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► To cite this version:

Jules Gazeaud, Claire Ricard. Moroccan schools are fuller thanks to cash grants. The problem now is the quality of their education – study. 2024. hal-04831963

HAL Id: hal-04831963

<https://hal.science/hal-04831963v1>

Submitted on 16 Dec 2024

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Unintended consequences of conditional cash transfers on educational outcomes

New evidence from Morocco reveals that conditional cash transfers can constrain learning when no accompanying measures are taken by governments to account for increased enrolment.

The spread of conditional cash transfer (CCT) programmes in low- and middle-income countries has been described as perhaps the most remarkable innovation of recent decades in welfare programmes. CCT programmes provide regular cash transfers to poor families contingent on specific behaviours such as school enrolment and regular attendance. These programmes started in the late 1990s in Mexico and quickly became the public policy of choice to fight poverty and low enrolment ([Araujo and Macours 2021](#)). Today, more than 60 countries operate education CCT programmes, often at a national scale (Garcia and Saavedra 2023).

While there is plenty of evidence showing that CCT programmes boost enrolment, evidence on their impacts on children’s learning is mixed (see Molina Millán et al. 2019 for a review, and seminal contributions by Baird et al. 2011, Benhassine et al. 2015, Barham et al. 2024). This is puzzling as positive impacts on enrolment point to the potential for clear learning gains and CCT programmes have been motivated by the ultimate objective of enhancing human capital and breaking the inter-generational transmission of poverty. Existing explanations for the lack of learning gains relate to the short-term nature of the evaluations, which may not provide enough time for the learning effects to materialise (Cahyadi et al. 2020).

In recent research (Gazeaud and Ricard 2024), we propose and evaluate an alternative explanation to the apparent puzzle of why we see large impacts of CCT programmes on enrolment but not on learning. Motivated by reports that “schooling is not learning” (Pritchett 2013), we focus on supply-side factors and suggest that when no accompanying measures are taken to manage the gains in enrolment, the introduction of a CCT programme can deteriorate school quality and thus constrain learning for children who enrol in school regardless of the existence of the programme.

Conditional cash transfers in Morocco

We explore this mechanism in the context of a CCT programme implemented at scale in Morocco. The programme—known as *Tayssir*—began operating in 2008 and quickly became the flagship education policy of a government strongly committed to reducing school dropout rates. Benhassine et al. (2015) show that the pilot version of *Tayssir* had substantial positive effects on enrolment but not on learning. Following this evaluation, *Tayssir* was quickly scaled-up to reach annually up to 800 000 children in 434 municipalities. Because the allocation of transfers remained remarkably stable over time, the scaled-up version of *Tayssir* offers an ideal setup to study how CCT programmes affect learning with enough time for the effects to materialise.

We exploit the fact that eligibility to the programme was determined based on the poverty rate of each municipality to conduct a regression discontinuity analysis (*Tayssir* targeted all municipalities with a poverty rate above 30% and all households with children aged 6-15 within these municipalities). We find that the 30% eligibility threshold is highly predictive of *Tayssir* allocation. To study the impacts of the programme, we use novel administrative data from the information system of Morocco’s Ministry of Education on the universe of primary school students in municipalities around the eligibility cut-off. This information system provides unique identification for all students in Morocco and has been cited as an example of a successful education management information system—although to our knowledge it had never been used by academics.

The CCT programme reduced school dropout rates

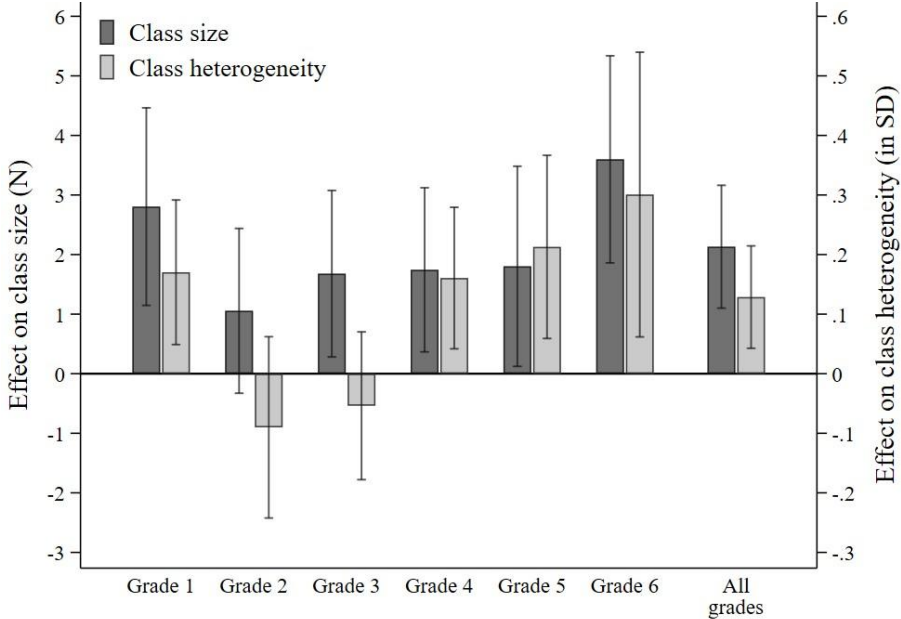
In the first part of our analysis, we assess *Tayssir*’s effects on dropout rates and check for possible differences with the estimates of Benhassine et al. (2015) on the pilot version of the scheme. This exercise is important because impacts may differ as programmes are taken to scale. We confirm that the grade-specific dropout rate decreased by 1.3 percentage points on average (41% of the sample mean), which is equivalent to an increase in enrolment of about 9 percentage points by the end of grade 6. We find a greater decrease for girls: 1.8 percentage points or 50% of the sample mean. Remarkably, these estimates are in line with those of Benhassine et al. (2015) on the pilot, despite the nationwide expansion of the programme and the ten-fold increase in the number of beneficiaries. These results are reassuring regarding the ability of pilot evaluations to produce

insightful estimates of at-scale impacts—at least for interventions like *Tayssir* which mainly involve monetary transfers and require relatively low levels of staffing to implement effectively at scale.

Reducing dropout rates increased class size and variation in class composition

We next ask whether this boost in enrolment affected the quality of school supply as proxied by class size and class composition. Without coordinated supply-side responses, the reduction in dropout rates induced by *Tayssir* may have affected both class size and class composition by retaining lower-ability students, potentially leading to negative effects on learning outcomes through peer effects and less effective teaching practices. Our estimates show that class size in targeted areas increased by 3.6 students by the end of primary school, equivalent to 12% of the sample mean. Heterogeneity in class composition increased by 0.30 SD (standard deviations) by the end of primary school. Figure 1 shows that these effects are stronger in higher grades, suggesting that the reduction in dropout rates accumulated over time and progressively overburdened school resources. Large effects in grade 1 likely reflect the fact that children in targeted municipalities started school earlier—possibly to benefit from the transfers—and repeated grade 1 more often.

Figure 1: Effect of *Tayssir* on class size and heterogeneity.



Notes: Each bar reports the coefficient estimate of the local average treatment effects of Tayssir. The dependent variables are class size (number of students per class) and class heterogeneity (standard deviation of the GPAs within a class). 95% confidence intervals are reported.

Larger class sizes and increased differences in class composition had negative impacts on children’s test scores

In the final part of our analysis, we assess more directly whether effects on class size and composition constrained learning by assessing *Tayssir* impacts on test scores at the end of primary school exam. One challenge to identify this class size and composition channel is that *Tayssir* may have impacted test scores through other channels such as increased investments in complementary inputs—food, school supplies, and parental time—complicating the interpretation of the results. However, we argue that negative estimates on test scores still provide empirical support for the importance of the class size and composition channel, as effects from other channels likely run in the

opposite direction. We use several imputation strategies to correct for the potential bias resulting from the lack of scores for children who drop out before taking the exam.

Consistent with the class size and composition channel, we find that *Tayssir* had negative effects on test scores. In our preferred specification, we estimate that the programme reduced test scores by 0.12 SD for the full sample and by 0.18 SD for the sample of boys—effects for girls are smaller and not statistically significant at conventional levels. In our research, we discuss in detail the potential explanations for this pattern and argue that several factors explain why the negative effects are concentrated among boys. For instance, *Tayssir* increased the proportion of girls in classes. Research has suggested this can negatively affect boys' learning as teachers often adapt their teaching to the gender composition of their class and tend to favour girls' learning when they are in higher proportions (Briole 2021).

Policy recommendations: Schooling is not learning

We provide evidence that the introduction of a CCT programme can deteriorate school quality and thus constrain learning for children who enrol in school regardless of the existence of the programme. However, this insight should in no way be interpreted as evidence that policymakers should not pursue CCT programmes. Such programmes, including the one we study, have proven particularly effective at increasing access to education, which is a crucial first step to enhance learning. These programmes also have many other benefits such as delayed marriage and childbearing for adolescent girls. However, our results, together with evidence showing alarmingly low literacy and numeracy levels among students in low- and middle-income countries, indicate that the attendance gains from CCT programmes alone are unlikely to equip students with the foundational skills they need to thrive. In fact, our results show that CCT programmes can have adverse effects on learning when schools lack the necessary resources to accommodate the influx of new students. Such insights may be particularly relevant for other interventions aiming to increase school attendance without complementary investments in school capacity.

Recent decades have seen a surge in evaluations focusing on the learning effects of education interventions in low- and middle-income countries. Although there is no silver bullet to raise learning, some “great buys” emerged (GEEAP 2023):

- (i) providing information on the benefits, costs, and quality of education;
- (ii) supporting teachers with structured pedagogy;
- (iii) pedagogical interventions that tailor teaching to student learning.

In Morocco, where our study takes place, Ibrahim et al. (2024) demonstrate that an intervention combining two of these three “great buys”—targeted instruction based on learning level and structured pedagogy—yields large gains in learning. An interesting question for future research and a promising avenue for policy makers aiming to address the learning crisis would be to explore the complementarities between such interventions and CCT programmes. By doing so, research can assess whether combining education interventions can produce effects that are greater than the sum of their individual effects.

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