The individual and collective work of teachers on educational resources, from ReVEA to Renoir-IUT

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In this research:

• Not interested by supposed “effects” on learning
• Absolutely no opinion about educational resources quality

The issue

• How and why teachers select, modify, revise, share, discuss educational resources?
• Better understanding of a phenomenon in evolution and of not well known processes
• Lively resources for teaching and learning:
  • Not about resources but about actors
  • Lively because of the communities that support them
Why it is important?

• Increasing responsibility of teachers concerning educational resources
  • Less external authority guarantee
  • Less or no validation, legitimization?

• Key importance of resources in education
  • New subjects, new knowledge, multiple views

• Increasing duration of preparation
  • New pressure, students, parents... expect visible quality of documents (presentation and readability), up to date data...
Teachers’ role

- respect national programs (prescribed curricula)
- select educational resources
- adapt them finely to the group they have to manage

- Teachers and Educational resources
  
  between end-of-pipe adaptation
  and collective design
ReVEA: an ANR project (National agency for research)

- 4 research laboratories
  - STEF, EDA, CREAD, S2HEP (et ifé)
- Secondary teachers (Collèges, lycées, BTS)
  - Mathematics / English / sciences (physique et SVT) / STI
  - Exploration in BTS (bank) and informatics
- Also contracts with Ministry of education
  - Several reports, Gtnum6 (WG digital 6) about digital resources
  - Last one (last week) Xavier Levoin Changes in the digital resources landscape in the light of the BRNE
An analysis around 4 dimensions

1. Personal and collective characteristics
   • Values (hacker or tuner) / Experiences, beliefs, knowledge / personal interests
   • Links with local or distributed collectives

2. Processes
   • Inheritance (transmission) / Participation / Trust networks / Collections
   • Digital - paper: shelves, catalogues, PIM

3. Environments and infrastructures
   • Individual / school / regional or national

4. Temporalities
   • Career (continuous) / planning time / preparations for a session
Activity theory

• Continuous process of documentation
  • Reading books, magazines, TV, collecting objects...

• Specific moments of preparation
  • Using computers, search engines...
  • *YouTube* seems more important than *TxtB*

• Articulate
  • personal values,
  • experience and teaching knowledge,
  • Characteristics of environment (local and global, infrastructure...)

Activity theory (Leontiev)

• Activity / Motive (WHY)
  • Interviews, Personal Journal and Logbooks (*observation not possible*)

• Action / Goal (HOW)
  • (repeated) Interviews / Observation

• Operation / Condition (Process / affordances)
  • Record and think aloud protocol
    Screen capture for a specific task, and sound (recording teacher commentaries during his activity)
First results about teachers’ work on resources

- Diversity
- Continuity of practices
  - Not productive to focus on opposition paper / digital
- At the heart of teaching profession
  - Very or even strictly personal
  - continuous monitoring process
  - Each resource choice may have a lot of explanations
Teachers’ important characteristics

• Oppositions
  • Novice / expert
  • Hackers (proactive in research and bypasses of possible obstacles) and tuners
  • Oriented towards their subject or their students

• Construction of a professional identity in relation to
  • professional literature
  • theories and constructed beliefs (experience)
  • personal values, passions, interests (aesthetic quality)...

• Professional and personal career

• PIM (personal information management)
  • Find (select) / Store (organize) / Retrieve
Four main processes

• Inheritance (transmission)
  • Object or situation (professional gesture or maniè re de faire)
  • Initial training, beginning in the profession

• Participation
  • with colleagues of the same school
  • Unions / communities of practice...

• Construction of the trusted network
  • sources considered reliable and important (people, works, sites, etc.)
  • most teachers do not pay attention to copyright laws

• Collections
  • Collected, stored and organized items
  • Available for course preparation

  Catalogs (places / processes) and shelves
Teacher

Presentation in classroom (diaporama...)

Lecture (text)

Little used and unused model

Types of resources searched

Planned activities

Progress in class

frame

Partial scenario

Teacher

Students documents
Key role of photocopies

• Photocopies number is increasing
  • Central for teachers (see Cuban)

• Relation to writing
  • Make students write
  • Overcoming their lack of writing skills

CFC: a growing number of reports

• Copies declared: 1.8 M (2012) and 2.7 M (2013), + 50%.
• Regarding school and extracurricular documents
• Distribution stable but very uneven among publishers (8)
CFC Data Survey (Julien Boelaert and Mehdi Khanenoubi)

• CFC
  • Centre français d'exploitation du droit de copie
  • French Center for the Exploitation of Copyright

• Negotiated fees redistributed to photocopied publishers and authors
  • Reprography: € 32 million (in 2013)
  • Digital copies: € 17 million

• Purpose of the study
  • What photocopies? What changes? What does the CFC data provide?
CFC data
CFC surveys
Number of declared acts, by publishers (all publishers, 2012 and 2013 surveys).

The best sold textbooks are also the most copied
Three metaphors according to Mark Bernstein (1993)

The work of the mine (Mining)
The work of the factory (Industrial organization)
Farm work (agriculture)

What teachers will do?
Questions

• Towards an observatory of educational resources
  • Level (national, regional...)
  • Which data? Status, automatic collection?
  • Open data (http://www.etalab.gouv.fr/)

• Copy of resources
  • new compound documents (including several sources)? Reasonable trend to identify
In preparation
Report and
Book about
Teachers’
collectives

Totem (animal)
and position

Aurélie Beauné et
Xavier Levoin
Three interrelated scientific objectives and 3 approaches (didactic, socio-economic and educational) in tension.

1. Characterizing the interactions between the actors involved in the production of educational resources
2. Analyzing the global offer of educational resources and its effects in terms of mediation and relation to knowledge
3. Establishing models for the selection, design and transformation of resources, resource systems and their evolution

4 research laboratories: ACTÉ, ADEF, EDA, LABSIC
Leçon en plein air dans les environs de Jalalabad, en Afghanistan, le 1er décembre 2013 (AFP / Noorullah Shirzada)
Tensions around resources

• Control of (by) resources
  • Pedagogical freedom and infrastructure
  • Innovators et consumers

• Two temptations
  • Hiérarchy of pedagogies
  • Reduction to technique
    • Medical metaphor, best method

• Models (school, university) in question
  • Democratization, enterprise and employment, chronic renewal of knowledge....
  • What are the medium-term effects? (franchised establishments, teachers' downgrading, new professions?)