

Date Wednesday 4 March 2015, 13:00 to 14:00

Location SFI, the Danish National Centre for Social Research, Herluf Trolles Gade 11, 1052 Copenhagen K, meeting room 3

Presenter Hans Henrik Sievertsen, SFI, the Danish National Centre for Social Research

The Effect of Cognitive Fatigue and Time-of-Day on Standardized Tests

ABSTRACT

Using test data for all children in Danish Public schools 2010-2013 we test how the time of the test affects the performance. We exploit that the time of the test is random to the individual, as it is determined by the weekly class schedule and computer availability at the school. Our estimate of the linear effect shows that for every hour later in the day, the test score decreases by 0.6% standard deviations. This estimate conceals an important feature of the normal school day: breaks. We find that a 20-30 minute break causes a significant improvement in average test score. Once we control for breaks, the hourly effect is 4-5% standard deviations. The results have two important policy implications: First, cognitive fatigue should be considered when deciding on the length of the school day and the frequency and the duration of breaks. Second, school accountability systems should control for external factors when affecting test scores.