

Report on dissertation by Dagmara Celik Katreniak

This dissertation deals with the interesting question regarding the ability of incentives given to students to get them to learn and by that to increase the education quality in developing countries.

While this topic has been studied in the literature, very little has been studied in the case of developing countries. In this work, the author considered different types of incentives for 5,000 students aged 11 through 25 who were repeatedly interviewed and tested between 2011 and 2013 in Uganda. The data was collected and analyzed for the effects of different incentives for performance in the Mathematics and English and on the students; well-being measured which is captured by the perceived happiness and stress of the students.

I learnt a lot from this regarding the education system in Uganda.

Let me state up front that this is a very interesting Ph.D and that the thesis satisfies formal and content requirements for a PhD thesis in economics. I recommend the dissertation for a defense.

With regard to Chapter 1

In Chapter 1 which has the interesting name: “The Dark Side of Incentives,” various incentives have analyzed in order to lowering absenteeism and increasing student performance. This study contributes to the current literature by studying the effects of various types of incentives on student performance and their well-being. The study takes into account two types of incentive regimes - financial and reputation rewards, and their combinations.

The results of this study show that students who received repeated feedback without further incentives have a positive but insignificant effect.

The results differ in Math and in English. While in Math, students improved significantly, there was no improvement in English.

An important issue is that students improved significantly more in response to rewards compared to the immediate feedback.

Students exposed to the combined incentive scheme of feedback with rewards increased their performance if rewarded financially and increased their performance if rewarded in terms of reputation.

There is, however, a trade-off between improvements in performance and changes in students' well-being in response to different incentive schemes. While students exposed to feedback and reputational rewards improved their performance mildly compared to the control group students, neither their happiness nor stress changed. Financial rewards led to stronger improvements in performance but were associated with higher stress and lower happiness.

Students being informed seems to play a role in terms of stress. Students involved in a competition for monetary rewards reported significantly lower stress levels compared to those who competed for money without feedback. Stressed students exerted less effort, performed worse on average compared to more relaxed students.

The Gender plays an important role. Gender differences in responsiveness to different incentive types. According to the results, girls did not improve when they received no feedback but they competed for rewards of any type and significantly underperformed boys. If the girls were repeatedly given feedback (and the type of feedback does not matter), they performed comparably to boys. Moreover, girls also responded positively to sole feedback (without rewards). Comparative feedback played a crucial role for girls in enhancing their performance in a tournament environment. Boys reacted only with respect to rewards. Feedback did not play any role in their performance improvements. However, there were no gender-differences in the effects of incentives on well-being.

With regard to Chapter 2

In the second chapter students from primary and secondary schools were evaluated and incentivized in groups repeatedly during an academic year. Students received complex feedback about their own performance and the performance of other group members.

This chapter contributes to the current literature on this topic. First, the results shed light on what happens to students' overconfidence if students are evaluated in groups, and they repeatedly receive feedback about their own performance and the performance of their groups.

An interesting result is that the type of feedback does not play a significant role in students' accuracy of calibration of their self-assessment.

The results of this experiment bring evidence from primary and secondary schools in Uganda to the debate regarding the existence of the unskilled and unaware phenomenon known as the Dunning-Kruger effect. Unskilled students grossly overestimate their performance and skilled students underestimate their performance if they perceive the task to be easier compared to the tasks used at schools. If the students of this experiment perceived the task to be more difficult, both bottom and top performers were overconfident. If they perceived the task to be easier or of comparable difficulty, students were predominantly overconfident.

The results similar to that presented in the literature.

The results also show that the unskilled students improve in their accuracy even if they do not improve their performance.

The results show that the overconfidence of students in the control group (who received no feedback) increased with repeated testing, whereas feedback received by the treatment groups lowered students' inaccurate estimates of their performance.

Some minor specific comments:

1. List of controls in the regressions should be at the bottom of the table.
2. Significance level (P-value) of the regression should be reported in the table.
3. Explanation for missing values should be added.
4. More should be discussed regarding the IVs (feedback and reward treatments as instruments), using the correct test.
5. With regard to the differences between boys and girls, it would have been easier to see the differences in the regressions using dummy variables for gender.

All in all this is a very interesting thesis carried out at a high level empirically and it satisfies the formal and content requirements for a PhD thesis in economics. Job well done!