

Modelsu of comprehensive school,
student academic achievement
and civic attitudes :
evidence from international
surveyss

Improving Education conference – 1/12 Stockholm
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- Educational policies at middle school level:
 - Political science background--
 - controversial topic (comprehensive vs tracking system),
 - new educational policies
 - New typology : not one but several models of comprehensive school - New dataset
- Relationships between organization of middle school and :
 - Student academic achievement
 - Student civic attitudes (ethnic tolerance...)

Comprehensive and tracking
systems : controversial debate
and new policies

Evolutions of comprehensive school

- In comprehensive school systems
 - Modern adaptation : automatic promotion, individualized pathways with common objectifs (FI, SE, Japan...)
 - New forms of tracking ?
 - New tracks for gifted students : extended gymnasium (CZ), elitist magnet schools or specialist schools (England)
 - New tracks for low-performing students : FR, England (« entry-level awards », *Key Stage 4*, 14 years-old)

In tracking systems

- The PISA 2000 choc :
 - Disparities in student outcomes
 - Weak elite (N5)
- In tracking systems :
 - Experimentation on comprehensive school in DE and AT, LU
 - New tracking systems (CZ...) : more national guidance to prevent schools from developing differentiated pathways

Beyond traditional dichotomy

- Traditional dichotomy between comprehensive school and tracking system
- Several policies and practices should be taken into account when considering student heterogeneity :
 - Length of common curriculum
 - Importance of repetition
 - Ability-grouping practices
 - Individualized teaching practices
- Hypothesis : several models of comprehensive school associated with various student achievement and attitudes outcomes

New investigations : evidence from PISA and Civic Ed

Research methodology

Global methodology

- Aim of the research :
 - describing the statistical relationships student achievement (PISA-OECD) and civic attitudes (Civic Ed, IEA) and educational policies, regarding the organisation of middle school (new dataset)
 - No causal relationships, statistical associations
 - Hidden factors :
 - Control variables such as GNP, social inequalities, democratic tradition...
 - Research also investigated the impact of decentralization, school autonomy, school choice policies, private sector development...
- Explanatory variables : the building of a new dataset on educational policies at middle school level
- Outcomes variables : PISA and Civic Education survey

Building a dataset on educational policies

- Information exists on school system features.
 - Mainly quantitative information
 - Reliability and comparability problems
 - Pb of temporality
- Building a new dataset :
 - Typological indicators : 50 variables on 40 countries

Why typological indicators ?

- Describe plurality of institutional configurations
- Several reasons for developing qualitative indicators :
 - Some dimensions of the phenomenon to be described are not quantitative (decentralization)
 - Capturing several dimensions of a phenomenon
 - Mixing several phenomena : systemic variables

Capturing several dimensions

Example : typology on ability-grouping

- TIMSS-PISA variables : % on schools in which ability-grouping is occurring, for student aged 15 or at G8 level

- Slavin (80's) : the more the grouping can fit pupil skills in a specific subject, the more effective teaching will be. Flexible, intra-class grouping in a specific subject is more efficient than permanent grouping for all subjects

- Several dimensions :
 - numerical importance of ability-grouping
 - and types of grouping : intra vs inter-classes, flexible or permanent grouping, related to all subjects or some subjects

- A typology :
 - **Mixte-ability classes** » : no ability-grouping at ISCED 1 and 2 levels (some nordic countries)

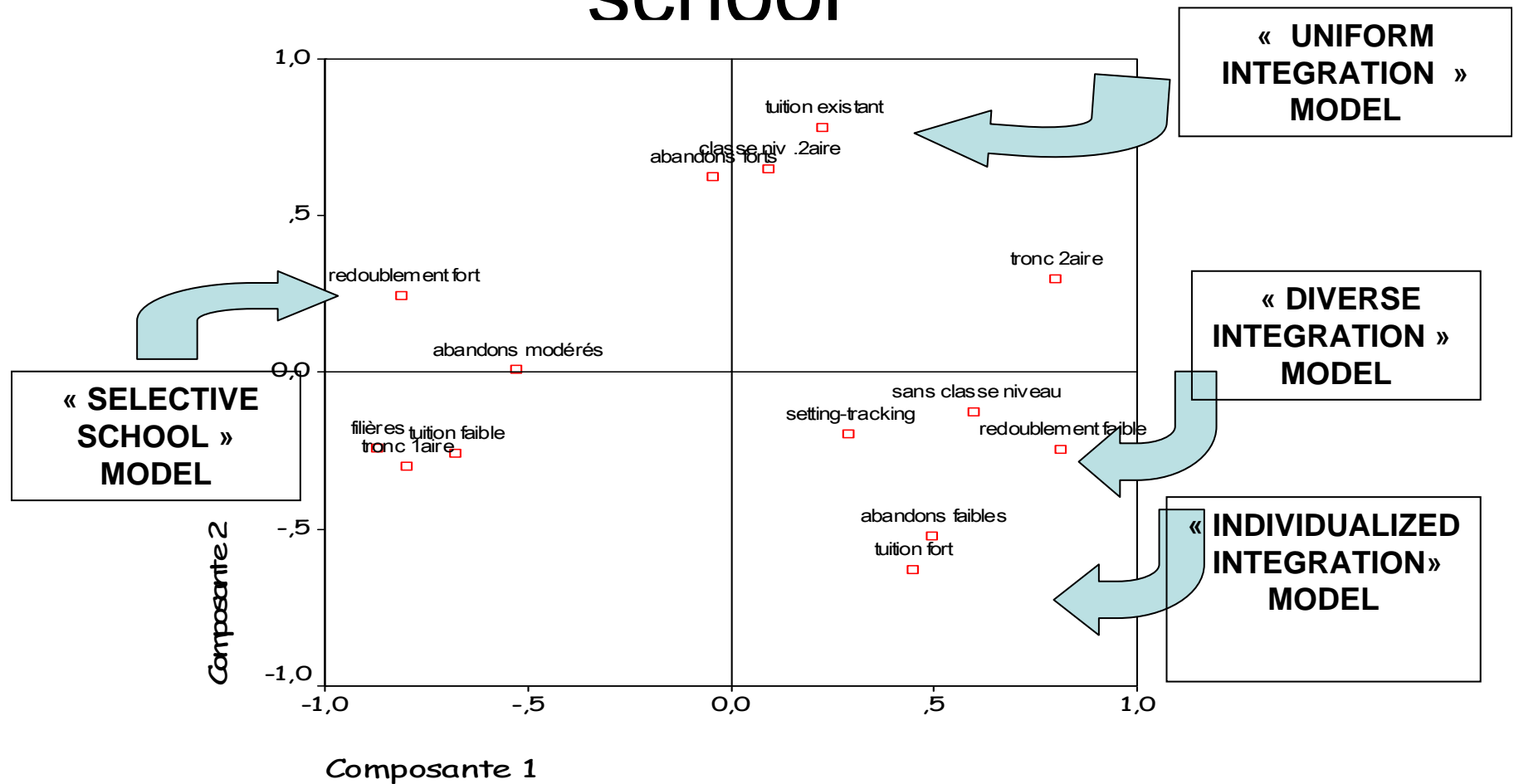
 - **Tracking system** : rigid ability-grouping since ISCED 1 and permanent tracking system at ISCED 2 level (Germany, Switzerland..)

 - The « the **setting-tracking model** » : several forms of intra-class ability-grouping at ISCED 1 and predominantly setting system at ISCED 2

 - The « **officially opponents to ability-grouping** » : No ability-grouping at ISCED 1 and permanent non official ability-grouping at ISCED 2 level in some schools

- Several models of comprehensive schools : building a typology
 - Length of common curriculum
 - Importance of repetition
 - Ability-grouping
 - Individualized teaching

Factorial analysis (MCA) : four models of low secondary level school



Four models of middle school

- Model of separation :
 - Tracking system : short duration of common curriculum
 - High level of repetition
 - Few practices of individualized teaching support within tracks
 - Rigid ability grouping can occur at primary level

Uniform integration model

- It combines the following properties:
 - (a) a long common curriculum;
 - (b) high repetition rates;
 - (c) remedial classes only;
 - (d) rigid ability-grouping starting from lower secondary.

Latin-European family (France, Spain, Portugal, Italy)

diverse integration model

- (a) a long common curriculum without official selection;
- (b) automatic promotion or very low repetition rates in primary school and almost non-existent repetition in secondary school due to a credit system;
- (c) flexible ability-grouping for basic subjects with within-class grouping in primary school and a differentiated offer of lessons according to the academic ability of students in each of the disciplines in secondary school;
- (d) important individualised teaching, often with enrichment classes for talented students.

The model of the English-speaking countries' comprehensive school : United States, in Canada, United Kingdom, New-Zealand

individualised integration”

- most modern form of comprehensive schooling
- Results from the political reforms or practices of the 80's and 90's
- The students must follow the same curriculum, at a similar pace, and if possible with the same peers and teachers throughout the academic path.
- This model has the following characteristics:
 - (a) long common curriculum,
 - (b) automatic promotion of students,
 - (c) no or almost no setting,
 - and (d) individualised lessons, which are an integral part of the teaching process and concern all students, not just the weakest ones.
 - Within this family : Nordic countries (Denmark, Iceland, Finland, Sweden...) and the developed Asian countries (Japan and Korea).

Student outcomes
Achievement results
and
civic attitudes

PISA, effectiveness and equality of outcomes

- Various indicators of effectiveness PISA 2000-2003 :
 - National global scores
 - % of pupils mastering level 5 items
 - % of pupils not mastering level 1 items
- Global inequalities
 - Between pupils
 - Standard deviation of national scores
 - % of students reaching 2-3-4 level of attainment
 - % of pupils not mastering level 1 items
 - School inequalities : inter-school academic dispersion
- Social inequalities at school : INEGA

Civic Ed : student civic attitudes

- IEA Civic Education Study
- 1999, 8th grade, 4500 schools, 28 countries
- Aggregated scales on ethnic tolerance and the feeling national belonging :
 - Immigrants should have the opportunity to keep their own language
 - Immigrants who live in a country for several years should have the opportunity to vote in elections
 - Immigrants should have the opportunity to keep their own customs and lifestyle
 - Immigrants should have all the same rights that everyone else in a country has
 - I would prefer to live permanently in another country

Two secondary analysis investigations

- Models of middle school and student academic performances :
 - Multivariate models at **national level**, factorial analysis
 - Controlling for economic, social, cultural contexts (GDP, % of immigrants, population level of education, level of inequalities in society...)
- Models of middle school and student civic attitudes, with G. Janmaat (IOE), **MLA** :
 - at individual level (gender, ethnic...)
 - At school level :socio and academic composition
 - At national level : democratic tradition...

Findings

- Separation (Selective school) model :
 - associated with high level of school inequalities (global and social)
 - low level of effectiveness
 - High disparities in ethnic tolerance and feeling of national belonging (NFB) (but not low or high *levels* of ethnic tolerance and NFB)
- Diverse integration model :
 - high level of inequalities,
 - high effectiveness (mean score and N5)

Findings

- Uniform integration :
 - medium level of inequalities
 - and average level of effectiveness
 - Low disparities in feeling of national belonging
- Individualized integration :
 - low level of inequalities
 - and high level of effectiveness

Conclusion

- Impact of political choice :
 - Structure of middle school and pedagogical practices
 - Decentralisation, school autonomy, school choice
- Coherence of educational policies and convergence to reinforce effectiveness and inequalities
- Current research on policies of standardized assessment

Academic general level and model of lower secondary schooling

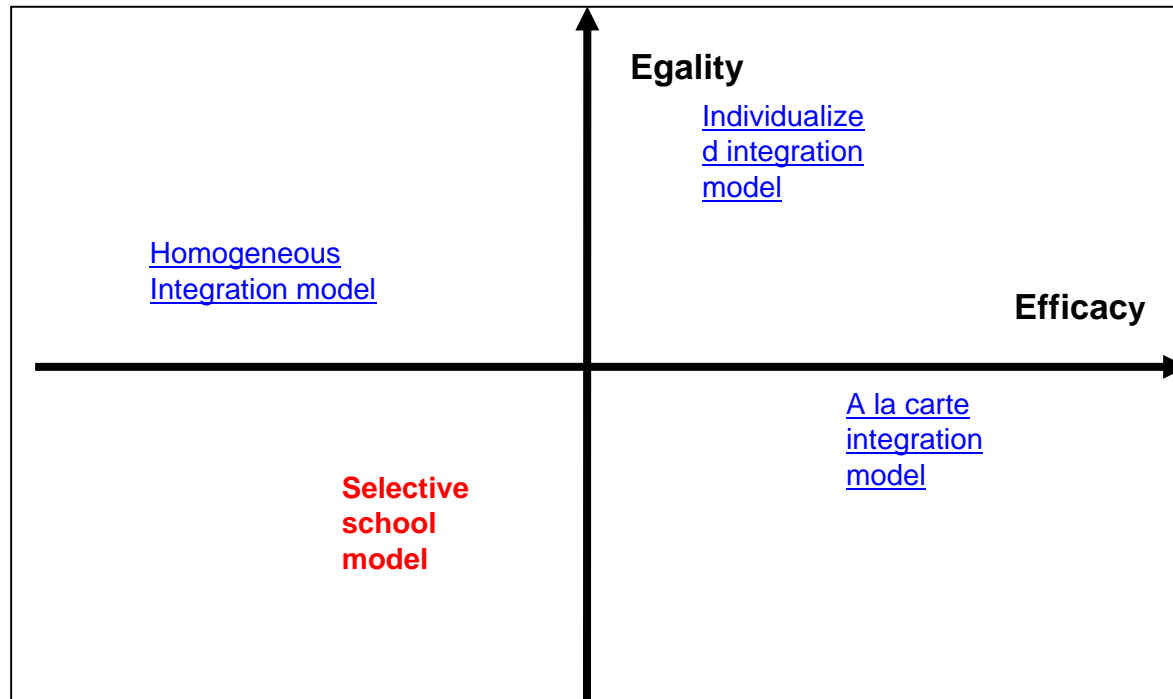
Relation between national scores (PISA 2000) and models of low-secondary schooling, in rich OECD countries

Model		
N = 27		
<u>National score</u>	Coefficient	Significativity
Constant	+ 516	
Homogeneous Integration (ref : individualized integr.)	-30,6	**
Selective school model (ref : individualized integr.)	- 23,9	**
A la carte integration model (ref : individualized integr.)	+ 0,18	ns
$R^2 = 32\%$		

** : significant at 5%,

ns : non significant

No trade-off between equality and efficacy



Cumulated effects of educational policies

Educational policies and social inequalities

