning". These two contributions deal with the cognitive functioning of teachers when they are interacting with their students. The author suggests several ways to overcome the pitfalls he identifies and introduces some complementary theoretical elements. He concludes by illustrating his recommendations with an example of empirical research on how teachers regulate their action according to that of their students.

- **HÉLÈNE VEYRAC, AUDREY MURILLO, JULIE BLANC & PHILIPPE SAHUC**

How do students categorize their lessons/teachers? Studying operative categories in a class of 13 - 14 year-old agricultural education students

In this exploratory research we mobilize a new tool, developed in the field of activity analysis which involves asking students individually, to categorize their different lessons. All the 13 – 14 year old agriculture students in the same class produced, according to their own criteria, categories of lessons/teachers on 4 occasions during the year. This study thus helps to understand how the students perceive their school environment. The initial results would suggest that for the students their lessons closely linked to the teacher who takes them. The item" lesson-teacher" appears. As the year progressed, results show an evolution in the lesson-teacher perception: initially centered on the subject, then the activity (classroom rules, student activities) and finally on the effects on the student (in terms of experiencing attraction/rejection). Categories relating to academic success and the effectiveness of the teachers are rarely evoked. A qualitative analysis of the categories produced by certain students reveals rationalities and traces of development that open up perspectives for research in connection with the study of categorizations.

- **STEPHEN GAGNEPAIN**

Metaperception in schools context: when students anticipate teacher's categorization

Métaperception research's (i.e., beliefs that an individual develops about the perception of others about him) in school context are uncommon. Research about student's metaperceptions could be used to characterize the influence of variables (amount of informations, etc.) involved in teacher's expectations and judgements. The proposed research examines students' metaperceptions when relying on a teacher's beliefs. The research compares teacher's categorization of students and the students' métaperceptions. Three measures related with progressive presentation of information on teacher's categorization show convergence between student metaperception and teacher categorization: these measures highlight the variation in the meta-accuracy and group membership metaperception of students (i.e. the categories selected by the student as representative of the teacher's perception of each measure). The results highlight that the majority of students do not accurately identify the teacher's categorization. This inaccuracy is not dependent on the information they have on the categorization of the teacher. The analysis of the convergence of student's metaperceptions with the teacher's categorization shows that the progressive provision of information on teacher's categorization does not significantly influence meta-accuracy of students. Despite this, the analysis of how students change or stabilize their métaperspectives positions during experimental modalities shows that the proportion of students who modulate their group membership metaperception varies significantly between experimental modalities. The information available on teacher's categorization influences group membership metaperception of students. Nevertheless, this influence is moderate.

- **MARIANNE ZOGMAL & LAURENT FILLIETTAZ**

Categorization, from cognition to interaction

The purpose of this conclusion is to return to some of the theoretical presuppositions conveyed by the texts presented in the context of this volume, and to initiate a dialogue with an alternative perspective, that of interaction analysis. Despite elements of variation and even controversies, the articles converge, in some respects, on how to conceptualize the topic of categorization as a phenomenon of cognitive nature. They also take a clear stand, on the ways in which these cognitive phenomena articulate themselves with the concepts of action, temporality and language, in particular. After having identified these transversal elements that enable to "categorize" the texts produced, we propose to consider the topic of categorization as contingent on the conditions of its implementation in the verbal and nonverbal interactions. A distinct analytic lens is then proposed,

which leads to overturning, or at least putting in perspective the presuppositions of a cognitive approach to categorization. To illustrate our point, we conclude this article by presenting some empirical data pertaining to the field of early childhood education. We show that categorization processes are at work permanently, and act dynamically as conditions for coordination in action.

Varia

■ **MATTHIEU LAVILLE**

What is the occupation of teacher-referent ? Cartography of work

Since the beginning of the 2006 academic year, teacher-referents have been responsible for following the journey of the schooling of students with disabilities by coordinating the actions of various partners via the ESS meetings ('Équipes de suivi de scolarisation' in French). Based on certain sociological approaches of professional groups and on analysis of work, this article aims to study the concrete work of the teacher-referent. It proposes to evaluate its role against the requirements framing this profession. The article will then outline the steps that marked the gradual transition from an exploratory ethnography to the building of a nationwide questionnaire. The results highlight the sometimes differing interpretations of these requirements and result in a cartography of the main areas of work. It finally allows us to capture the determining factors which most influence the prevalence of ESS programming.

■ **LAURENT LESCOUARCH & FILIPPO PIRONE**

The new boarding schools in education action zones. Contributions and limits of contemporary pedagogical school support projects.

In this paper we analyse the pedagogical pattern offered by those boarding schools which have recently been created in education action zones as a new school support shape. If under official texts they are supposed to grant an ideal educational environment for students coming from disadvantaged social and cultural backgrounds, these boarding schools aim at reinternalizing learning activities which have been externalised from educational system for a long time. Our analyses lean on a pedagogical and sociological survey focalised on the effective implementation in these boarding schools of school support activities aiming at socializing students to school work and to "being a student". We have also analysed how school actors daily mobilise these activities. The results of this survey show that these new boarder schools share with contemporary school support projects the same limits: not very effective in ensuring continuity between transmission and learning, they mostly remain beneficial only to those students which already own some socio-cognitive dispositions as pedagogical autonomy and familiarity with school culture.

■ **JEAN-PHILIPPE MAITRE, MICHAËL HUCHETTE & ÉRIC BRUILLARD**

How to analyze what teachers do to prepare their lessons ? Sketching a conceptual frame

Preparing their lessons, teachers produce material and media from resources that are their own but also found on the Internet, or by asking colleagues, etc. This ordinary activity is in fact complex and poorly documented. How teachers start the preparation of their lessons? With what materials? How do they find and/or build what they use in class? How this material is (or not) recycled years after years? This article presents few theoretical guidelines to analyse these questions. Its content fit in the ReVEA project (supported by the ANR) that is briefly described. Our arguments are supported both by the literature – rare on the subject – and data, gathered through interviews with French technology secondary school teachers and high school technological and engineer sciences teachers. Our conclusion raises the question of the systemic aspect of the organization of this part of the teachers' work, opening new perspectives of research.