

Early retention in kindergarten: risk factors and school career in French-speaking Belgium primary education

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Context

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- In French-speaking Belgium, one child out of five repeat at least one grade in primary education and two out of three will have repeated at least one grade before the end of upper secondary education (highest rate among OECD countries).
- Around 4% of the pupils enter primary education one year later than they should do; they are kept in kindergarten.
- Kindergarten is schooling, but not compulsory in Belgium. No formal evaluation of children's readiness to enter primary education. Retention results from teachers' recommendations and councils from school psychologists, final word is to parents.

Aims of the study

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- Identify the characteristics of the pupils and the school contexts that predict the odds of retention in kindergarten
- Follow up and compare pupils who have been retained and pupils who entered 1st grade “on time” during five years.
- Understand teachers’ beliefs about grade retention.
- Policy-oriented research → convincing figures for policy makers and teachers in order to inform a dissemination and intervention phase.
- Effects of grade retention on academic achievement and non-cognitive outcomes are already well-known (Goos, 2013; Burkam, LoGerfo, Ready & Lee, 2007; Dong, 2010; Hong & Raudenbusch, 2005).

Methods

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1. Database for monitoring the French-speaking Belgium education system has been used. In this database, the following background variables are available: date of birth, gender, socioeconomic status (namely the socioeconomic status index of the statistical area in which the pupil lives), and migrant status → Follow-up of cohorts from year 2004 to 2010.
2. Questionnaires have been administered to a representative sample of teachers (n=719 preprimary, n=649 first grade teachers) in order to collect teachers' beliefs about grade retention, learning and teaching practices.

Methods

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- Multilevel regression analyses have been performed; odd ratios have been computed in order to estimate the pupils' likelihood of being retained in kindergarten.
- As far as school career is concerned, descriptive pathways in primary education have been established, checking 1) for grade-retention in primary education 2) orientation in special education (limits: no achievement measures available).

Results: risk factors and school career

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Risks of being retained: multilevel regression

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Variables	Odds ratio
Male (Female)	1.657***
Born trimester 2 (Trim. 1)	1.522***
Born trimester 3 (Trim. 1)	2.645***
Born trimester 4 (Trim. 1)	6.244***
Country of birth U. E. (Belgium)	1.279
Country of birth non U. E. (Belgium)	1.401*
Quartile ISE 1 (quartile ISE 4 - privileged)	2.297***
Quartile ISE 2 (quartile ISE 4)	1.841***
Quartile ISE 3 (quartile ISE 4)	1.361***

Risks of being retained: multilevel regression

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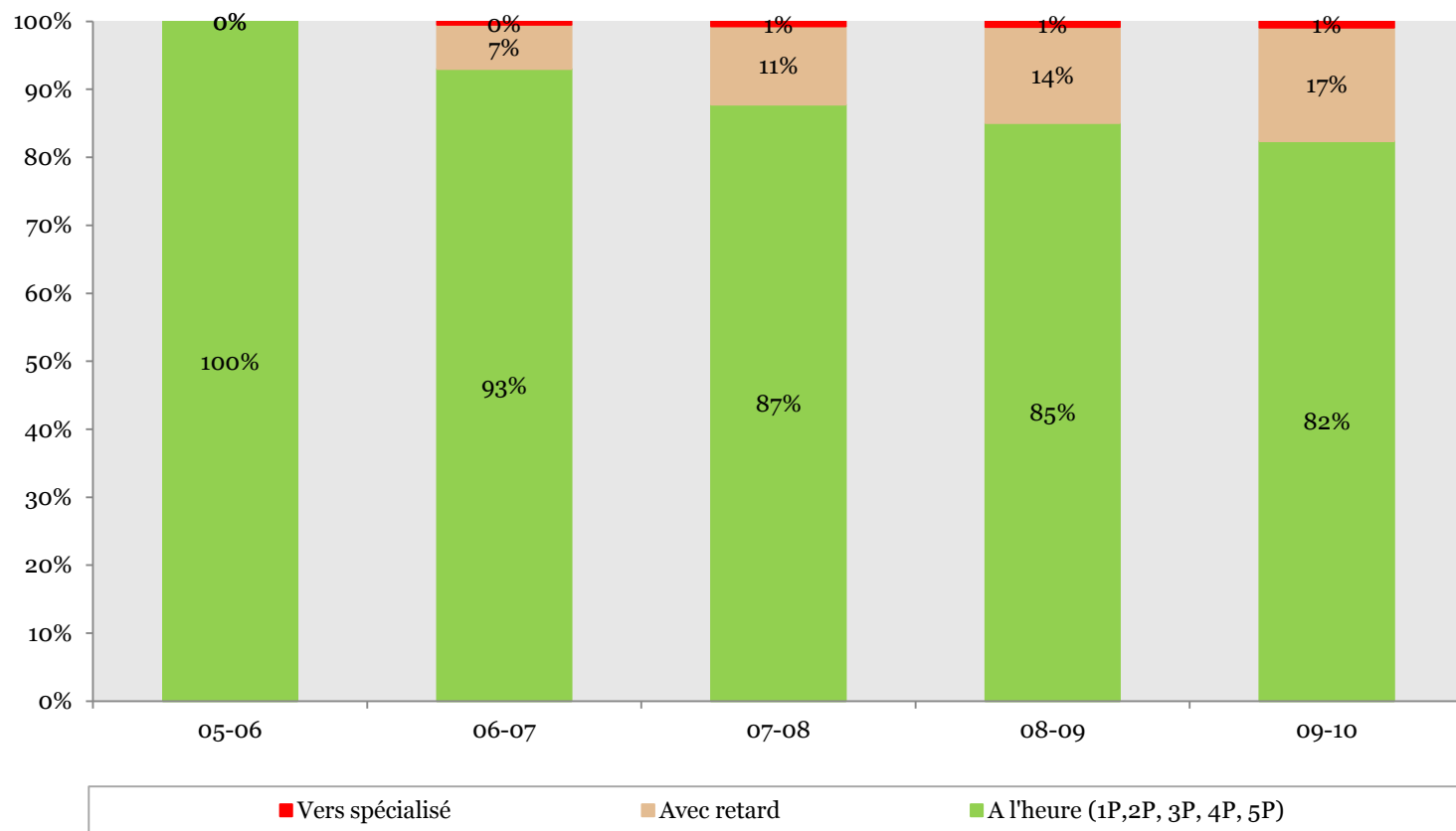
Variables	Odds ratio
Quartile school size 1 (size 4 – larger)	1.320**
Quartile school size 2 (size 4 – larger)	0.925*
Quartile school size 3 (size 4 – larger)	0.839*
Quartile school social intake 1 (quartile 4)	1.253*
Quartile school social intake 2 (quartile 4)	1.104
Quartile school social intake 3 (quartile 4)	0.986

Risk factors at the school level

- School context characteristics were also significantly related to grade-retention in kindergarten.
- Pupils attending a school with an average low-school social intake were more at risk to be retained (individual SES is kept under control).
- Pupils attending a smaller school were more at risk than the ones attending the largest schools.
- The risk was also higher in some regions of the country, where rate of unemployment is especially high.
- Not only the individual socioeconomic status, but the concentration of social problems and difficulties increase the risk of retention.

School career: « on time » pupils

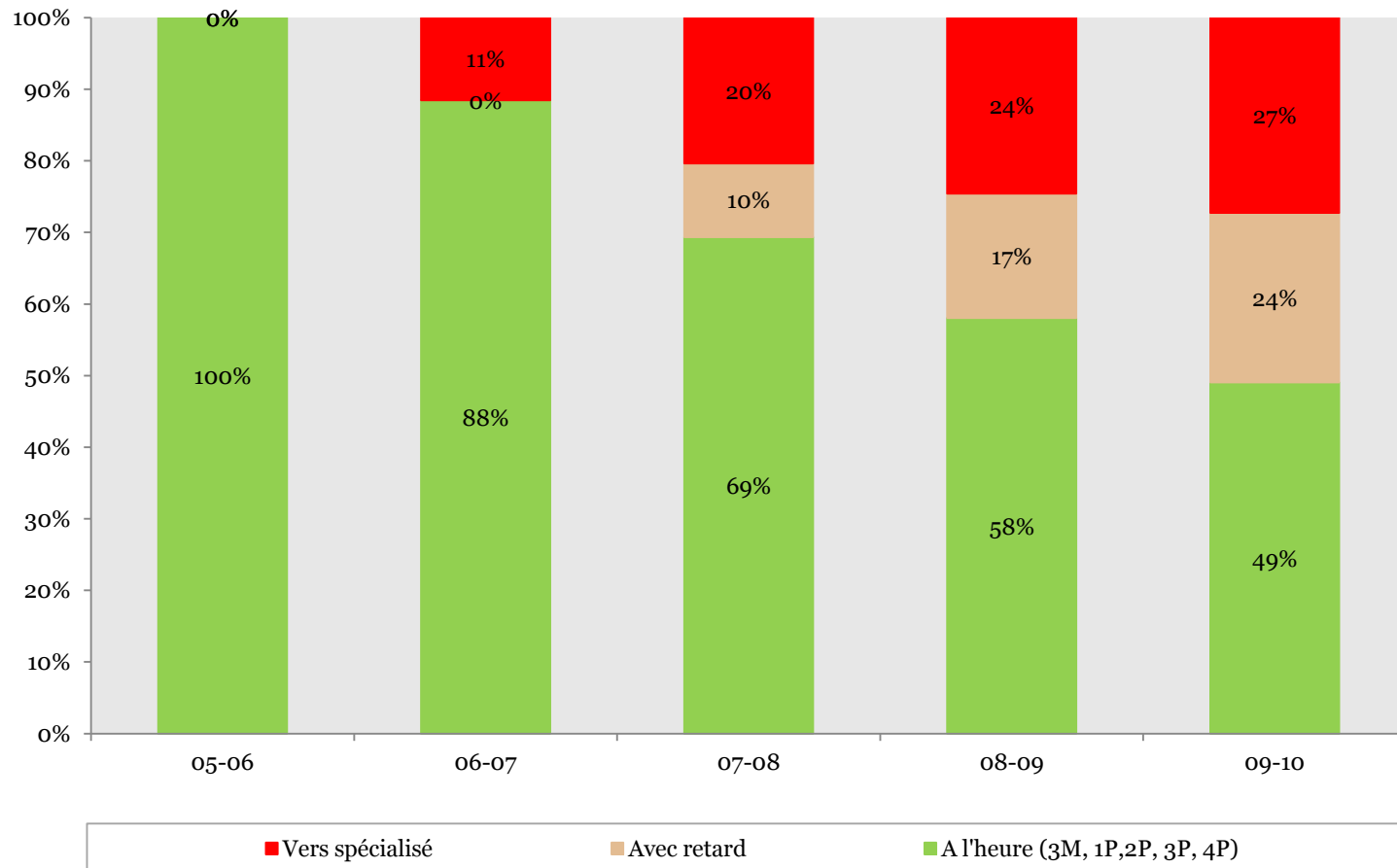
Pupils « on time » in K3 2004-2005, 1st grade 2005-2006



School career: retained pupils

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Pathways of retained pupils who were in K3 in 2004-2005



School career

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- Only 49% of the pupils who were retained in kindergarten follow later on a “normal” pathway in ordinary education without repeating another grade, whereas 85% of the pupils who entered 1st grade on time do so.
- After 5 years, 24% of the pupils who were retained in kindergarten have repeated a grade in primary education; 27% have been oriented towards special education.
- Those results are coherent with experimental studies but
- Obviously should not be interpreted as new evidence that retention in kindergarten is not effective, but just as a solid argument that retention does not “work” as well as most teachers are convinced of.

Results: teachers' beliefs

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Teachers' beliefs: usefulness of retention

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According to you, retention in K3 is :	K3	1st grade
Definitely useless	2%	2%
Rather useless	12%	16%
Rather useful	68%	69%
Definitely useful	18%	14%
Σ	100%	100%

Teachers' beliefs: effectiveness of retention

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	Definitely ineffective	Rather ineffective	Rather effective	Very effective
K3	2%	12%	72%	14%
Grade 1	1%	16%	72%	11%

Teachers' beliefs: cognitive and non-cognitive effects of retention

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		Don't agree at all	Don't agree	Agree	Strongly agree
Retention is beneficial for the pupil's following school career	K3	2%	10%	54%	34%
	G1	3%	8%	62%	27%
Very often, retention has prejudicial effects for the pupil's following school career	K3	20%	62%	15%	3%
	G1	21%	67%	9%	3%
A retained pupil usually loses his/her self-confidence	K3	31%	62%	5%	2%
	G1	20%	70%	9%	1%
The negative role of retention in K3 is overestimated. Usually, pupils do not experience it as a (school) failure	K3	2%	11%	55%	32%
	G1	1%	13%	64%	22%

Teachers' beliefs: mutual expectations

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Preprimary teachers : as regards my first grade colleague, I should not let enter in 1st grade a pupil who has strong learning gaps

Don't agree at all	9%
Don't agree	24%
Agree	44%
Strongly agree	22%
Σ	100%

Primary : I am expecting from the primary teacher that she does not allow entering in 1st grade a pupil who has strong learning gaps

Don't agree at all	4%
Don't agree	17%
Agree	46%
Strongly agree	33%
Σ	100%

Teachers' beliefs and expectations

- A vast majority of preschool and first grade teachers believe that grade retention, especially in kindergarten, is useful, effective, beneficial for the pupils' achievement and not detrimental for non-cognitive aspects.
- Grade retention is seen as a “second chance”, an opportunity to learn better the prerequisites before starting formal education. The main reason for recommending retention for a specific child is lack of maturity or readiness.
- Moreover, preschool and 1st grade teachers share some mutual expectations about the level expected for entering 1st grade. Even if they are no formal instructions or standards, their common view is that pupils who are not “ready” should not enter 1st grade, but rather stay one more year in kindergarten.
- When K3 and G1 teachers have a collaboration, grade retention rates are significantly higher ...

Teachers' beliefs and expectations

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- The decision to retain a pupil, in most of the cases (80%), is taken during the first six months of the year.
- Most of the preprimary teachers' suggestions or actions to prevent retention are out of their scope or of the school scope (external support from orthophonists, psychologists, parents, extra-staff...)

Conclusions and perspectives

- Those teachers' beliefs should be interpreted in the broader context of the education system in Belgium, a “differentiated/adaptative” culture in which pupils with learning difficulties are kept apart from their age group or peers through grade retention, early tracking and special education. Retention in K3 is just the first emblematic occurrence of this way of managing educational pathways (early diagnosis “at risk” → orientation → adaptation + ask for out of school or teacher support).
- The study also raises the issue of teachers' beliefs and educational change. How can those beliefs be changed in order to incorporate evidence brought by research in education since decades?

Conclusions and perspectives

- In order to address this issue, what we did:
 1. For the dissemination phase, systematically integrated and valued teachers' beliefs, showed why they differ from experimental evidence (age/grade based), used counter-evidence valuable for teachers (kids speaking about their experience, invited teams of teachers experimenting zero grade repetition at their own initiative);
 2. For an intervention study (Un. of Brussels), the team's approach was to avoid trying to directly change teachers' beliefs, and to focus the teachers' attention on what the pupils already can do and not on what they are not yet able to do. So that, we expected to increase their confidence: as professional teachers they can have a substantial impact on the pupils' learning and progress → address the practices first, beliefs will change accordingly.

Conclusions and perspectives

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Thank you for your attention!

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