## ANNALES de DIDACTIQUE et de SCIENCES COGNITIVES, Volume 27, 2022, IREM de STRASBOURG ABSTRACTS

**CAROLINE BULF.** QUELS GESTES PROFESSIONNELS D'ENSEIGNEMENT AU SERVICE D'UNE COMMUNAUTE DISCURSIVE GEOMETRIQUE SCOLAIRE ?

**Abstract.** Which professional teaching actions in the service of a school geometric discursive community? Our work seeks to describe professional teaching actions in geometry classes. We rely on the analysis of a collection of observations of sessions in a 6th grade class (pupil ages 11–12 years) conducted by the same teacher during the same school year, based on a progression designed collectively and collaboratively within an IREM group. In our work, the study of the links between teaching and learning in the geometry class is examined through the relations between professional action and the School Mathematical Discursive Community.

CARINE REYDY. ÉTUDE DE GESTES PROFESSIONNELS DIDACTIQUES D'ENSEIGNANTS DE COURS PREPARATOIRE EN SEANCE DE RESOLUTION DE PROBLEMES.

**Abstract. Study of professional didactical teaching skills of first grade teachers in problem solving session.** In this work, we question the practices of three first grade teachers in a basic problem-solving session. We identify the teaching skills and postures that emerge in the three practices based on the tools and methods developed by Bucheton. To explain the deep logic underlying the choices of these teachers, we analyze what each of them deploys in order to have a vision of the representations and strategies mobilized by their students to solve the problem posed. We specifically question certain didactical teaching skills that we see emerging and relate their capacity for transferability in a particular training framework.

**CHARLOTTE DEROUET.** CARACTERISATION DE DEMARCHES DE MODELISATION PROBABILISTE.

**Abstract.** Characterisation of probabilistic modelling approaches. The modelling process is an essential part of any probabilistic approach. In this article, we propose three different categories of modelling approaches involving a probabilistic model that can be encountered in

French secondary education: one based on the Laplacian approach to probability, another on the frequentist approach and the last one based on informal statistical inference. Based on the work of modelling of the German current, the objective of this article is to characterise the three categories of approaches and to identify what place and role statistics plays in these categories. The theoretical reflection is illustrated by an *a priori* analysis of examples of modelling problems. The characterisation is based on the different stages of the chosen modelling cycle and the associated working and model assumptions.

**CAMILLE DOUKHAN.** COMMENT L'ARTICULATION ENTRE THEORIE DE L'ACTIVITE ET THEORIE ANTHROPOLOGIQUE ECLAIRE LA TRANSITION SECONDAIRE-SUPERIEUR : LE CAS DES PROBABILITES CONDITIONNELLES

Abstract. How networking Activity Theory and Anthropological Theory of Didactics sheds light on the secondary-tertiary transition: the case of conditional probability. The study of the secondary-tertiary transition requires taking into account institutional evolution but also the point of view of the actors. For this reason we have chosen to network the activity theory adapted to the didactics of mathematics with the anthropological theory of the didactic. In this article we present this networking and illustrate its use through the example of conditional probabilities. We propose to operationalize the complementarity of these two theories by making use of the concept of type of tasks' variations that we define and illustrate through the example presented. The new theoretical framework constructed allows us to describe praxeologies taught while taking into account the cognitive and mediative dimensions of the subject's activity.