

# Do Public Exams Raise Student Performance? A Cross-National Difference-in-Differences Analysis\*

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## ABSTRACT

Is a system of public exams conducive to student learning? To address this question, I employ a difference-in-differences methodology which isolates the effects of public exams from the effects of unmeasured country-level features, using data from the Trends in International Mathematics and Science Study (TIMSS) for students in Grade 4 and Grade 8 in 1995 and 2003. Findings of this study suggest that students in countries with a system of public exams perform higher in math, but not in science. The positive effect of public exams on math performance found in this study, however, is only half as large as what was previously reported. Furthermore, when countries with public exams are extended to include Cyprus and Portugal, public exams no longer have a positive effect on student math performance.

**Key Words:** public exams, student assessment, difference-in-differences, student performance, TIMSS

# 校外公開考試是否提高學生學習表現？ 運用雙重差分模型的跨國分析

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## 摘 要

實施校外公開考試制度是否會提高學生的學習表現？爲了回答這個問題，筆者使用 1995 年與 2003 年的「國際數學與科學教育成就趨勢調查 (TIMSS)」資料庫，以同時有四、八年級學生參與的國家爲分析樣本，運用雙重差分迴歸模型來控制未觀測到的國家間差異，以有效評估校外公開考試對學生學習的影響程度。結果發現，有校外公開考試制度的國家，學生有較好的數學表現，但沒有較好的科學表現。雖然本研究發現校外公開考試對學生的數學表現有正面影響，但影響程度只有過去研究發現的一半。此外，當賽普勒斯與葡萄牙被歸類爲有校外公開考試的國家時，校外公開考試對學生數學表現的正面影響就不再顯著。

關鍵字：校外公開考試、學生評量、雙重差分、學生學習表現、TIMSS