

Teacher incentives in South Africa: a theoretical perspective

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Outline

- Introduction: Teacher quality in South Africa
- Economic theory and incentives
- Theoretical models of teacher incentives
 - Moral hazard and risk of distortion: Holstrom and Milgrom (1991)
 - Peer pressure and partnerships: Kandel and Lazear (1992)
- Characteristics of successful incentive systems
- International examples of incentives systems
- South Africa: where do we stand?

Teacher Quality in South Africa

- SACMEQ III: South Africa scored 10th out of 15 southern and eastern African countries
- Teacher quality and low levels of teacher effort often cited as drivers of SA's weak performance
- NEEDU Report (2012): teacher either CAN'T or WON'T perform at the required level → require different kinds of intervention
- Incentives may be useful in the case of both:
 - WON'T: have ability → incentives may induce them to use it
 - CAN'T: don't have the ability → incentives encourage those who can achieve the standard to remain in the profession and those who don't to leave

Economic Theory of Incentives

- Classic example: "piece-rate" system in which workers are remunerated according to their level of productivity
- Need for incentives: principal-agent problem → principal is not able to observe worker's level of effort
 - Teachers and school principals
 - Teachers and parents

Theoretical Models of Incentives

- **Moral hazard and the risk of distortion: Milgrom and Holstrom (1991)**
 - *"I come to the following pessimistic laws. . . : The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor"* (Campbell, 1976).
- Points to the problem of introducing a measure of performance which may be "abused"
- Multi-tasking: teachers may engage in behaviour that enhances the student knowledge OR in behaviour that improves test scores without actually improving performance
- Point out that in the case of exceptionally low performance, even incentives that encourage distortive behaviour may be an improvement on the situation (i.e. if students know very little, then teaching in a way that improves test score may be an improvement)

Theoretical Models of Incentives

- **Peer pressure as an incentivising factor: Kandel and Lazear (1992)**
- Effectiveness of peer pressure depends on workers being able to observe each other's actions and on being able to influence each others actions
 - If BOTH of these characteristics aren't present, not likely to be an effective incentivising factor.

"The punishment for not attending school is assumed to be nonpecuniary (so it takes the form of mental or physical harassment)"

International Examples of Incentive Systems for Teachers

- Andrah Pradesh (India), Israel, Kenya, Pernambuco (Brazil), USA, Finland
- CHILE: good example for South Africa
 - Regions are divided up into socioeconomic groups so schools are compared within regional socioeconomic groups (SNED – National Performance Evaluation System)
 - Top schools awarded: all teachers in the school receive monetary rewards
 - Teachers are evaluated for the Teacher Evaluation System and classified as excellent, competent, basic or unsatisfactory → various non-monetary awards associated with achieving excellent status, mentoring and coaching associated with achieving unsatisfactory
 - PEA (Pedagogical Excellence Award) – teacher voluntarily apply to be assessed on their content knowledge, lesson plans and a recording of their teaching

International Examples of Incentive Systems for Teachers

- Dangers of introducing incentives: North Carolina (USA) → schools who did not receive incentives experience a loss of teachers who moved to schools who qualified for incentives

South Africa

- **Distribution of Matric Mathematics Marks for First Years Enrolments, 2005 – 2009**

Source: Data on first year enrolment at the University of Stellenbosch, 2005 - 2009

South Africa

- **Distribution of Matric Language Marks for First Years Enrolments, 2005 – 2009**

Source: Data on first year enrolment at the University of Stellenbosch, 2005 - 2009

South Africa

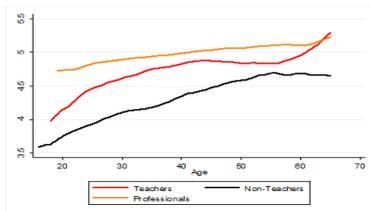
- Occupation Specific Dispensation of 2008 (OSD) – proposed that teachers be ranked according to performance of students and remunerated accordingly: larger increase in notches → never implemented
- Current remuneration structure in teaching in South Africa offers little to teachers who perform well.
- Flat age-wage profile: little incentive to remain in the teaching profession after the initial years

SA: Age-Wage Profile of Teachers

- **Local Polynomial Smoothed Lines for Age-Wage Profile (2000 – 2007)**

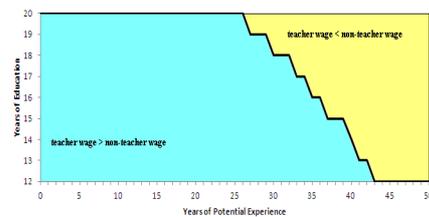
SA: Age-Wage Profile of Teachers

- Local Polynomial Smoothed Lines for Age-Wage Profile (2010)



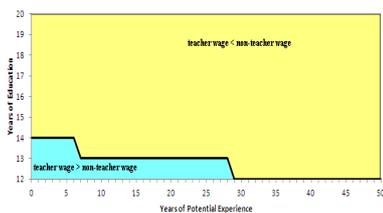
SA: Returns to Productive Characteristics

- Teachers vs Non-teachers (10 years of educational attainment)



SA: Returns to Productive Characteristics

- Teachers vs Non-Teaching Professionals



South Africa

- Prospects for mutual monitoring: Integrated Quality Management System
 - Evaluation is handled largely through self-evaluation and development support groups
 - Not high stakes
 - Teachers evaluated by their HOD and a colleague of their choice (within the same department)
 - No sanctions for poor performance
 - Peer pressure unlikely to prove effective as an incentivising force

Conclusion: Where do we stand?

- Teacher quality is low in South Africa (relative to the quality of individuals entering other professions)
- Very little happening in terms of teacher monitoring
- There is a need to ensure that top performers (in the broader labour market) enter the teaching profession and that top performers within the profession remain in the profession
- Role of teacher unions?
 - Chilean example?
- Chile and Brazil: comparing schools within their socioeconomic groups → may be an avenue for South Africa to follow