

Re(s)ources 2018 International Conference

28-29-30 May 2018, French Institute of Education, ENS de Lyon, France

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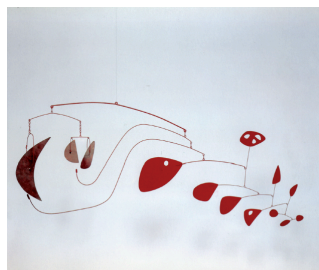
Understanding teachers' work through their interactions with resources for teaching: ten years after the emerging of the documental approach to didactics, work in progress, theoretical networking, international enlightening and programs of research

Le développement de l'Internet, et, comme conséquences, le foisonnement de ressources numériques et l'émergence de nouvelles formes de travail collectif, conduisent à des bouleversements des formes de l'enseigner et de l'apprendre. Ces bouleversements ont suscité de nouveaux besoins théoriques : comment analyser le travail que les professeurs conduisent pour concevoir la matière de leur enseignement ? Comment penser les relations entre le travail individuel et le travail collectif des enseignants ? Comment suivre, dans la durée, les processus en jeu ?

Ces besoins ont conduit, il y a dix ans, dans le domaine de l'enseignement des mathématiques, à la proposition d'une nouvelle approche théorique, *l'approche documentaire du didactique*. Cette approche s'est développée en relation avec d'autres approches du domaine, en France et au niveau international (Gueudet, & Trouche, 2009). Elle a nourri une vingtaine de thèses, a rencontré d'autres cadres de recherche à travers le développement de programmes de recherche au niveau national (ANR ReVEA en France par exemple) ou international (projets européens comme MC2 ; projets en Argentine, au Brésil, en Chine, au Liban ou encore au Sénégal). Le domaine d'application initial, l'enseignement des mathématiques au second degré, a été étendu, de la maternelle à l'enseignement supérieur, et pour d'autres disciplines : langues, biologie, chimie, physique.

Dans cette dynamique, l'approche s'est enrichie de nouveaux concepts (ressources filles – ressources mères, méta-ressource, affinité disciplinaire, incident documentaire, expertise documentaire ou encore trajectoire documentaire) ; la méthodologie d'investigation réflexive s'est développée dans plusieurs directions, en particulier pour l'analyse des formes collectives de travail documentaire. Dans cette dynamique aussi, de nouvelles questions sont apparues, mettant en évidence la nécessité de nouveaux programmes de recherche. C'est pour faire le point de ces avancées et de ces questions qu'est organisé ce colloque de trois jours

The development of the Internet and, as consequences, the abundance of digital resources and the emergence of new forms of collective work, lead to new developments and uncertainties in teaching and learning. These upheavals have given rise to new theoretical needs: how to analyze teachers' work when they prepare for their teaching? How to conceptualise the relationships between individual and collective work? How to follow the related processes over the long term?



Ten years ago these theoretical and practical needs led to the proposal of a new frame, the *documental approach to didactics*, in the field of mathematics education. This approach has developed in relation to other approaches in the field, in France and internationally (Gueudet, & Trouche, 2009). It has fostered about twenty theses, crossed other theoretical frames throughout the development of research programs at the national level (ANR ReVEA in France for example) or international (European projects such as MC2, projects in Argentina, Brazil, China, Lebanon or Senegal). The initial field, mathematics at secondary school, has been expanded from Kindergarten to University, and to other fields of application: languages, biology, chemistry, physics.

Alongside these developments the approach has been enriched by new concepts (daughters resources - mother resources, meta-resources, disciplinary affinity, documental incident, documental expertise or documental trajectory); the methodology of reflective investigation has developed in several directions, in particular for the analysis of collective forms of documentation work. At the same time new questions have emerged, highlighting the need for new research programs. It is to take stock of these advances and questions that this three-day conference is organized,

Deadline for contributions: October 15th, 2017

Elements of program

The conference will propose 7 plenary lectures, a panel discussion and 4 working groups

Plenary lectures

Kenneth Ruthven (University of Cambridge, UK)

The construct of 'resource system' as an analytic tool in understanding teachers' work

Ghislaine Gueudet (University of Western Brittany, France)

Studying teachers' documentation work: emergence of a theoretical approach

Christine Proust (CNRS, France)

What is the reality of teacher's work, behind the design of mathematics exercises? Lesson from the scribal schools, 4000 years ago

Janine Remillard (University of Pennsylvania, USA)

Teachers' Interactions with Resources Across Cultural Boundaries

Michèle Artigue (University Paris Diderot)

Reflecting on a theoretical approach from a networking perspective: the case of the documental approach to didactics

Takeshi Miyakawa (Joetsu University of Education, Japan) & Binyan Xu (ECNU, China)

Teachers collective work inside and outside school as an essential spring of mathematics teachers' documentation: Japanese and Chinese experiences

Luc Trouche (ENS de Lyon, France)

Evidencing the missing resources of the documental approach to didactics, towards new programs of research.

Panel discussion

Chaired by Birgit Pepin (Technical University of Eindhoven, Netherlands)

Teachers as designers: an international perspective

Working groups

WG 1. Coordinators: Jana Trgalova (University of Lyon, France) & Moustapha Sokhna (Université Cheikh Anta Diop, Dakar)

Teachers' resource systems, their structure, their evolution, their mapping

WG 2. Coordinators: Catherine Loisy (ENS de Lyon, France) & Hussein Sabra (Université de Reims, France)

Analyzing teachers' work with resources, methodological issues

WG 3: Coordinators: Sebastian Rezat (University of Paderborn, Germany) & Carole Le Henaff (University of Western Brittany, France)

Instrumentation, competencies, design capacity, expertise

WG 4: Coordinators: Paul Drijvers (Utrecht University, the Netherlands), Verônica Gitirana (Federal University of Pernambuco, Brazil) & John Monaghan (University of Agder, Norway & University of Leeds, UK).

Transitions towards digital resources: change, invariance, and orchestration

Scientific organization

Scientific committee

J. Adler (University of Witwatersrand, South Africa), P. Drijvers (Utrecht University, Netherlands), V. Gitirana (Universidade Federal de Pernambuco, Brazil), G. Gueudet (Université de Bretagne Occidentale, France), C. Le Henaff (Université de Bretagne Occidentale, France), J. Monaghan (University of Agder, Norway & University of Leeds, UK), B. Pepin (Technical University of Eindhoven, Netherlands), J. Remillard (University of Pennsylvania, USA), S. Rezat (Universität Paderborn, Germany), H. Sabra (Université de Reims, France), M. Sokhna (Université Cheikh Anta Diop, Sénégal), L. Trouche (ENS de Lyon, France), & B. Xu (East China Normal University, China)

Organization committee

Chaired by S. Soury-Lavergne, IFÉ, ENS de Lyon

Agenda

October 15th 2017, deadline for initial submissions

December 1st 2017, revisions requested sent to authors

January 15th 2018, deadline for revised version submissions

February 1st 2018, answers to the authors

February 15th, early registration

April 15th, deadline for registration

May 28-29-30th 2018, Re(s)ources conference

September 15th 2018, final versions of the texts for the proceedings

Contact: resources-2018@sciencesconf.org

