
LIGOZAT, Florence

Abstract

In the history of the modern school systems in Europe, the development of the didactiques des disciplines (subject didactics) originates in 1) the building of “disciplines” (school subjects) as social organisations aimed at producing and diffusing knowledge and 2) the empowerment of the secondary school teachers through professional associations (Schneuwly, 2011). Subject didactics were thus born as practices of teaching a given discipline and attempts of theorising such practices. Against this background, mass schooling reforms in the 60’s -70’s in France and their unexpected side effects have prompted a significant turn for the “didactiques des disciplines” (Caillot, 2007; Ligozat & Leutenegger, 2012). They became descriptive and explicative research fields about the irreducible role of the knowledge content in teaching and learning. In this turn, research in didactics of mathematics played an important role in theorising 1) the knowledge transposition inherent to the didactical institutions (Chevallard, 1985/1991; Chevallard & Bosch 2014) and 2) the didactical contract as a framework for understanding the […]

Reference


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Comparative didactics: A reconstructive move from subject *didactiques*

Florence Ligozat
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Budapest, 8-11 September 2015
The French-speaking Tradition for *Didactiques*

*Les didactiques*: a myriad of research fields attached to the school subject matters and their relative academic disciplines

As many didactiques as there are subject matters taught at school?

Common features of the *Didactiques* developed in France (and certain French-speaking countries):

- The quest for an autonomy from the methods and results produced by cognitive sciences, sociology, etc. (rejection of “applicationism”)
- A problematisation of the content to be taught (e.g., why, what from, what for, ..etc., epistemological, sociological, historical issues)
- A study of the consequences for teaching and learning in analyzing the existing teaching designs or in building new ones (*ingeniered lessons*) to be tested in classrooms.

(Caillot 2007, EERJ)
Overview

• A 1\textsuperscript{st} paradigmatic shift (70-80’s)
  – Form psycho-pedagogy to subject \textit{didactiques}

• A 2\textsuperscript{nd} paradigmatic shift (2000's)
  – Comparative didactics as a reconstructive move for studying the [teacher-student-content] system
The rise of subject didactics in the 70's - 80's

A FIRST PARADIGMATIC SHIFT
The Case of Mathematics

Late 70’s
« Didactique des mathématiques »
Brousseau , Chevallard (France)

Study of the epistemological and institutionnal conditions for teaching and learning a mathematical content

Set theory
Bourbaki, Dieudonné
A structuralist unifying view of mathematics as a language
Structuralism

Genetic Epistemology
Piaget, Inhelder (Genève)
Adaptive model of knowing (Subject-Object)

Human development
Biological, Language, Cognitive, Affects... etc.

Social Psychology
Doise, Perret – Clermont (Genève)
Socio-cultural model of knowledge acquisition

« New maths » reform
Curriculum reform based on set structures
A « language » isolated from problems and practices

Psycho-pedagogy
Vinh-Bang, Morf, Pauli (Genève)
Teaching methods derived from psychology
The Case of Physical Education

Early 80’s
« Didactique de l’éducation physique et sportive »
Marsenach et Merand, (France)

Physical Education as a recognized subject matter in the national curriculum in France

Study of the content enactment in ordinary classrooms with respect to the epistemological features of what is taught and learned
(by Chantal Amade-Escot)

Process-product research
Pieron, Brunelle (Belgium), Québec
Behaviorist analysis of teaching in PE

Ecological paradigm
Siedentop, Tousignant (Québec)
In situ analysis of students teacher negotiations

Human development
Biological, Language, Cognitive, Affects...etc.

Motor learning
Famose; Schmidt
A cognitive approach of motor task
PE is derived from sport psychology

Psycho-pedagogy
Teaching methods derived from motor learning psychology

(by Chantal Amade-Escot)
New Theoretical Frameworks Emerged...

- **Didactical Transposition of knowledge** (Chevallard 1985/1991)

- **Didactical situations, Milieu & Didactical contract** (Brousseau 1986/1997)

Borrowed and/or reworked by others subject didactics

- In PE didactics: transposition, didactical contract, situation, milieu
- In French language didactics: transposition, institutionalisation, textual genres
- In social sciences didactics: disciplinary contract
- In sciences and technology: referential social practices, obstacles
- (etc.)
The Field of the Subject *Didactiques*

- Mathematics Didactics
- French language Didactics
- Social Sciences (History, Geography, Citizenship) Didactics
- Second language Didactics
- Science (Biology, Physics, Chemistry) Didactics
- Technology Didactics
- Physical Education Didactics
- Arts Didactics

[...]
New issues

• The division of school subjects as the ground of the Didactiques (or subject didactics)

• The teacher's intervention in the classroom

• The students' learning through the school subjects
Comparative Research in Didactics

2002: “Vers une didactique comparée”, special issue, Revue Française de Pédagogie (Mercier, Schubauer-Leoni & Sensevy)

2006: the “Association pour les Recherches Comparatistes en Didactiques” (ARCD, Lyon) initiates a dialogue among researchers involved in (subject) didactics.

➢ Aims

• “The construction of a scientific community concerned by issues in didactics at large;

• The inscription of didactical issues, relating to the individual, institutional and social conditions of transmission and sharing of knowledge (know-how and know-what), within the field of social and human sciences”.

(Translated from the By-Laws of the ARCD)
Comparative Research in Didactics

But a debate is open within the ARCD:

• Favor horizontal discussions between subject didactics in order to identify their complementarities and reciprocal needs of each other? → “interdidactics”

and/or

• Elaborate a bottom up reconstructive move about teaching and learning from the various conceptualizations made by the subject didactics? → “comparative didactics”
La Didactique?

“a science of the conditions of diffusion of knowledge in any institutions, such as a class of pupils, society at large...etc. More particularly didactics [sic] is the scientific study (and the knowledge resulting thereof) of the innumerable actions taken to cause (or impede) the diffusion of such and such a body of knowledge in such and such institution”

The domain of study of la didactique is made of didactical facts: “any fact that can be in some way looked at as the effect of a socially situated wish [purpose] to cause someone learn something”

(Chevallard, 2007, EERJ).
Relationships between Comparative Didactics & Subject Didactics

Investigation of classroom practices
Specific and generic actions within the didactical system

Investigation of frameworks
Specific and generic analytical categories
- selected from subject didactics
- derived from human and social sciences

(by Chantal Amade-Escot)
TOWARD A 2ND. PARADIGMATIC SHIFT
Perspectives for research in Comparative didactics

• The didactical system as a whole theoretical objet of study in which the didactic transposition occurs

• The modelling of the agency of the teacher and the students about the contents taught and learnt - a joint action (contract - milieu)

→ Describe content-specific didactic phenomena
→ Elicit generic features of teaching and learning practices
→ Improve teaching interventions on the ST - content relationship (collaborative research)
A triadic relationship as the main research concern
Examples of Theoretical Elaborations

Anthropological Theory of the Didactics (Chevallard & al.)

- An epistemological program about knowledge diffusion in society
  - Knowledge as praxeologies (techniques and discourses)
  - Institutional transposition of praxeologies

Joint Action in Didactics (Sensevy et al., Schubauer-Leoni et al., Amade-Escot et al., Mercier et al)

- A didactical program about the content in teaching and learning
  - historic-cultural perspective
  - transactional perspective
Social practices
*academic, artistic, professional, sports, craft, etc*

Bodies of knowledge (practical / theoretical)

Content - to - be - taught
(Knowledge, curriculum, subject, competences, etc)

Joint actions
Didactical contract - milieu
Meaning-making
(Meso-topo-chono-genesis)

SET of TASKS, PROBLEMS

 Compatibility?

Didactic system revisited

TEACHER

STUDENT(s)
Comparative Didactics - Realm of Investigation

Look at the institutional boundaries in which teaching and learning take place:

- **Subject matters as social institutions** of ways of doing/thinking about the world

- **Forms of schooling at different stages** (pre-school, primary, lower/upper secondary) but also vocational training, leisure & sport clubs, nurseries ...etc.

- **National contexts of schooling and curriculum choices**
  - *e.g.*: Project "Teaching Traditions and Learning" (Uppsala, Stockholm, Toulouse, Genève, Rennes) 2014-2018

→ Outline the generic part of teaching and learning practices in comparing their specific forms (empirical)
Scale of socio-historic determinants (Chevallard, 2007)

National Educational Contexts

School structures

Pedagogical trends

Curriculum and School Subjects

Topics

Didactical system

Levels of constraints specific <-> generic

Research plan Ligozat (2008)

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Classe de Joëlle, O1 CE2-CM1
Classe de Magali, 74 CM1
Classe de Clarisse, Genève 6-7ème P
Classe de Claudia, Vaud 6ème P
New Challenges

• The encounters with other didactic research traditions (in Europe and World wide)

  – **Epistemological issues**: Is a "common ground" possible to overcome fragmentation?
    • Not a common theory but a common ground of research concerns attended from different theoretical perspectives

  – **Socio-historic-political issues**: Role of national choices, interests and problems related to education (and available fundings!)
    • How do they shape our research questions?
    • Which questions may be burred or underestimated (which dimension of the didactic system)?
Beyond fragmentation ...

Compare, relate and/or combine theoretical frameworks through empirical comparative works
Thank you!

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