

Topical questions on teacher management



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Teacher management is at the heart of the national strategies implemented to achieve the educational goals set by the international community. Indeed, teachers are a critical factor in the improvement of the quality of education. While the number of out-of-school children has been cut by almost half since 2000 and while the enrolment rate in sub-Saharan Africa has risen from 52% in 1990 to 78% in 2012¹, a drop in the quality of education and in pupil performance has also been observed. SDG 4 highlights the importance of not focusing on quantity to the detriment of quality, stresses teaching quality and grants new importance to teachers (point 4.c). Teachers have the most decisive influence on learning. Their role appears all the more crucial as the quality of education explains differences in GDP growth among the poorest countries more than indicators such as differences in the average number of years of schooling (Bernard, 2007).

In this context, teacher management represents a significant challenge for developing countries striving since the 1990's to cope with high additional needs for teachers. These countries have to supply a sufficient number of teachers with the necessary qualifications and skills and find a balance between salary expenditure, training costs and the quality of education delivered. The attractiveness of the profession and the salary offered are central to teacher management. However, in many developing countries, teacher pay has deteriorated or stagnated in comparison with other professions over the last two decades. Even in cases where remuneration is attractive compared to that of individuals with the same qualifications, it is often too low for teachers to have a decent standard of living.

Furthermore, while it is clear that a higher number of teachers is required, it is equally important for them to have the necessary competencies to ensure quality education. However, teacher-training models do not always guarantee the acquisition of those competencies.

A number of questions around teacher management are thus the subject of debate. The following summaries attempt to provide an overview of the current controversies and debates that frequently arise in the framework of IIEP-UNESCO's work on teacher management. Nine major questions are examined:

1. Why is teacher management so important?
2. What are the links between pupil performance and teacher characteristics?
3. What are the relationships between the academic level of teachers and pupils' results?
4. What are the relationships between the pre-service training of teachers and pupils' results?
5. Should teachers' working hours be increased or decreased?
6. Teacher pay: how can it be analysed? How can it be compared?
7. What are the major aspects to be taken into account in career organisation?
8. Can teachers be evaluated on the basis of pupil performance?
9. What can be learned from organisational audits on teacher management?

¹ United Nations. 2015. « The Millennium Development Goals report 2015 ». New York City: UN. Consulted on: [http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf)

1. Why is teacher management so important?

Teachers are the main resource of any education system and require specific management. Teacher management is a component of human resources management, defined as the search for the best possible match between human resources and the needs of an organisation, in terms of quantity and quality. Teacher management functions include recruitment, training and motivation of personnel, their deployment and the establishment of staffing norms, wage negotiations and organisation of pay, follow up and evaluation of performance, planning of future needs, the development of communication systems or yet again making opportunities available for personal and professional development (UNESCO, 2009; Halliday, 1995: 15-16).

Quantitative education development goals (for example, the goal of access to Education For All) can be achieved more effectively and efficiently if human resources, teachers in particular, are planned, allocated, used and managed with care. Teacher management also plays a key role in achieving the qualitative goals of the Education 2030 agenda, as underlined by the Incheon declaration. Teachers have a strong influence on the quality of education (see question 2) and their performance depends on personnel management in particular. For instance, poor management of teachers can lead to overcrowding of some classrooms and this, together with low salaries, has a very negative impact on teacher motivation. This can result in an increase in absenteeism and voluntary departures, directly affecting the quality of education and pupils' results (UNESCO, 2009; Tournier, 2011). Other aspects of teacher management, such as recruitment, training and promotion also impact the quality and effectiveness of any education system.

Another key role of teacher management concerns the control of public expenditure. In fact, teachers represent half or more of government civil service personnel and their salaries an average of 70% of a ministry of Education's operating budget expenditure (UNESCO, 2009). Ineffective teacher management can as such be very costly. Besides, the question of the balance between the cost represented by teachers and their quality related in particular to the attractiveness of the profession and so to the salary offered, must be central to teacher management. This is especially crucial in developing countries that are continuing to face high additional needs for teachers.

Teacher management therefore affects the cost, allocation and utilisation of teachers as well as their motivation and performance. To address the many challenges encountered in developing countries, a global, coherent and forward-looking approach must be adopted. Effective teacher management, based on the adequate planning of staffing needs, viable recruitment, training, remuneration, deployment and career policies, an adequate monitoring and information system and appropriate rules, structures and procedures, is key to the effective operation of any education system and to the satisfaction of its personnel (UNESCO, 2009; Traore, 1966; Göttelmann-Duret, 1998). Lastly, teacher management must be at the heart of any strategy of expansion and improvement of quality and equity of schooling offered and enable its implementation while controlling public spending.

2. What are the links between pupil performance and teacher characteristics?

In order to achieve the Education for All goals, many governments have focused their most significant efforts on access to education, by massively increasing teacher recruitments. While considerable progress has been made in most countries in terms of enrolment rates, there has sometimes been a simultaneous fall in the quality of education. This explains why debates recently refocused on the quality of education, and particularly on the role of the quality of teachers.

It is widely recognised that the quality of learning depends to a great extent on the quality of the teachers. This seems to be the case in a number of countries: an analysis of the results of *Trends in International Mathematics and Science Study 2011* for grade 4 in 45 countries led to the following observation “the greater the quality of the teacher, the greater the level of achievement” (UNESCO, 2014: 233). Bernard *et al.* measured the impact of the variable represented by the teacher, proving that the “teacher effect” (global effect of the teacher on school achievements) explains 10 to 15 per cent of the variation in the levels of achievement of pupils in developed countries, and 27 per cent on average in francophone sub-Saharan Africa (Bernard *et al.*, 2004).

In the USA, researchers have evaluated the “added value” of a teacher in terms of pupils’ achievements, demonstrating that considerable variations in results may exist depending on the teacher. Some pupils master only half or less than half of the syllabus for their grade at the end of the school year, while others progress by 1.5 grades or more (Hanushek and Rivkin, 2012). The “teacher effect” is cumulative on school results: in the case of two pupils with similar performance in second grade, if one of them has three high “added value” teachers and the second has three low “added value” teachers, their results three years later can register a gap of up to 54 per cent (Sanders and Rivers, 1996).

The teacher is the main factor in terms of impact on pupil performance at school level, no other variable playing such a significant role (Bruns and Luque, 2014). Many studies have arrived at this conclusion, such as meta-analyses to determine the factors most likely to help children to learn. As such, it was observed, in a study of 28 of these factors, that the two most important variables were directly linked to the teacher (Wang *et al.*, 1994, cited in UNESCO, 2005: 172). This finding was confirmed by a summary of 1134 meta-analyses indicating that the teacher is the factor with the greatest influence on raising the level of pupils’ achievements, even when the pupils come from very different backgrounds (Hattie, 1992, cited in UNESCO, 2005: 172; UNESCO, 2009).

The teacher variable is also the one with the most pronounced effect on the school achievements of pupils from modest backgrounds and ethnic minorities (Coleman *et al.*, 1996, cited in Gauthier and Dembélé, 2004: 2-4). Moreover, the role of the teacher is even more important in schools where children are from underprivileged backgrounds (Nye *et al.*, 2004). The teacher therefore plays a vital role in terms of the quality of learning but also of equity.

While the “teacher effect” is crucial, research tends to show that it is not necessarily linked to the academic level of teachers, to their training or even their level of salary. These aspects, often presented as highly decisive, have in fact proved to be hardly or not significantly linked to pupil performance (Rasera, 2012; Bernard, 2007; Costrell, Hanushek, and Loeb, 2008; Hanushek, 1998; Hanushek, 1996). The “teacher effect” also seems impacted by other factors,

such as contextual factors – for example, the absenteeism of a teacher having to go into town to collect their salary or due to the rainy season (instruction time has an impact on performance) -, or else administrative factors – for example, a delay in payments having a negative effect on the teacher’s motivation. This is why it may seem more relevant to speak of a “context effect” or a “class effect” rather than a “teacher effect”, in reference to all the factors involved in the provision of quality education. Added to that is the importance of the characteristics and social competencies of each teacher, such as their charisma and capacity to motivate their pupils. The effectiveness of the teacher cannot be put down to a single factor. The “teacher/class/context effect” thus shows that the teacher plays a decisive role for quality education, but that the teacher-pupil performance relationship is complex (UNESCO, 2009) and is a result of multiple factors demanding a consistent context-related teacher management system.

3. What are the relationships between the academic level of teachers and pupils’ results?

The growing attention placed on the quality of education and the factors for improving it has generated debates on the impact of the pre-service vocational training of teachers but also on that of their academic level. Indeed, while it is commonly acknowledged that a minimum academic level is required in order to teach, there are divergences as to this level. As a university level is generally required to teach in secondary education, this question therefore concerns mainly primary school teaching. In most developed countries, a minimum level equivalent to a baccalaureate (high school diploma) + 2 years (and often baccalaureate + 4 or +5 years) is required, whereas in African countries levels of qualification are very variable: from a primary school leaving certificate to a university degree. In sub-Saharan Africa especially, the sharp increase in needs for teachers and the lack of qualified candidates has led to recruiting candidates with a generally low academic level. It can therefore be asked if an increase in the level of qualifications required to teach in primary school would enable an improvement in the quality of education and pupil performance in these countries.

However, research findings contradict this intuition and tend to show that, beyond a given threshold, there is no relationship between the academic level of teachers and pupil performance, this being particularly the case at primary school level (Wayne and Youngs, 2003). Studies conducted in the USA prove as such that raising the level to a university degree does not automatically translate into better pupil achievements (Rivkin, Hanushek and Kain, 2005; Krueger, 1999). In the African context, where academic levels are very heterogeneous, this is confirmed: the effects of academic education on pupils’ results are moderate, or even non-existent (Mingat and Suchat, 2000 cited in Bernard *et al.*, 2004). Studies carried out by CONFEMEN Programme for the analysis of education systems (PASEC) in nine Francophone sub-Saharan African countries demonstrate that teachers who have followed upper secondary education do not have a more positive effect on pupil learning than those who have only followed lower secondary education (Bernard *et al.*, 2004).

The absence of a relationship between the academic level and the quality of a teacher can be explained in particular by motivation issues: highly qualified individuals will have high professional aspirations and expectations that do not always correspond to the reality of the teaching profession (Michaelowa, 2003, cited in Bernard *et al.*, 2004). In addition, pedagogical practices used in Africa are often based on so-called frontal methods (lectures, rote learning,

collective sentence repetition, etc.) (UNESCO, 2009; Bernard *et al.*, 2004), requiring not necessarily a high level of education but rather a good deal of versatility, whilst a higher level of education encourages specialisation.

These findings are nevertheless to be interpreted with caution. They do not imply that an academic education is unnecessary but “rather that the levels of training present in the education systems – ranging generally from lower secondary education to a university education – finally generate little difference in pupil achievements” (Bernard *et al.*, 2004:16). So, a minimum threshold of studies does remain necessary: 10 years of validated schooling (UNESCO, 2009) or a lower secondary school leaving certificate (Bernard *et al.*, 2004). This condition in itself is not sufficient and must be combined with other criteria (selection at the time of recruitment, training) in order to be sure of the quality of the teacher.

4. What are the relationships between the pre-service training of teachers and pupils' results?

The role of pre-service training on teacher quality has been subject to debate since the 1990's. It is true that the teacher's presence, attitude and investment (which also depend on a number of variables, such as their living and working conditions, their motivation, etc.) are yet other factors that also influence the quality of the teacher, measured in terms of their pupils' results. The number of parameters to be taken into account, their respective weight and their interactions make it difficult to establish a clear link between teacher training and quality.

Studies conducted in the USA demonstrate that pre-service training has very little effect or is even of no significance on pupils' results (Rivkin, Hanushek and Kain, 2005; Harris and Sass, 2010). In the context of Francophone sub-Saharan Africa, the studies conducted by the Programme for the analysis of education systems (PASEC) demonstrated that pre-service vocational training had often in reality little effect, noting that the teachers who had followed a training course did not make their pupils progress more than untrained teachers (Bernard *et al.*, 2004).

These findings do not however lead to the conclusion that initial training is not useful, but rather that current training is not adapted to the challenges the teachers encounter in exercising their profession (Bernard *et al.*, 2004). Indeed, training today is probably too standardised and academic to be effective (Harris and Sass, 2010). The study of precise training examples indicates that their effectiveness depends on different factors, such as programme content or duration (Bernard *et al.*, 2004).

Aside from that, PASEC has conducted two studies in Guinea comparing 2,000 teachers, some of whom had received two years of so-called traditional pre-service training (training upstream of variable duration directed mainly toward academic and theoretical competencies, leading to a diploma granting teacher status, followed by an official first post) and others only one year of training with the accent on professional practices such as pupil-centred pedagogical practices and group work. Teachers from both groups were recruited as civil servants upon completion of their training. The study showed that teachers who had participated in the vocational training obtained better results (measured through the results of their pupils) in their first year of teaching, and then the results wore off subsequently to become practically equivalent 5 years later (PASEC, 2003). This study shows that training does exist with modalities and content

enabling a reduction in duration and so in the cost of teacher training. It is important however to emphasise that “doing as well as” but cheaper than traditional training cannot be considered as a solution if it does not improve the quality of teaching.

Studies on teacher training (Perrenoud, Altet, Lessard, Paquay, 2008) show to what extent “the business of intervening in the activity of others” is complex and requires a high level of training, on academic, didactic and pedagogical levels. As such, the absence of a link between initial vocational training and pupils’ learning achievements observed in the current findings must not lead governments to neglect training but rather to rethink it, in order to make it more effective.

Hattie, with a meta-analysis of over 800 studies on the decisive factors of pupil performance, was also able to establish the key – albeit difficult to measure – competencies of teachers. It appears that teacher training must aim at developing class leadership competencies and pupil-centred practices, such as group work for example, feedback or the flipped classroom. Social competency also proves decisive (Attakorn *et al.*, 2014; Hattie, 2008; Cornelius-White, 2007; Evertson, 2006; Marzano, Marzano, and Pickering 2003; Walberg, 1990). However, in developing countries, and particularly in sub-Saharan Africa, teachers are seldom trained in such practices: the frontal method, sentence repetition and group recitation of answers are frequent practices, which do not nurture critical thinking, concept development or teamwork (Akyeampong *et al.*, 2013; O’Sullivan, 2006; O-saki and Agu, 2002; Hornberger and Chick, 2001). Moreover, studies reveal that some teachers do not have the minimum required level in mathematics and language (of their country) in order to deliver a lesson (CONFEMEN, PASEC 2014). These research findings must be taken into account when elaborating new effective and qualitative training models.

5. Should teachers’ working hours be increased or decreased?

In order to control public spending and to ensure quality education, the use of teachers must be optimised. There are several possibilities for doing so, one of them being to increase the working hours of teachers in order to reduce the number of posts and so recruitments.

The strong variations observed in the statutory working hours of teachers among countries offer an interesting perspective of comparison. In fact, regulations in most countries in Europe and Asia require between 1,600 and 1,800 hours of work from their teachers per annum, whereas those in force in sub-Saharan Africa generally provide for between 800 and 1,300 hours per annum (UNESCO-ISU, 2006) and there are great disparities between the different African countries as to the official working hours. However, some precautions are to be taken when comparing these data. It is indeed complex to truly grasp the hours worked by teachers: teaching hours must be taken into account but also the time devoted to lesson preparation, support and consultation with the rest of the pedagogical team.

In addition, any reflection on teachers’ working hours must take into account the fact that the statutory hours do not always correspond to the actual working hours of in-post teachers. It is therefore useful to raise the question of the optimal utilisation of teaching staff in the schools. This depends on many factors: effective timetable management at school level but also school size and structure, teacher versatility, job flexibility. The importance of these factors illustrates why it is just as relevant to speak of the “class effect” as of the “teacher effect”, given the decisive nature of the environment of each class.

It should also be asked if the official instruction time reflects the actual number of hours of lessons received by the pupils. Indeed, some developing countries face a major problem of teacher absenteeism, which deprives pupils of 8 to 25% of their annual instruction time (UNESCO, 2008). Increasing working hours could make matters worse, if not accompanied by a change in behaviours.

Introducing a measure to increase working hours is therefore complex. If supporting measures (small salary increases or other compensation; assistance in some tasks, etc.) are not taken into account, then there is a risk of increasing teacher absenteeism and lowering their motivation but also of reducing the time teachers spend preparing lessons, correcting pupils' work and consulting with the rest of the pedagogical team.

Indeed, in a perspective of budget restrictions, an increase in teachers' working hours would be synonymous of an increase in the time they must devote to teaching. Now, the higher the number of hours of instruction, the less time teachers have to prepare their lessons, which is detrimental to quality (Duflo, Dupas, and Kremer 2012; Burns and Darling-Hammond, 2014). They also have less time to devote to working with the rest of the pedagogical team, which is however essential for teacher satisfaction (Burns, D. and Darling-Hammond, L., 2014) and the quality of a school (OECD, 2009).

Finally, any reform concerning teachers' working hours must be preceded by a precise study of the national context. An eloquent example is that of the USA, where teaching time is considered as very high compared to other countries (OECD, 2014: 387). Firstly, the data are often biased in these studies and tend to overestimate the differences in working hours (Abrams, 2015). Next, some maintain that the main problem with the American education system is not teachers' working hours but the time teachers devote, in class, to the preparation of the national standardised tests (Sparks, 2015). In this case, a reform of working hours, based on international comparisons, would not be a relevant strategy.

6. Teacher pay: how can it be analysed? How can it be compared?

Remuneration is the subject of recurring debate in teacher management. Indeed, the average level and structure of remuneration over the course of a career have significant consequences on the cost of salary expenditure, and indirectly on the volume of teaching staff. Moreover, salary can have an impact on teacher satisfaction and so on their motivation. This is why it proves important to compare teacher remuneration with the situation on the national employment market. However, measuring salary levels, and drawing comparisons between them in particular, turns out to be quite complex. There are few international data that take into account the different salary levels of teachers according to their qualifications and experience. These analyses should also include the additional advantages benefiting teachers (housing, insurance, etc.), which are very significant in some countries (UNESCO-ISU, 2006).

➤ **A complex challenge: Comparing salaries across countries**

Comparing teacher salaries across countries is a difficult task. Indeed, official exchange rates do not always reflect the real purchasing power of the inhabitants of a country and converting local currencies into a same currency is therefore misleading. As such, two alternative methods are usually used for international comparisons: salaries measured in purchasing power parity

(PPP) and salaries expressed in relation to GDP per capita for each country. The latter indicator has the advantage of being relatively simple and intuitive, while enabling the comparison of teacher salary trends over time compared to the evolution of gross domestic product (GDP) per capita, particularly in developing countries (Gannicott, 2009).

Nevertheless, there are limits to this type of comparison. So, when salary is considered in terms of GDP per capita, teachers in the least developed countries seem favoured compared to those in developed countries. The level of teacher remuneration expressed in comparison to GDP per capita depends on the level of economic development of each country: when a country becomes wealthier, salaries decrease related to GDP (Mingat, 2004). In relative terms, teacher pay is therefore higher in less developed countries but that is explained by the fact that their inhabitants work mainly in the informal sector and live in conditions of extreme poverty, as the average GDP per capita is generally insufficient for a minimum level of decent living conditions. In comparison, teachers' salaries, set by the central public administration, thus seem high, whereas many teachers hold down a second job in order to cover their basic needs. In medium- or high-income countries on the contrary, the average wealth per capita is generally sufficient to cover the bare necessities and teachers' salaries are set so as not to be too far from GDP per capita. Also, due to a much better developed employment sector, the subsistence of the teacher's family has a strong chance of not relying on the teacher's salary alone.

The comparison with GDP per capita does not therefore offer a complete picture of the reality of each country and other indicators must be used in order to describe the level of teachers' salaries: comparisons with other professions in the country, a study of the cost of living, of the number of teachers with a second job. It can nevertheless be interesting to study the relationship between salary and GDP per capita in order to assess to what extent the State has the financial capacity to offer salaries that make the profession attractive. In developing countries, the question of the compatibility of teacher salary level and the education system's expansion goals must also be taken into account.

➤ ***Comparing teacher salary with that of individuals with similar qualifications: the case of developing countries***

It is important to remember that in most countries there are generally two main employment sectors, which are very different in size and structure, the "modern" sector and the "informal" sector. The "modern" sector groups together all public and private formal employment. The "informal" sector categorises so-called traditional work (e.g. farming) and informal jobs in urban contexts. Teachers are part of the modern employment sector and, as such, their salary should be compared within this sector with individuals who have similar academic qualifications.

The table below gives, according to the employment sector, the level of income (annual basis, expressed in units of GDP per capita) of individuals from the age of 25 to 34 who have completed lower or upper secondary school in 9 African countries. For these countries, the distinction is made between public sector and private sector income on the modern employment market.

Figure 1: Annual income (GDP per capita) of individuals aged between 25 and 34 who have completed lower or upper secondary education, according to employment sector, in 9 African countries

Country	Modern sector		Informal sector	Average teacher salary
	Public	Private		
Burkina Faso (2002)	4.66	3.83	4.07	6.4
Cameroon (2001)	1.98	1.82	1.02	3.9
Chad (2002)	4.32	3.81	3.52	5.4
Côte d'Ivoire (2002)	3.38	2.84	1.49	4.8
Madagascar (2001)	2.65	2.06	1.22	4.4
Mali (2004)	5.00	2.48	2.36	6.0
Mauritania (2005)	2.18	3.26	2.68	3.3
Sierra Leone (2003)	5.35	6.27	4.37	4.2
Uganda (2002)	3.40	3.60	2.30	3.2
Average	3.66	3.33	2.56	4.6

Source: UNESCO, 2009

The declared level of income is better on average in the public sector than in the private sector. The results suggest that teachers' salaries are higher (by 40%) than the average salary of workers in the modern private sector, with the same profile in terms of initial training and duration of their professional career; the gap is even greater in the informal sector (50%). Individuals with comparable qualifications to those of teachers, but who have not found a job in the modern sector, are obliged to work in the informal sector to avoid unemployment. To summarise, it is therefore important to note that the level of remuneration of teachers employed in the public sector is much higher on average than the equilibrium wage on the national employment market. However, a large number of surveys are required in order to appreciate and compare in more detail the relative situation of each country.

When comparing teacher salary with that of individuals with the same qualifications in other sectors, it is judicious to take into account the starting salary and the way in which this evolves throughout the career. In-depth surveys, based on household surveys and employment surveys, have demonstrated that there is no significant difference between the income declared by teachers in the public sector and other workers in the public sector belonging to the same age group (25-34).

➤ **Link between salaries and quality of teaching**

The question of teacher salary is also related to the quality of education. Indeed, a relatively attractive salary may be an important source of motivation for teachers, attracting the most qualified graduates to the profession and retaining them in the system over time, thus leading to an improvement in the quality of the education process. A relatively low salary is liable to have a negative affect on the attractiveness of the profession, motivation and the quality of teaching

(Nickell and Quintini, 2002; McKinsey and Company, 2007) but can enable a larger stock of teachers, and as a result a reduction in the pupil-teacher ratio. However, the increase in salary hits a 'glass ceiling' at some point, after which pupil performance no longer improves (UNESCO, 2009). A simulation of the completion rate according to salary level, volume of educational resources mobilised and repetition rate, shows that for an average African country, a completion rate of up to 75% can be achieved for a level of salary equivalent to 3.4 – 4 times national GDP per capita. A level of salary beyond this threshold will not enable an improvement in the completion rate. In other words, high salaries bring about a contraction of public education and the impact on pupil performance is not exponential (Mingat 2004).

7. What are the major aspects to be taken into account in career organisation?

Career organisation encompasses the management rules for the vertical and horizontal progression of staff. It must enable any education system to attract and gain the loyalty of the most qualified, experienced and motivated people by establishing employment conditions and professional promotion possibilities that are appropriate and relevant for teachers.

One of the first aspects of the career progression of teachers concerns salary trend. Just like the level of salary, the structure of teacher remuneration throughout their career greatly varies from one country to another. Some countries have opted for a high starting salary, others for a sharp increase in salary after a number of years on the job. The salary progress scale can be more or less "flat": data from UNESCO's Institute for Statistics in 2003 show that the time taken for a secondary school teacher to go from the minimum to the maximum salary varies from 3 years in Kenya to 43 years in Lebanon. For the needs of quality of learning, reaching the salary ceiling late could encourage teachers to continue performing well and remain dedicated throughout their career. In addition, a relatively low starting salary but with significant progression thereafter seems the most effective in terms of costs. However, according to the findings of some comparative research conducted in Asia, the countries characterised by high levels of pupil performance at the end of lower secondary school offer teachers a relatively high starting salary, comparable to that of similar professions (Gannicott, 2009). Salary structure must in fact be adapted to each context, and in particular to the number of candidates qualified for the profession.

Career organisation also concerns promotion possibilities. Indeed, teacher satisfaction is linked to career prospects and diversity of functions (OECD, 2005). Promotion possibilities must therefore be offered in order to ensure teacher motivation. The organisation of teachers' careers tends to favour a vertical progression, leading teachers to occupy managerial or administrative posts: head teacher, school inspector, regional or district head of education, planning or consultancy positions or management posts at central education level or with the ministry, etc. Faced with the lack of options for horizontal and transversal mobility, such as tutor teacher, programme development specialist or head of external relations and partnerships, teachers sometimes aspire to administrative positions in order to improve their remuneration. Beyond the salary argument, it is not unusual to see particularly motivated and competent teachers leaving the classrooms for positions offering better development prospects and more leeway than that afforded to teachers in a large number of countries. It is therefore important to offer teachers flexible career options, while leaving the door open upwards to management posts and

administrative posts, which should be entrusted to experienced teachers who have followed the necessary training (Crehan, 2016).

Another important aspect of the organization of teachers' careers concerns the debate between a unique status and statutory diversity. Status diversification is the primary policy option by which many developing countries have approached the challenge of adjusting teacher remuneration in order to continue and accelerate the development of their education system. They have given priority to short-term contracts, together with lower pay and fewer advantages. Three teacher categories exist depending on the context: permanent government employees (civil servants), government contract teachers (teachers accepting to work outside the labour convention framework, often for a lower salary than civil servants) and community teachers (recruited and directed by the head teachers or parents and often paid a ridiculously low salary). Increasing the share of non-civil servant teachers has made it possible to cope with the rapid rise in enrolments in developing countries, while limiting salary expenditure. Teachers with lower status and remuneration are generally less qualified, which raises the question of the effective training of teachers, independent of their status. It should be emphasized that the fact of being qualified must not be confused with the academic level of qualification, as teachers with the highest level of qualifications do not necessarily have the pedagogical competencies required to deliver quality education. Besides, research has shown that untrained teachers, such as contract teachers, can obtain better results, due in particular to a lower rate of absenteeism, which may be explained by the fact that they have been chosen among and by the community and are, consequently, better integrated and held more accountable (UNESCO, 2009).

However, status diversification also tends to foster conflicts and strikes, due to a deficient payment system or when subsequent arrangements to integrate contract/community teachers in a career system for all are not established. In addition, status diversification has an impact on the way the profession is considered: recruiting untrained less-qualified teachers has had a negative effect in terms of attracting the best candidates (UNESCO, 2009).

8. Can teachers be evaluated on the basis of pupil performance?

There is a consensus on the fact that teacher evaluation constitutes an essential lever for improving the quality of teaching, along with in-service training. On the other hand, the question of the methods and tools used for this evaluation is cause for debate. Many approaches can be envisaged: lesson observation, interviews with the teacher, parent and pupil surveys, etc. Pupils' results are not usually used as convincing sources of information for teacher evaluation, but the possibility is currently being discussed.

In fact, in a results-based evaluation approach, it may seem attractive for deciders to take pupil performance as a basis. Over the past two decades, a large number of initiatives have been developed worldwide (such as in Chile, Japan, the United Kingdom and in some USA states) with the aim of correlating teacher remuneration with the results obtained by the pupils. However, opinions are divided on this type of evaluation technique. Research conducted in the USA has proved that this type of evaluation and incentive has little impact on pupils' results (Springer *et al.*, 2010). On the other hand, the study of a teacher bonus programme in Israel has shown that pupils whose teachers were following the programme obtained better results than the others (Lavy, 2004). Teachers declared that they had modified their way of working,

especially by organising classroom time after school. Similar results have been obtained in India (Muralidharan and Sundararaman, 2009).

These contradictory results can be explained first of all by the difficulty of measuring a teacher's performance through the results of their pupils. Indeed, isolating the many external factors that have an influence on pupil learning acquisitions is complex. The teacher of one subject may have an influence on a pupil's results in another subject and a pupil's former teachers may also have an impact on their performance (Koretz, 2002). Finally, and above all, pupils' results are influenced by their characteristics, their social and family background, etc. Factors such as poverty or a lack of parental support play an important role.

Beyond the difficulties related to the validity of this measure, teacher evaluation programmes based on pupils' results are also criticised for a number of negative effects on the behaviour of teachers.

Firstly, due to the many factors influencing pupils' results, a teacher performance evaluation based on the latter can lead to demotivating the staff, when they consider that they are not being treated fairly. This method may also discourage teachers to work with pupils with difficulties. In this respect, the introduction of bonus programmes at school level in North Carolina led to an increase in the number of teachers leaving or avoiding schools that accepted pupils with difficulties and from underprivileged areas (Clotfelter *et al.*, 2008). In order to avoid this problem, most of these evaluation systems attempt to measure pupil progress and the other characteristics liable to have an impact on their results (Podgursky and Springer, 2007). Nevertheless, this does not always take sufficiently into account the difficulty of improving the results of certain pupils.

This type of evaluation can also have a negative effect on teachers' behaviour outside the classroom, by encouraging individualistic attitudes and introducing competition between colleagues (Murnane and Cohen, 1986). This has a negative effect on teachers' morale and reduces teamwork, reasons that have led to abandoning the system in Mongolia (ILO, 2012). One solution could be to introduce collective evaluation, with the risk of leading to cases of "free riding" (the lower performance of some teachers is then concealed by the good performance of other teachers) (Prendergast, 1999).

Finally, this type of evaluation encourages teachers to focus on subjects directly linked to the tests used for evaluation and to give priority to short-term learning (Glewwe, Holla and Kremer, 2009). An improvement in pupils' results is thus sometimes explained by intensive test preparation and by teaching limited to test subjects, whereas the objectives of education are wider and sometimes non-measurable, including social relations, behaviour and ethics. A focus on test subjects was noted for example in India and Kenya when teachers were subjected to evaluation based on pupils' results (ILO, 2012). These evaluations also encourage teachers to cheat (Jacob and Levitt, 2003) or to strategically exclude the lowest-achieving pupils from exams (Cullen and Reback, 2006).

Analyses over the long term, studying the trend in pupils' results but also the behaviour of teachers, would be necessary in order to decide on the effect of teacher evaluation based on their pupils' performance. Meanwhile, other interesting practices have emerged in countries that avoid this type of evaluation, such as Finland, Canada and Cuba (Verger *et al.*, 2013).

9. What can be learned from organisational audits on teacher management?

Teacher effectiveness is closely related to their motivation, and the latter is influenced by the way in which they are managed. Inadequate management can lead teachers and teacher managers to adopt behaviours that influence their distribution and utilisation, with negative effects on the effectiveness and the quality of the education systems. Teacher management is related to its organisational framework, i.e. the structures, rules and procedures, tools, management personnel, communication and social dialogue.

Structures

Analysing management structures, through the assessment of their mandates and responsibilities (Sack and Saïdi, 1997), enables identification of the share of the ministry of education's operational control in the management of education sector personnel. At national level, the ministry of education does not have sole involvement in teacher management and, within the ministry itself, several structures play a role, such as the human resources department, the department of primary/secondary education and the planning department. In addition, Teaching Service Commissions are in charge of recruiting teachers in Anglophone Africa. Problems of coordination can arise from the diversity of structures if responsibilities and articulations of responsibilities are not clearly defined. Teacher pay management is an eloquent example (VSO, 2002). In some countries, newly recruited teachers must wait before figuring on the payroll and then experience numerous payment delays, as in Ghana, where up to 50% of teachers interviewed in rural schools say they are not paid on time (VSO, 2002). Also, the limited mandate of the ministries of education in the field of human resources reduces their autonomy and their capacity to develop and implement effective teacher management strategies. Thus, at central and ministry level, the ministries rarely have any control over the reward and incentive system applied to teachers, and which is often common to all civil servants. At decentralised level, the ill-adapted formulation and distribution of allocated tasks and the lack of resources can limit the capacity of staff to intervene effectively in teacher management. While many countries have engaged in reforms introducing the decentralisation of teacher management tasks, this often takes place without a clear framework for the delegation of competencies and the necessary resources.

Rules and procedures

Understanding the operations of a ministry of education requires "a clear delineation of the network of procedures, rules and regulations (PRR) currently on the books" (Sack and Saïdi, 1997: 42). PRR generally apply to the administrative aspects of behaviour in a Ministry of National Education, for example "Who (...) has formal power (...) to authorise, approve or recommend expenditures, staff travel, staff leave, staff transfers, promotion (...)" (Sack and Saïdi, 1997: 42). The analysis of the PRR and their implications focuses in particular on internal coherence and consistency, knowledge and respect. Among the difficulties frequently observed are the non-existence of rules and/or absence of dissemination of these rules, creating "conflicts, power voids, overlapping and duplication of efforts" in many African administrations (Göttelmann-Duret and Hogan, 1998: 38). Another challenge to teacher management frequently encountered is the existence of inappropriate or little-enforced norms. For example, the norms and criteria applied to assignments or transfers accentuate the problems in some cases rather than settling them. The non-application of teachers' codes of conduct is also a problem, particularly in terms of ethics and absenteeism. In fact, the respect of ethical norms and of the

rules of professional conduct must be considered together with the question of rules and procedures. Even when formal rules and procedures seem to be rational, “organisation deviance” is observed in many fields of teacher management. This distorts the deployment and promotion process and demotivates teachers who respect the rules. When circumvention of the rules or corruption is public knowledge, and sanctions are not applied, this can undermine teachers’ confidence in the management structures. Many cases of corruption, of political interference and favouritism in the process of assigning teachers are observed (VSO, 2002; Hallak and Poisson 2006; Bennell and Akyeampong 2007). Besides, official sanctions are seldom applied as demonstrated by the example of absenteeism in India (World Bank, 23 March 2006). This is linked more particularly to the absence of authority of head teachers (Bennell, 2007) and to the complex and lengthy disciplinary procedures.

Human resources management and monitoring tools

To be effective, managers need to benefit from an adapted management information system. According to Sack and Saïdi, “A national ministry of education can be characterised by: the quantity of effective information it produces; the quality of that information; its availability for those concerned both inside and outside the ministry; and the time taken for the information to be available and used” (1997: 47). Now, despite considerable progress over the last two decades, effective information systems are still lacking in many developing countries. Managers in the education sector generally have to make do with incomplete, obsolete and unreliable information databases, which are not interconnected (Göttelmann-Duret and Hogan, 2008). For instance, they rarely know precisely the number of in-post teachers, and even less their exact professional and personal status. The situation is made worse by the absence of effective monitoring devices to check the accuracy of data collected.

Management personnel

According to Sack and Saïdi, « Staff are the most precious resource of a ministry of national education: it is they who (...) determine the organization’s effectiveness and efficiency. Recognising this implies taking a close look at how they are recruited and the adequacy of their qualifications for the tasks required of them” (1997: 53). Teachers and non-teaching staff in pedagogical and administrative positions are taken into account here. The poor quality of a part of the management staff and the lack of compatibility between their profile and the positions filled represent a visible constraint on the effective management of human resources. In reality, this results from failings on three levels: candidate profiles (the majority of administrative staff is made up of teachers and inspectors); recruitment procedures (frequent absence of true procedures, requiring the announcement of a post with a precise mandate) and organisation of vacancies (ministries rarely have a precise idea of the number of posts necessary in each unit and of the qualification criteria required for candidates to these posts) (De Grauwe *et al.*, 2009).

Communication and social dialogue

It is often noted that important information does not always reach the teachers, in particular in schools that are rarely visited. Head teachers and teachers are not always involved in consultations. Now, the main source of teacher demotivation is their lack of participation in the decision processes concerning them (VSO, 2002). The limited involvement of teachers in the consultation processes is often due to organisational reasons: lack of time, potentially high costs, uncertainty of reaching a consensus and risk of demagoguery. In addition, teacher representatives do not always have their say in the negotiations when external donors are involved (GCE, 2006: 52). While the opinions of teachers are crucial for the development and effective implementation of reforms, the way in which their opinion should be collected is

complex, in so much as the modalities may impact – stimulate or, on the contrary, block – a reform process.

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