



## Building on what works in education

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# Teacher Pay for Performance

## Lessons from other countries

*This publication is a summary of a paper written for the CDE by Dr Roger Deacon. He examined international literature and experience of various teacher pay for performance systems. This summary examines the pros and cons of such systems, the motivation behind them, benefits and potential pitfalls. The paper reviews the international and South African literature, and examines international experience of teacher pay for performance programmes. It identifies what lessons can be drawn from both developed and developing countries, the various mechanisms used for incentives around the world, and the potential of success for such systems in the South African context.*

Teacher pay for performance systems are not a new phenomenon: such incentive programmes were used in Britain, Canada and Australia as far back as the mid- to late 19th century. In the United States, almost half of all school districts were using merit pay in 1918, although numbers fell over the years to about 12% of schools by 1993. In the past few years, however, there has been an upsurge of interest in teacher pay for performance which has stimulated a number of studies conducted around the world, in both developed and developing countries.

Reasons for this upsurge in interest include the fact that in many countries teachers are ageing, the status of the teaching profession is declining and the quality of teachers and teaching is seen to be inadequate. Globally, education systems are increasingly being held to account by their various stakeholders with regard to the cost of their input and the efficiency of their processes and outcomes. Moreover, governments are now more aware than ever before of the relative standing of their educational systems, teachers and learners in relation to other countries, which has fuelled debates around accountability and efficiency.



There is a global shortage of quality teachers, particularly in mathematics, science and languages which is exacerbated by growing numbers of teacher retirements and high attrition rates among new teachers. All these factors have led to a renewed and growing interest around the world in offering incentives of various sorts in order to attract, train, retain and develop teachers.

Schools around the world are increasingly making use of standardised testing, which makes it easier to quantify the effects of incentive pay. There is therefore a global swing in educational policy towards outcomes and outputs and away from input-based interventions, such as salaries traditionally based on qualification and years of service.

### **What are teacher pay for performance programmes?**

Teacher pay for performance programmes (also known as incentive systems, compensation plans, merit pay and bonus or reward schemes) are intended to encourage or motivate teachers to work harder, or better, in return for certain specified rewards.

Such programmes may also be used to attract and/or retain good teachers, manage ineffective teachers, develop teachers' knowledge and skills, improve learners' performance and attendance, reduce drop-out, increase accountability and promote collegiality, among other considerations.

Incentive systems can take a number of forms: they can be offered to individuals, groups or an entire school, and are mostly, but not necessarily, financial. Non-financial incentives include promotion, personal satisfaction, recognition, status, improved working conditions, increased resources or extended leave and sabbaticals.

There are various ways that incentives can be awarded. For example, they may be added to a basic salary or constitute a once-off (or repeatable) bonus, in the form of a cash amount. Financial incentives can also include tuition assistance, accommodation allowances and loan forgiveness, as well as reimbursements for journal subscriptions, educational software or organisational membership fees.

Teacher pay for performance programmes usually take one of two forms:

- *Rank-order tournaments* (where performance is seen as relative to other teachers, or schools); and
- *Fixed-performance contracts* (where any individual who meets the predetermined target or standard receives a benefit, regardless of the performance of others.)

In short, teacher pay for performance programmes are intended for specific purposes, including (but not exclusively) improving learner performance. They are usually (but not necessarily) financial in nature; they can target individuals, or groups of teachers, or schools; are made available to some or all teachers, on the basis of specific performance criteria or objectives; vary according to size and frequency; and are usually structured either as a rank-order 'tournament' or a fixed-performance contract.

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## Pros and cons of teacher pay for performance systems

Both research and experience have shown that incentive pay programmes do not always have the desired effect, i.e., increased motivation in order to bring about improved output among teachers. In fact, sometimes they can have the opposite effect. This means that choices about design and implementation of such programmes are vital.

### The pros

The main advantage of pay for performance systems is that they can motivate some (if not most) teachers to work harder or better; they reward good teachers for their extra effort and they can encourage less effective teachers to find ways to improve their performance.

Financial incentives may also serve to attract more talented or higher performing candidates into the teaching profession, as well as help to retain good teachers.

It is also argued that paying all teachers on the basis of the traditional salary scale (based on years of service and qualifications) is unfair and acts as a disincentive, to exceptional teachers.

Another advantage of paying teachers for performance is that it is generally more cost-effective than other reforms, for example decreasing the size of the class (which would require more teachers).

### The cons

The main criticism of incentive pay for teachers, specifically when based on learner test scores, is that they can have unintended negative educational consequences. For example, teachers who are being tested may be encouraged to focus only on what's being tested, at the expense of more general learning; teachers could be encouraged to focus on rote learning; they may over-emphasise tested subjects (again, at the expense of non-tested subjects), and they may try to manipulate learner performance (for example, through deciding who gets tested).

Some teachers feel that pay incentives are not appropriate for the teaching profession; and, in the case of non-egalitarian rewards, that those who do not receive a reward may reduce their efforts or give up entirely.

Moreover, it is argued that rewards systems are necessarily linked with assessment and evaluation, and therefore reduce teacher autonomy and undermine a teacher's intrinsic motivation.

There is also the problem of individual incentive pay leading to harmful competition among teachers and 'back biting'. A sense of collegiality within a school could be compromised if one teacher gets a bonus and another does not.

Finally, in the case of group incentives, there is the potential problem of free-riding, where some do not work as hard as others even though all benefit equally.

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### Studies undertaken

Despite an increase in interest in performance pay and a growing body of literature on the subject, there has been relatively little research which provides empirical evidence of the effect of incentives on teacher performance and learner achievement.

Prior to 2007, most research on the subject had been done in the United States (US), and had mainly focused on school-based incentives as opposed to individual incentives. Numerous flaws and limitations were identified in the studies with regards to design, size and data.

Since 2007, more data has become available, although the field is still dominated by descriptive studies (i.e. which simply tell the story rather than analyse the reasons for results) instead of high-quality experimental investigations (i.e. those that use rigorous tests of cause and effect). According to the CDE commissioned literature review, there have been only six experimental studies and fifteen descriptive studies conducted on teacher pay for performance around the world.

### A. Experimental Studies

Interestingly, most of the experimental studies have been conducted in less developed countries: of the six randomised, controlled experimental studies available, one was conducted in Kenya, three in India, and two in the US.

#### *Kenya*

The earliest experimental study took place in Kenya between 1998 and 2000 among Grade 4-8 teachers at 50 rural primary schools. The aim of the study was to address the problem of learner drop-out and teacher absenteeism, and to increase exam participation, hence the incentives were based on the average school-wide performance of all eligible learners sitting for the government's district exams. Teachers were offered prizes (such as clothing and linen) valued up to 43% of their typical monthly salary.

The incentive programme had a positive impact: there was an improvement of 0.13 standard deviations (SD)<sup>1</sup> (which is quite big) across all subjects and grades, though in the second year only. The study showed that teachers – at least in the short term - increased their level of effort and encouraged more learners to take the district exam. However, the programme had no effect on the drop-out rate or teacher absenteeism, and suggested that the teachers were focused on short-term gains.

#### *India*

The first of three pay for performance experiments conducted in India took place in **Rajasthan** from 2003 to 2005. As in Kenya, teacher absenteeism has been a major problem. Monitoring teachers'

In Kenya the programme had a largely positive impact

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1 A standard deviation measures the spread of dispersion of results or scores from the mean. If effective, paying teachers for improving learner achievement will be reflected in learners scoring a certain percentage of standard deviation higher than they scored before the incentive scheme was introduced.



attendance daily, using cameras, the study offered them a Rs50 (\$1.15) bonus for each additional day attended in excess of 20 days (potentially 30% of their salary), coupled with a Rs50 fine for each day absent.

Over the 30 months in which attendance was tracked, teachers at the 60 schools in the programme had an absentee rate of 21%, compared to 42% in the 60 comparison schools. In addition, the learners, who benefited from about 30% more instruction time, showed an improvement of 0.16 SD in Mathematics and 0.21 SD in language. These are considerable gains.

The second experiment in India took place in 2006 in **Andhra Pradesh**. Teachers at 100 rural primary schools were offered bonus payments of 5% of their monthly salary per percentage point gain in learners' average scores.

In this case, performance-based incentives had a significantly positive impact on learner test scores, with learners in the incentive schools scoring 0.19 SD higher in Mathematics and 0.13 SD higher in language than learners in control schools.

The study showed that teachers in the incentive schools made a substantially greater effort by assigning more homework and class work, conducting extra classes and paying more attention to weaker learners.

In the third experiment in India, which also took place in **Andhra Pradesh** in 2006, the incentive was based on school performance, instead of individual teacher performance. Once again, bonus payments were offered on the basis of learners' same percentage point gain in average scores, except that this time the bonus was paid to all teachers in the school.

The results of this group programme were close to those of the individual programme: learners in the incentive schools scored 0.16 SD higher in Mathematics and 0.11 higher in language. However, the results of both Andhra Pradesh studies are only for the first year of the programme (data for the subsequent years are still not available).

### ***United States of America***

In contrast to experimental studies conducted in less developed parts of the world, the results of pay for performance experiments in the US have been less promising.

The first of the US experiments, the Project on Incentives in Teaching (POINT) took place in **Nashville** from 2007 to 2009. Nearly 300 middle school mathematics teachers were offered bonuses for improving their learners' performance to the 80th, 90th and 95th percentile thresholds, up to a maximum bonus of \$15 000 (44% of annual salary).

The results showed that the incentives had little effect on learners' performance: they achieved only a minor (and statistically insignificant) improvement of 0.04 SD across all years and all grades, and the incentives had little effect on what teachers did in the classroom. The only positive effect was in

In the US pay for performance experiments have been less promising



Grade 5 learners' scores in the second and third year, but this improvement was not sustained in Grade 6.

Another US study was a pilot in **New York City (NYC)** from 2008 to 2010 in which 20 000 teachers at 198 high-need schools were offered the chance to earn up to \$3 000 per annum per unionised staff member, to be distributed at the school's discretion, for improving learner achievement. In this school-based study, learner achievement failed to improve at all.

A second study in **NYC** using the same incentive scheme was conducted at the same time as the last-mentioned one, this time using a slightly smaller and more selective sample: 181 randomly selected high-poverty schools. This study yielded very similar results – there were no statistically significant improvements, and even a negative impact on mathematics results.

Many explanations have been put forward as to why incentive schemes in developing countries (i.e., Kenya and India) appear to have worked when in the US they did not. The most compelling reason could be that, because the NYC studies were group-based, too many teachers had been 'free-riders', leaving too few teachers to achieve the targets. Another possibility is that in the US a different type of person is attracted to teaching, by comparison with developing countries.

### **B. Descriptive Studies**

The second set of (fifteen) studies on teacher pay for performance programmes includes quasi-experimental research (i.e., non- or only partly-randomised studies) drawn from Chile, Israel (two studies), Mexico, Portugal, the UK, and several cities in the US, as well as a national study of the US and an international comparison of OECD countries.

#### **Chile**

In 1996, Chile introduced a pay for performance programme, the National Subsidized School Performance Evaluation System (SNED). This rank-order tournament-style scheme allocates incentives to the top 25% of schools. Winning schools distribute 90% of the total bonus to all their teachers, based on hours worked; and 10% to those teachers who make noteworthy or significant contributions. Each teacher at the winning school received about 40% increment on their monthly income in 1996/97, which increased to 80% in 2006/07.

Research on SNED has shown that the programme has a combined positive effect on (award-winning) schools' learner achievements, which improved by between 0.2 and 0.3 SD at overall school level. These were substantial gains.

On an individual level, however, it has been found that monetary incentives have an insignificant effect on learner achievement, and there was no evidence that teachers exerted more effort after receiving an award. Also, critics argue that the system has created overall improvements in only a small percentage of schools (nearly half of eligible schools have never won the award after eleven years of implementation).

In Chile, the programme resulted in substantial gains



### *Israel*

In 1995, a pay for performance programme was implemented in Israel, which aimed to reduce dropout and increase learner achievement. The programme was introduced in 62 secondary comprehensive high schools. This was another rank-order tournament scheme which offered performance awards to the top third of performing schools. The schools were awarded between \$200 and \$715 per teacher (worth about 1% - 2.5% of annual income).

There were significant improvements in learner performance and dropout rates. In secular and religious schools, respectively, improvements were recorded of 0.7 and 1.4 average credits, 0.4 and 0.2 science credits, 1.75 and 3.06 points average score, and 2.1 and 9.6 % of students sitting matric exams.

Later, a second study in Israel (from 2000 to 2001) investigated a pay for performance programme that rewarded 629 teachers from 49 poorly performing high schools with cash bonuses for improvements in English, Hebrew, Arabic and Mathematics in matric. This programme was also a rank-order tournament, but this time it was amongst teachers, in separate subjects, rather than amongst schools. Improvements included 0.22 SD in mathematics credits earned, 0.21 SD in english credits earned, and 0.04 SD in the english matriculation rate.

It was found that the programme caused students to take more exams and attempt to earn more credits. These improvements were linked to changes in teaching methods, extra lessons and individualised instruction, among others. A cost-benefit comparison suggested that this structure of financial incentives for individual teachers was more efficient than group incentives (as tested in the first Israeli programme).

There were significant improvements in learner performance in Israel

### *Mexico*

A comprehensive study in Mexico, undertaken between 1999 and 2001, covered a total of 76 567 Grade 3-6 teachers. Based on qualification, experience, peer review and professional development, these teachers were offered an award in the form of a promotion and a permanent increase worth 24.5% of base salary. The study showed no strong evidence that teachers who were offered strong incentives actually improved learner achievement.

### *Portugal*

In 2007, Portugal implemented a system whereby teachers could progress to an upper salary scale based on learner performance, parental feedback, and attendance, among others. Those teachers who were successful in progressing to the upper salary scale enjoyed a 25% monthly salary increase.

A study on the system, conducted between 2007 and 2009, showed potentially ironic results: it found that the increased focus on teacher performance led to a decline in learner achievement, but at statistically questionable levels of between 0.044 and 0.064 SD across national language, Mathematics and Science exams.



### ***United Kingdom***

In 1999, the United Kingdom introduced a pay for performance programme which was based largely (but not exclusively) on learner performance. The programme offered teachers the chance to move into a higher salary scale, of which the first level was worth a £2 000 career-long annual bonus (or 8.6% of base salary).

A study of 182 teachers and nearly 23 000 pupils from 18 high schools found that the programme did improve test score gains, on average by a very substantial 0.73 of SD in overall GCSE results, including English and Science, but no improvement in GCSE in Mathematics.

### ***United States of America***

Between 1999 and 2003, a total of 16 public schools in **Denver, Colorado** participated in a pay for performance programme. Teachers, if they managed to attain two annual objectives based on student achievement, earned bonuses of \$ 500 (\$750 in the second year) for each objective attained, which amounted to between 2% and 4% of annual salary. The study showed that around 90% of teachers attained at least one objective and were rewarded.

On the basis of the pilot study above, the Denver Public Schools system designed a formal Professional Compensation System (ProComp) which has been in operation since 2006. New teachers are automatically enrolled in ProComp, and existing teachers can choose whether or not to join. Improving learner achievement is one of four areas considered for reward. The others are professional development, formal evaluations and hard-to-staff subjects and schools. There has been a significant increase in learner achievement, with learners achieving a substantial 0.35 SD higher in Mathematics and 0.20 SD higher in reading, although researchers have not been able unambiguously to ascribe this to ProComp.

Another pay for performance programme has been in operation in **Houston** since 2007. The programme, called ASPIRE, pays bonuses to teachers on the basis of their learners' performance. Teachers can receive a maximum of \$7 300 in incentives (about 16% of annual salary). However, gains here have been limited and statistically insignificant.

A small pay for performance programme was piloted in **Little Rock, Arkansas** in 2004 at two elementary schools, using three control schools. Teachers could earn per-learner bonuses, depending on the entire class' average test score gains, in increments of 5%: ranging from \$50 per learner if the class gained between 0% and 4%, to \$400 per learner if the class gained above 15%. The maximum bonus a teacher could be awarded translated into about 26% of annual salary.

Although it was found that learners' Mathematics proficiency levels increased, the small size of the programme and the lack of random assignment meant that the results could be attributed to unrelated factors.

**Tennessee** was one of the first US states to take action against the declining quality of education in America by reducing class sizes and improving teacher quality and retention. This Career Ladder

A Professional Compensation System was implemented in Denver in 2006



Evaluation System was implemented in the mid-1980s and has since been discontinued, but the programme has provided researchers with some useful data. Teachers could progress up a career ladder with commensurate salary increases of between \$1 000 and \$7 000 (approximately 3.5 to 27% of annual salary). Researchers have concluded that the programme had mixed success, with learner improvements of 2.7 percentile points in Mathematics, but an insignificant 1.6 percentile points in reading.

The state of **Texas** has featured prominently in pay for performance research, with two recent state-wide studies. The first, the Governor's Educator Excellence Grant (GEEG) programme, awarded three-year grants to schools to implement and design pay for performance programmes from 2005 to 2007. This tournament-style programme was implemented in 99 high poverty, high performing Texas schools, and allowed schools to distribute bonuses up to \$3 000 (7% of annual salary) to teachers for improved learner achievement. At the end of the day, however, the study revealed no significant results.

The second study, the Texas Educator Excellence Grant (TEEG) was similar in that it provided annual grants to schools for designing tournament-style performance pay plans, from 2006 to 2009. TEEG differed mainly in being much larger in scale, involving about 1 000 high poverty, high performing public schools. Again, teachers could earn bonuses worth up to 7% of annual salary, but, like GEEG, there was no systematic effect on learner achievement.

Another study from the US in 2000 investigated the relationship between individual teacher performance incentives and student achievement. The researchers found that test scores were higher in schools which offered individual financial incentives for good performance. Interestingly, the study found that there is a stronger relationship between merit pay for teachers and student test scores where there is the least parental involvement. In the final analysis, however, because of the limitations of the study, the researchers warn that the results should be interpreted with caution.

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### ***International Comparisons***

A comparative study on an international level, of 28 OECD countries, found that learners of teachers who are recipients of a pay for performance programme perform substantially better at about 0.25 SD higher in Mathematics than learners in countries without teacher performance pay. A similar percentage was found for reading, and a substantial 0.15 SD higher for Science.



### **SUMMARY OF RESULTS: PAY FOR PERFORMANCE**

- The results of pay-for-performance incentives schemes are variable but broadly positive; and
- Are generally stronger in more developing than in developed countries, perhaps reflecting a diluting effect of rewards upon teachers when there is a higher base salary; and
- Are stronger when the 'free rider effect' is eliminated by rewarding individual good teachers rather than groups; yet
- The design of incentives is important, with more sophisticated incentives that avoid 'perverse effects' or 'short-cuts' being more likely to achieve proven effects upon student scores

### **Perspectives on teacher pay for performance in South Africa**

Although no systematic pay for performance programmes for teachers have been piloted in South Africa to date, the idea of teacher pay for performance has been on the agenda for a number of years. An indication of current thinking on pay for performance for teachers can be gleaned from the following fields of research: teacher education; teacher salaries; and education policy and planning.

#### ***Teacher education***

A 2006 report on a Department of Education questionnaire-based survey of teachers at 740 secondary schools, revealed that teachers supported the idea of incentives for teaching scarce subjects, like Mathematics and Science, or for teaching in rural schools. They also appeared to prefer cash incentives above all other kinds of incentives. (There have been some ad hoc, modest incentive schemes adopted in the past especially in former House of Assembly Schools, but they would not qualify as a 'policy pilot' or test of opinion in any way).

#### ***Teacher salaries***

Despite perceptions among teachers and the general public that teachers are not paid well, research over the past decade confirms that teachers in South Africa are more than adequately paid. This is the case whether in comparison to other professionals, to public and private sector workers in general, and to most other countries. Teachers earn more than the rest of the South African labour force (some 64% more in 2004), including both the average private sector worker and other public sector workers. It is only in relation to independent professionals such as lawyers and doctors, that teachers are at a pay disadvantage. This point has been made in the National Planning Commission (NPC) chapters on education, amongst other studies.

However, when it comes to experience and years of tenure, teachers at the top end are underpaid, whereas teachers at the bottom end are overpaid. It has been argued that the relatively flat salary structure has provided little incentive for teachers to perform.

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Research indicates that in general teachers in South Africa are more than adequately paid

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It is in the context of a reconsideration of how teachers are paid in South Africa that the idea of pay for performance has come to the fore. In 2008, an agreement between government and teachers unions led to the Occupation Specific Dispensation (OSD) which linked pay to certain criteria, such as performance, qualifications, competencies and experience. The agreement promised pay comparable to that of other professions, particularly in the form of future increases for young teachers. The OSD changed South Africa's age-pay slope from one of the flattest to one of the steepest in the world, that is to say there are more 'rungs on the ladder'.

However, the performance element of the agreement has not yet been implemented, due in part to union resistance, and also to budgetary constraints in the current recession.

### ***Education policy and planning***

Since about 2003, official education policy documents have called for raised teacher productivity and to pay teachers more for greater effort in a variety of areas (such as in scarce subjects and rural schools). The National Policy Framework for Teacher Education and Development (2006) revamped the basis for the professional development of teachers on a national scale, but made no mention of actual pay for performance. It did, however, make a substantial contribution to the growing debate over the quality of teachers and teaching in South Africa by mooted the establishment of a Continuing Professional Teacher Development system which would require teachers to earn points by undertaking knowledge and skills-based training and development courses. This, it was hoped, would place them in a more competitive position for performance recognition and promotion.

More recently, the National Planning Commission (NPC) has directly broached the issue of performance incentives in its National Development Plan of November 2011, recommending that the current teacher salary structure be changed in order to attract and retain good teachers. The NPC acknowledges that performance-based incentives can be controversial, but argues that teacher remuneration should take teacher expertise and commitment into account. This, it says, could be achieved by giving teachers the opportunity to write regular tests based on the subjects they teach on the basis that a fixed number of teachers would receive a financial bonus. Thus, the NPC has called for investigating and then introducing new incentive structures for teachers.

No matter what the incentive, it must be large enough to induce behavioural change among teachers

### **Lessons learnt**

In the light of all of the above, one has to ask, what can be learned with regard to performance pay, both in general and in reference to the South African context?

*Low floor salaries and individual incentives work:* The results of the studies seem closely related to whether the pay for performance programmes took place in a developed or developing country context. The experimental studies that took place in developing countries (i.e., Kenya and India) all showed significant improvements in learner achievement, while those in the US recorded, at best, low or mixed improvements. This probably reflects the diluting effect upon incentives of high floor salaries. Future research needs to test the effects of individual- or school-based, and absolute or incremental, incentives; but the balance of current evidence tends to favour individual incentives.



*Incentives must be substantial but well-designed:* No matter what the size of the incentive, it must be sufficient, i.e., large enough to induce behavioural change among teachers. Research shows that if bonuses are too small, they may be worse than just ineffective: they may actually undermine the motivational effect of the entire programme. On the other hand, bonuses that are too large and crudely designed may increase the likelihood of perverse effects, such as teaching to the test, as well as increasing stress and anxiety among teachers.

*Incentives should neither be too rare nor become the norm:* Careful consideration should be given to eligibility for an award and how many teachers should have a realistic possibility of receiving it. If too many teachers are eligible, the incentive becomes indistinguishable from a normal salary increase or bonus. If too few teachers are able to obtain the reward, too many will see no reason to increase their efforts.

*Careful incentive design is worth the effort:* Even the most well-controlled incentive scheme can have unintended consequences, such as teaching to the test, and even cheating. Badly designed or administered, a system of paying teachers for greater effort may encourage them to concentrate on teaching in ways that are perceived to maximise narrow financial gain. Also, some subjects might suffer in a situation where only certain other subjects are tested.

*Fairness has practical consequences:* Pay for performance programmes have raised concerns about the fairness and accuracy of performance assessments, which could be based (too narrowly) on quantitative test scores or (too subjectively) on qualitative evaluations by principals or peers. Many unions have been suspicious of such programmes for this reason. This re-enforces the point above about the need for care in incentive design.

*Good incentives are part of a diverse system of enhancing quality:* Incentive schemes should not be implemented in a vacuum. In other words, they should be part of an integrated mix of mechanisms put in place with the same overall objective. Incentives, therefore, should be part of an overall plan, and one of a variety of means to ensure teaching quality and improve learner output.

*Durable incentives will require widespread legitimacy:* Closely related to the importance of multiple measures, is the need to ensure that all educational stakeholders are involved in both the design and implementation of pay for performance programmes. The perspectives of unions, administrators, parents, students, politicians, and especially teachers, should be taken into consideration.

*Unions may be a critical variable:* The involvement of teachers' unions could be crucial to the public sector implementation of the process, as such teachers are typically highly unionised, and teacher unions have, historically, tended to oppose and obstruct performance pay programmes. On the other hand, where unions are not significant, for example in the growing private school sector, this constraint need not apply.

*Negative incentives (sanctions) are also needed:* Because strong teacher unions make it difficult to dismiss or discipline underperforming teachers, it is important for any public sector pay for performance programme to have the authority to insist that underperforming teachers undertake

Incentive schemes should not be implemented in a vacuum



additional training and/or improve in their evaluations, or face dismissal. Financial incentives are considered particularly powerful when teachers face sanctions if they underperform.

*Effectiveness of incentives requires supportive school environments:* The effectiveness of an incentive is also heavily dependent on the capacity of the teachers, or the schools, to achieve performance targets with the resources they have available to them. This means ensuring that teachers have the necessary skills, that their classrooms are appropriately equipped (such as with textbooks), and that their colleagues and school principal are supportive.

*Incentives must be affordable on aggregate:* Finally, pay for performance programmes need to be affordable. Not only can they be time-consuming, but also costly in terms of the bonuses awarded, the administration and running costs, and the need to collect, analyse and act upon large amounts of accurate and up-to-date data.

### Recommendations and concluding remarks

Pay for performance programmes are not known for their longevity. Most of the programmes considered here were short-term initiatives, usually lasting between one and three years. However, some have been more durable. The sustainability of many previous pay for performance models may thus be questionable, and despite the increased number of experiments around the world, there is yet to emerge a single approach which has demonstrated sustained success in learner achievement.

The studies examined in this paper have shown mixed results, and there is no universal evidence of a positive link between teacher pay for performance and learner achievement. This is despite the fact that more than half of the studies found that learner achievement improved to a significant extent and that the evidence from the developing country studies, and individual teacher incentives, are particularly encouraging. The positive results do at least make a strong case for more experimental pilot studies to be conducted in South Africa. Given the growing interest in the topic of pay for performance for teachers, there has been an increase in pilot studies around the world, and these could be complemented here.

In South Africa, a well-conceived and properly implemented pilot pay for performance programme experiment would go a long way towards establishing whether and how the country's exceptionally low learner achievement could be addressed using an incentive scheme. Indeed, given the shockingly low performances of South African learners on standardised tests it would be imprudent not to implement such an experiment as a matter of urgency.

The potential benefits of a pilot study are many: not only would it provide a clearer idea of the size and form of incentives to be used and performance criteria, but it would give a clearer idea about the cost implications of a full-scale programme, and its possible relationship to other schooling reforms.

Research from experiments currently being conducted in Victoria, Australia, would go a long way in helping to inform a South Africa pilot study. This research has shown that teacher pay for performance programmes are more likely to be successful when:

Pay for performance programmes need to be affordable



- They give recognition to teachers who provide evidence of professional development;
- Valid, research-based standards and procedures are used;
- Teachers are given the opportunity to learn the necessary skills to put the standards into practice;
- External assessments are used to ensure fairness;
- Government and other employing authorities make a long-term commitment to such initiatives.

Similarly, a recent OECD report advocating a system of incentives for teachers in Mexico identified the following five principles to guide the development of an effective and sustained teacher incentive policy:

- The focus should not simply be on better pay for better performing teachers, but more on the extent to which teachers have improved learning outcomes;
- The incentive system should recognise and support the individual teacher, the team of teachers in a school as well as the profession as a whole; it should be imbedded in a system which supports the continuous improvement of learners, teachers, schools and the country's education system.
- The incentive system should embrace multiple dimensions of motivating teachers - not just financial reward, i.e., an attractive work environment, access to professional development, the promotion of effective teaching practices, etc.)
- The incentive system should provide good feedback mechanisms (to ensure that teachers who do not receive the incentive understand what they can do to improve their performance) and
- The incentive system should reward both good performance and relative improvement.

Pay for performance is not a panacea

What these guidelines and the lessons learned all have in common, is that the design of pay for performance programmes is an all-important consideration. Basic goals and criteria need to be clear and simple, and mechanisms need to be fair and credible. Special care needs to be taken with the issue of fairness: if only some teachers are eligible for incentives, it is important to ensure that this does not produce adverse effects of decreasing motivation and undermining collegiality in the teacher corps more generally.

Finally, pay for performance is not a panacea. In the South African context especially, efficient, competitive and diverse education systems and sub-systems, relevant and up-to-date curricula, well-managed schools and high-quality, qualified teachers are all desperately needed. These will not emerge from implanting pay-for-performance alone, perhaps especially in so-called dysfunctional schools. Ultimately, improving learner achievement through better teaching requires more than just paying teachers more for making an extra effort. Improving learner achievement will also require making teachers aware of their weaknesses, informing them of best practices and motivating them to make the necessary improvements. It also means having a diverse and competitive set of educational subsystems, amongst which parents can choose. This will allow for increased competition between schools and greater accountability to learners and parents; all of which in turn should put more pressure on teachers to perform.



Critically, this will include a vibrant and growing private schooling system within which incentives are most likely to be implemented, tested and survive, and perhaps later serve as models for later adoption within the public schooling system. As matters stand, the state of unionisation within the public system probably leaves us with this as the most realistic way forward.



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