



# Exploring the organisation and management of teacher careers

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## Abbreviations

<b>EFA</b>	Education for All
<b>MDG</b>	Millennium Development Goals
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OECS</b>	Organisation of Eastern Caribbean States
<b>SACMEQ</b>	Southern and Eastern Africa Consortium for Monitoring Educational Quality
<b>ToC</b>	Theory of Change
<b>VSO</b>	Voluntary Service Overseas

## Summary

The central research question that this project sets out to investigate concerns the kind of teacher career models that can lead to improved pupil learning outcomes, teacher motivation, retention and attraction to the profession. In doing so, it will map different teacher career models adopted in a variety of contexts, and consider implementation challenges as well as perceived effects on teachers.

A literature review on teacher motivation and career models was carried out at project inception. It helped to identify research gaps, to develop a typology of different career models and summative appraisal modes, and to refine working hypothesis used in a Theory of Change (ToC) that was developed for this proposal.

Based on motivation theories and existing research evidence, the ToC draws on the understanding that teacher careers impact on teacher motivation and that teacher motivation is key to improve educational quality, teacher retention and attraction. The ToC distinguishes different kinds of career models although it is acknowledged that systems rarely rely on strategies pertaining to one single teacher career model.

It is hypothesised that, not all models will have a positive impact on improving teachers' motivation and that impact will be greatest when a combination of different kinds of interventions positively associated with teacher motivation comes together, and when adequate attention is paid to the context within which they occur. The ToC has thus been developed as a multi-level model to enable an examination of the relationships between theory, context, different teacher career strategies and models, in combination with various approaches to summative appraisal, and documented effects on teacher motivation and broader educational quality outcomes.

In order to further investigate these relationships, to document organisational management of teacher careers and to provide policy options, this project will adopt a qualitative research approach. It will be organised in two stages: In the first stage, a mapping exercise will be carried out. It will seek to collect accurate country descriptions of teacher career structures, related challenges and perceived effects using existing documents and a limited number of semi-structured interviews. In the second stage, more in depth country case-studies will be conducted that will allow the project to better illustrate the different types of teacher career systems in place, as well as the particular enabling factors and constraints that national contexts pose.

# 1. Project presentation

## 1.1 Background

Research shows that successful education systems value teachers. They consistently attract high quality candidates, use training to make them into good teachers, focus on building teacher capacity, and establish career structures that reward good teaching.

Nonetheless, in many countries, teaching careers are structured to reward all teachers the same way. Career progression is indexed only on years of experience and on the qualification of teachers, with limited opportunities for professional development, and fierce competition for few posts with greater responsibility. Oftentimes, this means the best teachers end up leaving the classroom.

While the question of whether differentiating between teachers is desirable or not remains open, taking a closer look at the organisation and management of teacher careers can provide useful insights into how to make the teaching career more appealing. Many governments are looking for ways to diversify the professional courses of teachers, to widen advancement opportunities, and to help ensure that good teachers remain in the teaching profession. Indeed, appropriate policies and management of teachers' careers and work are critical in:

- Supporting quality teaching and learning;
- Improving teacher retention; and
- Addressing numerous causes of teacher scarcity.

This research project will aim to provide policy makers and governments with a variety of policy choices and ideas related to teacher careers, through looking at successful or innovative approaches to the organisation and management of teacher careers in a diverse range of countries

## 1.2 Problem

'Looking ahead, governments need to be thinking strategically. The less attractive the teaching profession becomes, the greater the risk of recruiting a generation of candidates with poor qualifications, less confidence and a lower willingness to innovate. The long-term effects of a poor cadre of teachers are difficult to reverse.'

EFA Global Monitoring Report team,  
Background paper for the Oslo Summit on  
education for Development, 6-7 July 2015, p. 4.

In recent years, a great deal of international attention has been directed toward education, or more particularly, access to education. Millennium Development Goal (MDG) 2 on universal access to primary education and initiatives like Education for All (EFA) have helped millions of children gain access to school. Nonetheless, while access has improved substantially, quality of education has not always garnered the same amount of consideration. In an effort to meet higher enrolment demands, developing countries have expanded teaching workforces, putting their personnel management systems under considerable strain.

As a result, in contexts where education systems have had to cope with an upsurge in enrolments, the teaching profession has undergone significant changes. In many countries, strategies to meet immediate teaching needs have led to the recruitment of non-professional and contract teachers, which has in turn, contributed to a certain 'de-professionalization' of the teaching profession, ultimately deteriorating its appeal. While serious questions related to teacher careers are now starting to be explored, at present, there is little available research on the topic. Further, it is difficult to find detailed documentation about existing teacher career policies at the country-level.

Interestingly enough, questions related to teacher status and professionalization pose a problem in diverse country contexts around the world. In the OECD's 2013 TALIS report, for example, less than a third of all teachers across countries studied reported believing that teaching was a valued profession (OECD, 2014). This is of particular importance because the perception of whether the profession is

valued by society, and among teachers themselves, will impact whether high-quality candidates choose teaching in the first place, and whether systems are able to retain good teachers.

Motivation plays an important role at every part of a teacher's career, from choosing to become a teacher, to deciding what to teach in the classroom. Motivation is also an important dimension of teacher availability and retention, and must be taken into consideration in order to better understand these issues. Thus, motivational theories provide a useful lens from which to view motivation as it relates to teacher careers.

'The perception of teaching as a low status profession can adversely impact recruitment and retention. Improving the status of teaching is not only associated with better motivation and job satisfaction, it can also increase teacher retention and performance as well as student learning.'

EFA Global Monitoring Report team, Background paper for the Oslo Summit on education for Development, 6-7 July 2015, p. 4.

Herzberg's dual-factor theory (Herzberg, 1968), for example, proposes that intrinsic factors or motivators, such as challenging work, recognition, and responsibility give satisfaction, but if absent, do not lead to either dissatisfaction or satisfaction. On the other hand, extrinsic factors, or what Herzberg refers to as 'hygiene factors' (salary, promotion, working conditions, supervision, inspection and accountability), if absent or weak, can give rise to dissatisfaction. 'Hygiene factors' are so named because, just like a hygienic environment does not improve health, its absence can aggravate health. Job satisfaction therefore begins when basic hygiene factors are satisfactory. This theory is important because it argues that basic conditions, many of which relate directly to teacher careers, are necessary in order for teacher motivation to occur. Where basic conditions are unsatisfactory, this will negatively affect a teacher's performance.

Deci and Ryan's Self-Determination Theory (1985) similarly distinguishes between different types of motivation based on the goals and reasons that give rise to an action. They argue that motivation can be classified along a scale, from controlled (where you act only because of an external pressure) to autonomous (where you act out of your own intrinsic desire for a certain outcome). Extrinsic incentives such as monetary bonuses for specific behaviours or outcomes can undermine autonomous motivation when perceived as controlling. This should be avoided due to the positive effects of autonomous motivation on problem solving, persistence and creativity.

In addition, Vroom's 'expectancy theory' (1964) argues that people are influenced by the expected results of their actions. What we do depends on what we expect to gain from it. Employees will be motivated to improve their performance if they believe their efforts will be recognized and rewarded. This theory is interesting because the links between effort and reward may be very questionable. If teachers do not trust that the career system in place offers adequate, and equal opportunities to all teachers, they might feel less inclined to make an effort.

Similarly, according to Adams' theory (1965), motivation is described by the relationship between how fairly an employee perceives they are treated, and how hard they are motivated to work. The underlying hypothesis is that employees strive for a fair balance between their contributions, and the benefits they derive from them. Benefits can include salary, incentives, and other less tangible forms of recognition. If teachers are never visited or evaluated, or are without career perspectives, it is unlikely that they will feel inclined to strive for better teaching. Fair treatment is also important, as workers compare their own efforts with those of co-workers or colleagues in other professions. This theory is relevant to all professions, be it in developed, or developing countries. However, it is particularly important when considering the multiplication of teacher statuses in some sub-Saharan and south-east Asian countries, with varying levels of remuneration, and the ensuing 'dualism' among the teacher work force.

Finally, opportunities for professional development and career perspectives frequently emerge as an important element for teachers in the analysis of their motivation and satisfaction. Research carried out by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), for

example, found that teachers in many countries rated opportunities for professional development among their top concerns, sometimes even above salary or the availability of teacher housing. This was the case in Botswana, where nearly 96 per cent of teachers responded that opportunities for professional development were ‘very important’ (Keitheile & Mokubung, 2005). With regards to career perspectives, a study of three Latin American countries found that a substantial number of teachers aspired to either take a managerial post or another job in the education sector (Tenti Fanfani, 2004). Overall, this research supports the notion that teachers are motivated by career prospects and professional development, and that paying greater attention to these areas may help to improve teacher retention, boost teacher satisfaction, and support quality teaching and learning.

### 1.3 Research objectives

In the light of the above, IIEP research’s programme aims to identify different options that exist in terms of the organization and management of teacher careers and to analyse the implementation challenges as well as perceived effects of different career models on teachers’ motivation, attraction and retention. Given the difficulty of measuring teacher motivation (see next section on limitations), attractiveness of the profession and retention once in post will serve as proxy variables. The research will look at innovative career structures that have been implemented around the world with the aim to provide policy-makers with a range of policy options and to generate knowledge about the management of teacher careers in a diverse range of countries.

The more detailed objectives are to:

- (i) Make available information on the organisation and management of teacher careers by mapping out strategies used in countries that have atypical<sup>1</sup> teacher career schemes in place or innovative aspects of specific interest;
- (ii) Assess implementation challenges and perceived effects on teacher motivation, retention and attraction;
- (iii) Use this information as a basis to provide policy options for policy makers and governments on the organisation and management of teacher careers.

The following **research questions** thus underlie the project:

- What options exist in terms of the organisation and management of teacher careers? How are teacher careers structured and promotion modalities organised?
- What difficulties are countries experiencing with regards to the management of their teacher career scheme? What are the financial implications and implementation challenges of different teacher career models?
- What are the perceived effects of different career models on teacher attraction and retention?

When studying the **effects**, the following three areas in which possible changes can be expected will be of particular interest: (i) attraction of the teaching profession; (ii) ability to retain teachers within the profession, and (iii) on the job motivation of teachers. At the same time, it is recognized that the organisation and management of teacher careers remain highly context-specific, and available research points to the need for a holistic approach to improvement measures and for assessing the costs and other long-term implications.

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<sup>1</sup> What is meant by ‘atypical’ is any career structure which does not follow the common single salary schedule of automatic progression based on years in the job (see section 2.2 for definitions).

#### 1.4 Scope and limitations

The research will seek to have an international outreach. As much as possible, participating countries will reflect the diversity of teacher careers schemes and be selected among countries from different geographical zones and income levels.

With regards to career schemes, the research will focus on countries that can demonstrate innovative systems and policies in place. Priority will be given to countries that have sought to diversify teacher career paths with a strong element of horizontal mobility (as opposed to vertical mobility only).

However, available research suggests this model may be more suited to countries that have strong legislative and regulatory frameworks in place. Particular care must hence be taken to reflect the reality of developing countries. In order to take into account different socio-cultural and socio-economic contexts, the research will include countries from diverse income levels, including low-income countries that have sought to revise their career schemes in innovative ways and how they set out to do this.

This research programme will look at teacher career structures at primary and secondary education levels assuming that the systems do not differ significantly. However, in case teacher career models differ considerably depending on the education level, priority will be given to the examination of career schemes in place for secondary teachers, on the assumption that more innovative policy options might be adopted at this level. Moreover, career structures of teachers in countries in crisis situations will not be included, as this would complicate matters considerably.

Career systems being extremely complex, the project will primarily focus on the organization of the careers of civil servant teachers (where they are a majority), although it will also inquire about possibilities existing for contract and community teachers and seek their opinions. Moreover, it will restrict its scope to the career schemes developed for public school teachers only.

It is also important to underline that the project will look into 'perceived effects' on teacher motivation. Motivation cannot be readily measured. A number of variables can be associated with motivation, making it simply too complex to draw direct links. As Bennell and Akyeamong rightly point out, "measuring the determinants and consequences of work motivation is complex because these psychological processes are not directly observable and there are numerous organizational and environmental obstacles that can affect goal attainment" (Bennell 2007, p.3). As a result, there have been few *quantitative* studies on teacher motivation (or satisfaction)<sup>23</sup> (Bennell 2007; Michaelowa 2002).

This project has been designed from a qualitative paradigm. It will not seek to measure teacher motivation but it will draw inferences based on the attraction of the profession, retention of teachers once in post and how fairly teachers perceive to be treated.

The major limitation of this project lies in the fact that it is difficult to compare systems across contexts, with different economic and cultural factors at play. Likewise, problems encountered in one

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<sup>2</sup> Teacher motivation is often related to research into job satisfaction. According to Scholl, these are "related but distinct behavioural forces with different determinants and different outcomes" (cited in Müller K. 2009, p. 580). Motivation is 'future directed' towards the achievement of goals, whereas job satisfaction is defined as "the extent to which expectations are met resulting in positive feelings" (Scholl cited in Müller K. 2009, p. 580). While recognizing this difference, a number of research reports (Bennell 2007; Michaelowa 2002) make the choice to refer to both motivation and satisfaction, arguing that satisfaction helps to account for motivation, and that satisfaction is more easily interpreted by respondents because it relates to recent events; whereas motivation is future-related and remains a broad concept open to interpretation.

<sup>3</sup> While the quantitative approach is more likely to be put forward to influence policy-makers (Blackmore 2005, p. 100), difficulties in measurement may in part explain why few international agencies have ventured into assessing teacher motivation.

setting may not be a concern in the other. The impact of poverty and community values will also have an influence on what can motivate teachers and on management practices or even enforcement disposition of a specific model promotion/career scheme.

Moreover, the ToC that was developed to help our reflection on the project assumes that where salaries are sufficient to meet teachers' basic needs, specific models of teacher career organisation can play a role in raising the appeal of the profession. However, in order to discuss teacher retention and attraction, it is important to take into consideration the level of starting salary and mid-career salaries of teachers and how they compare to other professions. It is likely that below a certain threshold, it will be difficult to ensure a minimum of investment by teachers in their work.

Further, it is understood that it may be challenging to separate external factors that may affect teacher motivation from those that are linked to career-related concerns. Similarly, it may be challenging to make a connection between the management of a teacher's career, the teacher's level of satisfaction, and ultimately, quality of education, which in itself, can be difficult to gauge. Another limitation is the level of combinations between different career models and evaluation modes which makes it difficult to assess the effects of a particular teacher career model or evaluation mode.

As a result, it is important to stress that this research project will not aim to generalize or to identify which systems are the most effective. Instead, the project will aim to make policy options and information on the different systems available, which will then need to be further conceptualised.

A final limitation may be the fact that biases in the appreciation of teachers and their profession may be introduced into the study because the main participants will be teachers or administrators still in post. In some cases, teachers or administrators may feel that expressing the need for greater opportunities and better remuneration for teachers could help their own personal advancement. This may lead to a more subjective approach to the analysis, but can be expected to also generate a better informed perspective on the organisation and management of teacher careers.

## 2. Research gaps and working hypothesis

### 2.1 Introduction

At project inception, an exploratory study on teacher motivation and career models was commissioned by IIEP and delivered in 2015. This literature review sought to examine the available research in the area of the organization of teacher careers. It aimed to consider what was known about the impact of different forms of teacher career models and summative appraisal modes. The latter cannot be overlooked when analysing career structures as evaluation is generally used to determine career advancement. It also reviewed the psychological research on motivation, and examined the models of teacher career structures used in different countries.

The literature review hence helped to identify research gaps, to establish a typology of different careers schemes and summative appraisal modes and to refine our working hypothesis used in the theory of Change (ToC) developed for the purpose of this research proposal.

The ToC illustrates our working hypothesis regarding how different teacher career models have diverging effects on teacher motivation. Initial draft ideas for this ToC emerged through engagement with our reading of motivation theories and initial key studies reviewed. It was further consolidated with the findings and classification developed in the literature review.

In the sections below, the key terms related to teacher careers will first be defined. Second, key research gaps identified in the literature review will be discussed in relation to IIEP's research work. Finally, the ToC will be presented underlying key hypothesis regarding the effects of diverse contextual aspects as well as concrete career policy options on teachers' motivation.

### 2.2 Definitions

The diversity of the vocabulary used around the theme of teacher careers in the literature crystallizes the complexity of developing a typology of career models and the relatively new development of teacher careers as a research theme. The following definitions are proposed here to facilitate the reading of this project document and of the ensuing research work produced as part of this project. They have been deduced from the literature review that was prepared to guide the initial stage of this research project.

It should be underlined that different organizations use different terminology. Sometimes the same terms are used but the meaning attached to them can differ. It is thus very important that definitions are agreed upon upfront. For more information on the various terms used, a table is presented in annex 1 comparing terms used in relation to teacher careers in this project with those used by a major organization that has published work on teacher careers, i.e. the World Bank<sup>4</sup>, and justifications for adopting our terminology.

In the sections below, the terms used in relation to career models and evaluation modes reflect the typology developed in the literature review and used for the ToC.

#### Key concepts:

**Career** - A career is defined in the Oxford Dictionary as 'an occupation undertaken for a significant period of a person's life and with opportunities for progress' (Oxford Dictionaries, 2015). It differs from a 'job', which is defined as 'a paid position of regular employment' in that a career includes

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<sup>4</sup> See Bruns, B.; Luque, J. 2014. *Great Teachers: How to Raise Student Learning in Latin America and the Caribbean*. World Bank Publications.

opportunities for progress, whereas a job does not necessarily. The administration of teacher careers therefore encompasses policies concerning how people progress from being a new teacher to being an experienced teacher. This includes progression in the areas of pay, skills, qualifications and responsibilities, and how these things relate to one another.

**Teacher standards** - descriptions of what teachers are expected to be able to do or know at different stages of their career.

**Horizontal mobility** – teachers are promoted to more advanced teacher levels. It is based on meeting certain standards and allows the teacher to remain teaching in the classroom through different steps of promotion. This is sometimes called ‘horizontal promotion’ (Vegas, 2005), and as this phrase suggests the teacher is moving sideways rather than upwards.

**Vertical mobility** – it is a career structure where teachers are promoted to the administrative or leadership positions and teaching stops being central to their job.

**Promotion** - teachers are promoted to new roles and titles based on their evaluation, with a salary rise attached.

**Motivation and satisfaction** - one is motivated to take action that leads to the satisfaction of a need or desire. Motivation is a desire or willingness to have something, satisfaction is how you feel once you have it.

**Intrinsic motivation** – refers to acting because the action is inherently interesting or enjoyable. It is associated with creativity, problem solving, cognitive flexibility and persistence.

**Extrinsic motivation** – refers to acting because the action leads to a separate desirable outcome, like a reward. It is associated with initial increase in frequency of action, but leads to decrease in intrinsic motivation.

#### Career models:

**Single salary schedule** - teachers’ pay increases yearly, independently of teaching quality. The only other factors taken into account in pay are additional qualifications, and promotions to administrative positions.

**Single salary schedule contingent upon appraisal** - here salary rises at key points (every three years for example) are dependent on passing an appraisal. Sometimes the standards they are appraised against get more challenging, the longer they have been in the profession.

**‘Performance related pay’** - refers to programmes which award teachers one-off financial rewards for desired performance, either as measured by student grades in standardized tests, or by broader teacher evaluation.

**Career ladder** - here teachers do not just go up the pay scale by passing an appraisal, but take on a new status or role such as ‘lead teacher’ having met the required standards to do so, and their pay reflects their new position.

#### Bonuses:

**‘Payment by results’ (PBR)** - is used to describe programmes which base bonuses on student results only.

#### Evaluation modes:

**Criterion referenced** - teachers’ skills are judged against criteria or standards. Any teachers who meet the set of standards required for a promotion receive the promotion, irrespective of the performance of their peers.

**Norm referenced** - teachers are compared with each other. Only the top proportion of teachers gets a reward or promotion. This could be based on who has the most points, or using other criteria.

**Cumulative judgment** - allocation of a certain weighting or point score to different elements of the appraisal process, for example a lesson observation and a test, and these are added up to reach a final score.

**Holistic judgment** – teachers’ overall outcome is based on teacher standards and whether or not they have shown the necessary skills/competencies required. However, there is no formal allocation of points or weighting to certain components because evaluation is a result of a more holistic consideration often made by one agent (in many cases the principal but not exclusively). Evidence for the meeting of the competencies is still drawn from different components of the appraisal process.

**Internal evaluation** – ‘Self-evaluation of organizations during which one or more persons assess the performance of an entity for whose activities they are fully or partially responsible.’<sup>5</sup>

**External evaluation** – ‘An evaluation carried out by evaluators external to the entity evaluated.’<sup>6</sup>

### 2.3 Findings and future research questions emerging from the literature review

After having reviewed key terms related to teacher careers, selected research gaps discussed in the literature review are presented below to the extent that they are relevant for this research project. Indeed, a wide range of teacher career structures reviewed in the literature review not only gave first insights on the possible effects of different career models and evaluation modes but also helped to identify areas that would benefit from future research.

1. While the most common way to organise teacher careers in developing and developed countries is the single salary schedule, different career models are being implemented around the globe. Having reviewed a wide range of atypical career structures, the literature review identified three other main models of teacher career organisation: performance related pay; single salary schedule contingent on an appraisal; and career ladder. There are of course variations within these models, such as who evaluates the teachers, what the standards are, whether professional development is mandatory and whether new positions come with additional responsibilities. Moreover, rarely do these career models exist in isolation; very often they are combined and used together. A variety of options and possible combinations regarding teacher career models as well as relatively scarce research that documents them justify a need to further explore **‘What are the different career models and their combinations used in various countries?’**
2. The literature review underlined widely discussed issues related to the single salary schedule model. The lack of correlation between the factors used for promotion (certificates and experience) and teacher effectiveness, the demotivating effect on the colleagues of less dedicated teachers who are automatically promoted and a lack of opportunities for career progression without leaving the classroom are just a couple of those that were identified. However, research evidence on the other three career models, maybe only with the exception for the bonus pay, is quite limited to the extent that no firm conclusions can be drawn (see Annex 2). Even the literature analysing various bonus pay systems is highly divided. Certain experts point out successful policies that seem to have improved student learning results on the short term and praise practical aspects that make bonus pay policies easier to implement, whereas others claim that bonus pay systems are largely ineffective, undermine intrinsic

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5 TESE (Thesaurus for Education Systems in Europe), Eurydice, 2009.

[http://eacea.ec.europa.eu/education/eurydice/documents/tese/pdf/teseen\\_005\\_alphabetic.pdf](http://eacea.ec.europa.eu/education/eurydice/documents/tese/pdf/teseen_005_alphabetic.pdf)

6 TESE (Thesaurus for Education Systems in Europe), Eurydice, 2009.

[http://eacea.ec.europa.eu/education/eurydice/documents/tese/pdf/teseen\\_005\\_alphabetic.pdf](http://eacea.ec.europa.eu/education/eurydice/documents/tese/pdf/teseen_005_alphabetic.pdf)

motivation and in developed countries, have been associated with teaching to the test, teachers leaving 'difficult' schools, and in some cases, cheating.

The career ladder appear as a more promising model, in that it allows the possibility of linking pay to performance indirectly, and offering teachers a pathway for professional growth. Consequently, it is believed to increase autonomous motivation of teachers. However, there are significant variations within the career ladder structure used by different countries, and different features are likely to result in different outcomes. What is more, few career ladder programmes have been quantitatively evaluated and more research evidence is needed.

In terms of salary progression based on appraisal, research points to different possible effects depending on specific policy designs. Moreover, even though an increase in salary is more likely to be seen as affirming competence, rather than controlling behavior it still introduces a direct link between appraisal and pay which might to a certain extent undermine autonomous motivation. All in all, conclusive evidence on effects of diverse career models is still missing.

The following questions could therefore benefit from further analysis: **How does the introduction of different types of career models affect teachers' motivation? How does the introduction of a career model affect the number and quality of applicants to the teaching profession and their retention further in the career? Do they feel more or less motivated? Is their motivation of the 'autonomous' or 'controlled' type? How does this affect their teaching behaviours? Do teachers experience increased competition with one another under different career models?**

3. The findings of the literature review emphasized the importance of the choice of different evaluation modes. Evaluation features appear as a transversal issue that can strongly influence the outcomes of any career model. Some conclusions around possible effects of diverse evaluation modes can already be drawn. For example, holistic (standards based), criterion referenced evaluation for teachers seems to be more effective than cumulative, norm referenced evaluation, at least at the lower levels of the career ladder. However, criterion referenced evaluation has implications for finances because it is not known how many people would receive a salary increase, promotion or a bonus pay. On the other hand, norm referenced evaluation is believed to lead to fierce competition among teachers. Cumulative evaluation might encourage teachers to selectively choose areas for improvement while neglecting others whereas holistic evaluation avoids this issue but is considered to be less impartial. The literature review emphasizes the importance of correctly selecting adequate standards that teachers will be appraised against at different career stages. It also points out the importance of the quality, training and impartiality of the evaluation agent who should be carefully selected.

In order to further investigate the potential effects of different evaluation modes, agents as well as standards the following questions would deserve to be further explored: **What do teachers think of the process of evaluation in their country? Do they think the standards are pitched at the right level? Do teachers experience increased competition with one another in career structures which use norm referenced evaluation? What are the possible effects of different evaluation modes, standards and evaluation agents on teachers' motivation?**

4. Finally, the literature review analysed certain implementation aspects that must be carefully considered if a career structure reform is to produce a positive change in teachers' motivation. It has been highlighted that it is essential to ensure the involvement of teachers and their representatives in the initial design and development of the programme. Teachers need to see a new career model as something fair and worthwhile. Good communication and timely information is another key aspect that needs to be considered for a successful policy implementation. Implementing a teacher career structure is a substantial undertaking. It thus requires careful planning and design as well as commitment from the different stakeholders

involved. Financial aspects should also be carefully considered as they are a primary source of potential challenges. Moreover, as in many countries teachers are civil servants, their pay is based on pay scales which are common across the civil service. This could add an element of challenge in implementing a new career structure, as other civil service professionals might expect to follow suit.

Implementation of a policy is no less important than its design. Even though certain possible challenges have already been identified, research on this aspect is still very limited. In order to expand and enrich a list of considerations that has already been presented, future research should further explore **‘What are the implementation challenges that need to be considered when implementing a teacher career policy reform?’**

The above listed areas that would benefit from future research guided the formulation of the IIEP research questions and objectives.

## 2.4 Theory of change

The ToC presented below aims to propose key hypothesis regarding how different teacher career models can have diverging effects on teacher motivation. It should be stressed that the ToC diagram (see diagram overleaf) should not be read as an indication of what works. It presents an indication, based on the literature reviewed, of what there is thus far in terms of evidence.

1. This ToC draws on the understanding that teachers are affected by various elements related to job satisfaction and motivation, which can be related to teacher careers such as *development opportunities, status, remuneration, and recognition*. However, it is also hypothesised that not all career models will have a positive impact on improving teachers' motivation.
2. A number of key assumptions underlie the ToC concerning aspects of the context in which interventions take place. First, the ToC is developed on the assumption that where salaries are sufficient to meet teachers' basic needs, specific models of teacher career organisation can play a role in improving the motivation of teachers in their daily work, and in raising the appeal of the profession.<sup>7</sup> Other assumptions include a clear set of *rules and regulatory frameworks, trust in the education system, and sufficient financial and human resources* to implement the chosen career system. These contextual elements may significantly influence the choice of teacher career models and their implementation modes, and also the extent to which they can contribute to motivate teachers and thus impact on education quality and teacher attraction/retention. Moreover, the state's *capacity* to implement policy, translate commitments into viable programmes and engage the widest range of stakeholders in *inclusive dialogue* about these processes can be critical for the successful development and implementation of teacher career models. The impact of particular teacher career models will also be affected by issues of *diversity* within the teaching profession, i.e. where there are more than one category of teachers, all not being managed under the same set of rules. This may be the case in countries where there is a large proportion of non-civil servant teachers (contract and community teachers).

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<sup>7</sup> It is not clear from the research whether teachers can be autonomously motivated by having needs for competence, autonomy and relatedness fulfilled, without first having their basic living needs met. If autonomous motivation is achievable despite poor living conditions, states with financial constraints could take steps towards better motivating teachers without having to invest heavily in salaries. If not, no change to career structure will help the situation until salaries have risen to meet basic needs. This is an area that would benefit from future research.

3. The psychology of motivation suggests that it is important for teachers' job satisfaction and quality of teaching (problem solving and creativity) that they are as far as possible *autonomously motivated* rather than motivated by extrinsic incentives. This would suggest that careers for teachers should be structured in a way that allows teachers to work towards *competence*, to have *responsibility* and *autonomy* over the direction of their careers, and to work in an environment of *relatedness* where they work with and are supported by their colleagues. The latter for example would not be supported by a career structure that put teachers in direct competition with one another, but by one in which teachers shared resources and where mentoring was the norm. The research by Deci, Koestner and Ryan (1999) also suggests that introducing extrinsic incentives such as performance related pay might undermine the autonomous motivation which teachers already have.

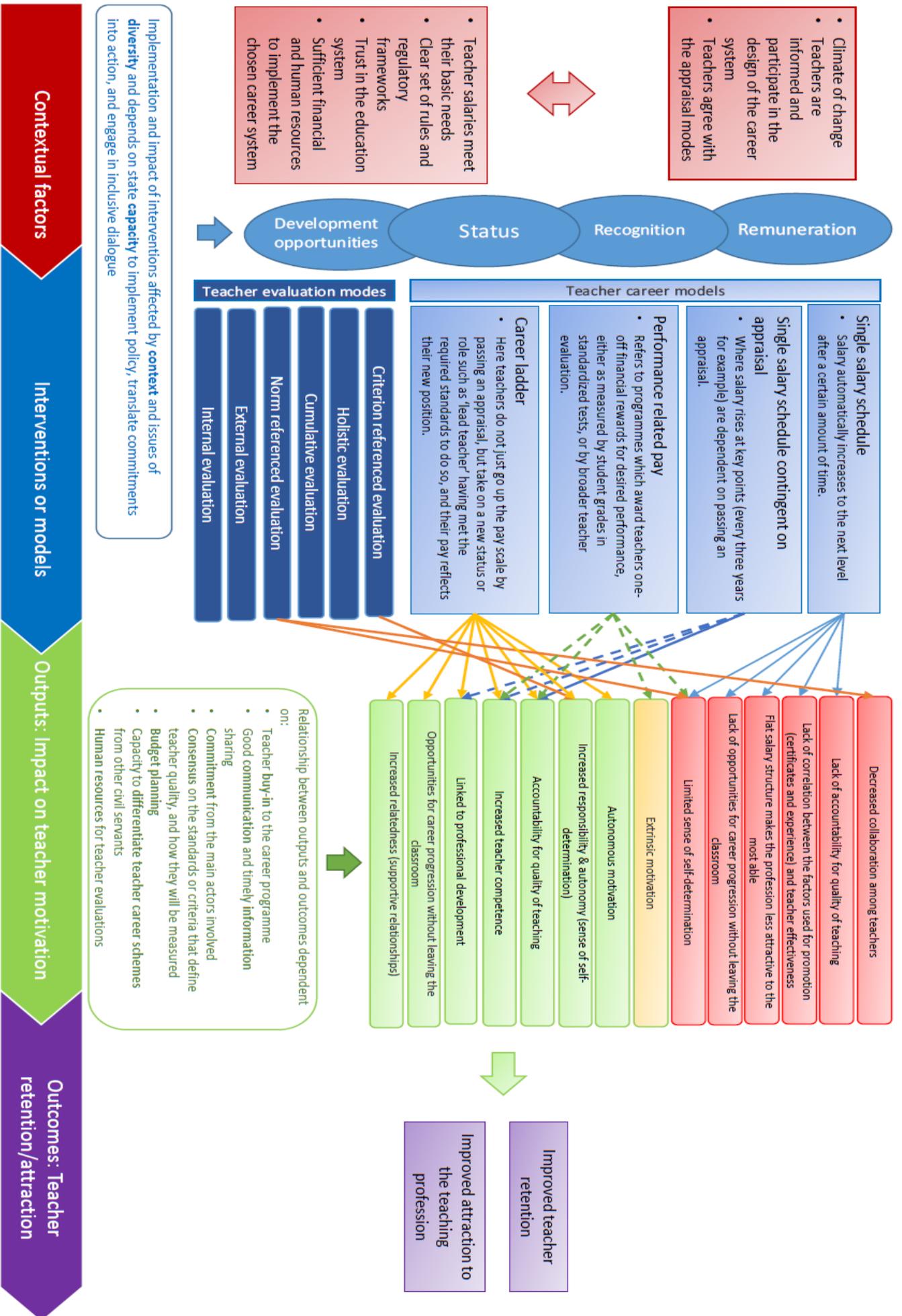
However, research into individual differences (and common sense) suggests that some teachers will never be autonomously motivated, particularly where teaching is a career of last resort. Consequently, a well-designed teacher career structure would encourage autonomous motivation where possible, but incorporate extrinsic incentives in such a way that they motivated the remaining 'control orientated' teachers without undermining the autonomous motivation of everyone else. A balance needs to be struck between encouraging autonomous motivation in teachers, and holding them accountable for the quality of their teaching.

4. Career models cannot be looked at without paying attention to the chosen modes of teacher appraisal as they impact on career advancement. For this reason, summative (not formative) appraisal modes are presented in the ToC. Similarly to career models, summative appraisal modes may be positively or negatively associated with teacher motivation (see section 2.3, item 3).
5. The ToC proposes a typology that distinguishes between different kinds of teacher career models and teacher summative appraisal modes (defined in the next section). Career models include: i) single salary schedule; ii) single salary schedule contingent upon appraisal; iii) performance related pay; and iv) career ladder. Summative teacher appraisal modes reviewed include: holistic evaluation versus cumulative evaluation; criterion-referenced versus norm-referenced evaluation; and external versus internal evaluation. Appraisal modes only apply to the latter three teacher career models (there is no summative teacher appraisal in the single salary schedule).
6. It should be underlined that these models (except single salary schedule) and modes can be mixed and matched under a variety of combinations, making impact evaluation of different strategies difficult to carry out. In some cases, a particular model may display aspects of more than one summative appraisal modes. In other cases a particular career scheme may bring together a combination of different sorts of models. It is hypothesised that impact will be greatest when different interventions (teacher career models and appraisal modes) that are positively associated with desired outputs, in theory and in research evidence, are combined and when adequate attention is paid to the context within which they occur, particularly in relation to the financial and human capital in various contexts.
7. The body of evidence linking different sorts of models to improvements in teachers' motivation, attraction, retention and education quality is relatively scarce. The ToC sets out to indicate a potential link between the type of intervention and the different outputs associated with teacher career models and appraisal modes. However, the number of studies available is too few to determine causal links. This does not necessarily mean that the type of intervention in question does not impact on teacher motivation, but highlights that there has been little research conducted which shows this. The ToC provides indications of links between interventions and outputs based on the research evidence reviewed but further research is required to confirm these. Where a dotted arrow is used in the graph, this indicates that

research suggests that there is a link but it may be controversial or it may depend from one context to another. Where a thick arrow is used, this means that there seems to be strong evidence to support the association of interventions to outputs. Outputs indicated in green have a positive effect on teacher motivation, those in red have a negative association with teacher motivation, and one output in orange is controversial. To make the graph more readily readable, each career model has a designated colour of arrow, as do the teacher appraisal modes (only one colour for all).

8. A limitation of the model is that individuals have their own agency. What motivates individual teachers varies; between countries, within countries and between different types of teachers. In their Self-Determination Theory, Deci and Ryan (1985) identify that even in the same situation, people have tendencies to be motivated in different ways. They describe 'autonomy oriented' people, who are more likely to see themselves as being in control of their situation, and therefore more likely to be autonomously motivated, and contrast these with 'control oriented people', who tend to experience social contexts as controlling and therefore be more driven by 'controlled' motivation. Motivation therefore depends on both the environment (and the extent to which it supports competence, autonomy and relatedness) and individual traits.
9. Diverse aspects of context have a bearing on how interventions are implemented and experienced by different groups of teachers, and on the outputs and outcomes of models. This is signalled in the diagram by the large block arrows at the bottom, which highlight some foundational assumptions.

Diagram 1: Theory of Change (see section 2.4 for explanations)



### 3. Research design

In order to address the research questions and objectives IIEP decided to opt for a **qualitative approach** so as to provide in-depth examination of career models used in different settings. The overall purpose is not to generate quantitative evidence on what works and what does not work, but to provide policy options qualitatively examining strengths and weaknesses of different teacher career structures in terms of their perceived effects on teacher motivation, retention and attraction as well as management implications and possible implementation challenges.

In view of the diversity of career schemes adopted in different countries, it was considered necessary to split the research into **two stages**. The first stage of the research will focus on mapping different innovative career models that exist around the world trying to identify their main implementation challenges and perceived effects. The second stage of this research will look at three country case studies in order to go further into the analysis of actors and aspects that could not be covered during the first stage. The two stages of the research and more detailed methodological choices are presented below.

In both phases, the research will be based both in an **exploratory and descriptive design**. The design will be exploratory because the research aims to explore a variety of existing teacher management systems within different country contexts. It will be descriptive (and not explanatory) because it will aim to document and provide narrative accounts of existing policies, structures, and processes so as to learn from them, but without explaining them from a theory-based design and related explanatory variables for empirical study.

The research will use a combined approach of both **primary and secondary information sources**. Primary data will be generated from semi-structured interviews and focus group discussions with stakeholders. The multi-actor research design will allow for comparison of the different actors' perspectives on the organisation and management of teacher careers, including the challenges that countries are experiencing. It will also allow for triangulation of perspectives and interpretations by actor group.

Secondary data sources will be generated from a content analysis of documents available at the country level (reports from education ministries, teachers unions etc.) to analyse how teacher careers are organised and managed within different systems. The combined use of primary and secondary information will again allow for a triangulation of information sources and can thus be expected to increase the overall consistency of the analysis in terms of effects and conditioning factors.

## Annex 1: Comparison of definition of terms related to teacher careers

The diversity of the vocabulary used around the theme of teacher careers in the literature often creates confusion. The present document aims to compare the main terms that have been used in the literature review commissioned by IIEP and the World Bank publication (2014) “Great Teachers: How to Raise Student Learning in Latin America and the Caribbean.” Firstly, a summary table is provided to compare the main terms related to teacher career models. Secondly, a justification of terms that were chosen by IIEP in its research on teacher careers is presented.

IIEP definition <sup>8</sup>	World Bank definition <sup>9</sup>
<p><b>Promotion</b> - teachers are promoted to new roles and titles based on their evaluation, with a salary rise attached.</p>	<p>The term <b>promotion</b> is used not only to refer to teachers that receive new roles and titles but also to refer to movement from one salary grade or level to another when teacher evaluation is used (‘grade promotion’) or even to automatic promotion in seniority-based career path.</p>
<p><b>Single salary schedule</b> - Teachers’ pay increases yearly, independently of appraisal. The only other factors taken into account in pay are additional qualifications, and promotions to administrative positions.</p>	<p>Different terms are used for this type of a career model: <b>seniority-based career path; a seniority-based single-salary schedule; seniority-based promotion system; across-the-board salary increase</b>. However, they all refer to promotion across the career path driven almost entirely by seniority, delinked from performance.</p>
<p><b>Single salary schedule contingent upon appraisal (salary progression based on appraisal)</b> - Here salary rises at key points (every three years for example) are dependent on passing an appraisal. In this approach, either an appraisal has to be passed when that time comes, or the regularity with which a teacher can move up a level depends on their appraisal outcomes. Sometimes the standards teachers are appraised against get more challenging the longer they have been in the profession.</p>	<p><b>Career path reforms</b>, sometimes called “<b>competency-based promotion and pay</b>” reforms, increase the financial incentives for high-quality teachers by making permanent promotions contingent on performance rather than seniority and expand salary differentials across different grades.</p> <p>The term ‘Career path reforms’ or ‘competency-based promotion and pay’ is used here to talk about ‘salary progression based on appraisal’. Even though the word promotion is used in this definition, here it is referred to ‘grade promotion’ (promotion to a different salary level). However, the question of additional responsibilities that might come with the ‘grade promotion’ is not clearly addressed in the document.</p>

<sup>8</sup> Crehan, Lucy. 2014. Literature review on teacher careers (draft). Commissioned by IIEP.

<sup>9</sup> Bruns, B.; Luque, J. 2014. Great Teachers: How to Raise Student Learning in Latin America and the Caribbean. World Bank Publications.

<p><b>'Performance related pay' (bonuses)</b> - refers to programmes which award teachers one-off financial rewards for desired performance, either as measured by student grades in standardized tests, or by broader teacher evaluation.</p>	<p><b>Bonus pay or 'pay for performance'</b> - in education it is usually structured as a one-time annual reward for teachers based on a measure of their relative performance or performance against a target. The reward can be for input measures of performance, such as teacher attendance, or outcome measures, such as student results, other student or non-student outcomes. Bonuses can be awarded to individual teachers or to groups of teachers most typically to a whole school.</p> <p>In this case, there are no major differences with the IIEP definition.</p>
<p><b>Career ladder</b> - Here teachers do not just go up the pay scale by passing an appraisal, but take on a new status or role such as 'lead teacher' having met the required standards to do so, and their pay reflects their new position.</p>	<p><b>Career ladder</b><sup>10</sup> promotes extraordinary teachers to the role of master teachers or specialists in curriculum or research. Such promotions can also have significant financial rewards. There are systems in place to evaluate individual teachers' potential and performance and promote the best teachers into special status as master teachers or leaders in specific curriculum areas.</p> <p>In this case, there are no major differences with the IIEP definition.</p>
<p><b>Payment by results (PBR)</b> - is used to describe programmes which base bonuses on student results only.</p>	<p><b>Bonuses based on student learning results</b> – also refers to programmes that base bonuses on student learning results.</p>

### Justification of chosen terms

IIEP in its research on teacher careers has decided to use terms that were selected in the literature review. The terms that IIEP chooses for its research work aim to clearly separate the four career models identified<sup>11</sup>. To avoid any confusion IIEP clearly separates two terms: 1. Single salary schedule contingent upon appraisal (salary progression based on appraisal) - when no additional responsibilities come along after successful evaluation but teachers move to a next grade or level of a pay scale and 2. Career ladder - when teachers take on a new status or role such as 'lead teacher'. The word promotion is used in IIEP research only when teachers are tasked with additional responsibilities.

### For information on the typology of career models provided in the Word Bank document

The World Bank document identifies three broad classes of incentives 'that shape the relative attractiveness and status of teaching: (1) professional rewards, (2) accountability pressures, and (3) financial rewards.

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<sup>10</sup> Sometimes this term was also used when talking about 'career path reforms'.

<sup>11</sup> Single salary schedule; single salary schedule contingent upon appraisal; performance related pay; career ladder.

1. The document identifies four sources of professional rewards (a) incentives for mastery and professional growth and (b) teacher recognition and prestige (c) intrinsic motivation (d) well-equipped, congenial working conditions. According to the document career ladder model with teachers getting promoted to the role of master teachers or specialists in curriculum or research belongs to category b of professional rewards - teacher recognition and prestige.
2. Accountability pressure can come from the (a) job stability aspects, (b) managerial oversight and (c) client feedback.
3. Financial rewards can be differentiated in three policy instruments: (a) salary differentials<sup>12</sup>, (b) bonus pay<sup>13</sup>, and (c) pensions and other benefits.

3. (a) Salary differentials<sup>14</sup>: The document identifies three broad categories of career path reforms depending upon whether the performance measures used to determine promotion are focused on (a) content mastery and pedagogical skills measured on an examination; (b) comprehensive measures of teachers' skill (for example, including peer feedback and classroom observations); or (c) comprehensive measures that include student learning results.

3. (b) The document also classifies bonus pay systems<sup>15</sup>: a) Bonuses based on student learning results b) Bonuses based on student learning results plus other student outcomes (e.g. enrolment ratios, dropout rates, on-time grade promotion etc.) c) Bonuses based on student learning results plus other (nonstudent) performance measures (e.g. school initiatives, labour conditions, etc.) d) Bonuses based on inputs such as attendance.

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<sup>12</sup> Corresponding to IIEP's single salary schedule contingent upon appraisal.

<sup>13</sup> Corresponding to IIEP's performance related pay.

<sup>14</sup> Corresponding to IIEP's single salary schedule contingent upon appraisal.

<sup>15</sup> Corresponding to IIEP's performance related pay.

## Annex 2: Advantages and disadvantages of different teacher career models and evaluation modes

The three tables below summarize the main advantages and disadvantages of different teacher career models and evaluation modes in terms of teachers' motivation, policy implementation challenges and perceived effects of these policies. Tables indicate positive and negative aspects that were considered in the literature listed below, as well as in other key documents identified (see below). However, it is essential to emphasize that as the outcomes of career models or evaluation modes are very context-sensitive they can differ substantially from one country to another. Moreover, even slight modifications of certain policy elements might have influence on policy outcomes.

Tables were compiled using three key documents:

- Crehan, Lucy. 2014. *Literature review on teacher careers* (draft). Commissioned by IIEP.
- Bruns, B.; Luque, J. 2014. *Great Teachers: How to Raise Student Learning in Latin America and the Caribbean*. World Bank Publications.
- OECD (Organisation for Economic Co-operation and Development). 2009. *Evaluating and Rewarding the Quality of Teachers: International Practices*. Paris: OECD.

Table 1 compares four main teacher career models: a) single salary schedule; b) single salary schedule contingent on appraisal; c) performance related pay (bonus pay); d) career ladder.

Table 2 analyzes different evaluation modes: a) holistic; b) cumulative; c) norm referenced; d) criterion referenced; e) external; f) internal evaluation.

Finally, table 3 looks more attentively at the advantages and disadvantages of bonus pay that is based on students' learning outcomes.

Career model	Advantages	Disadvantages
SINGLE SALARY SCHEDULE	<b>MOTIVATION</b>	
	<ul style="list-style-type: none"> <li>- It appeals to teachers as a fair way to compensate everyone.</li> </ul>	<ul style="list-style-type: none"> <li>- Demotivating effect on the colleagues of less dedicated teachers who are automatically promoted</li> <li>- Flat salary structure makes the profession less attractive to the most able.</li> <li>- Lack of opportunities for career progression without leaving the classroom</li> <li>- Limited sense of self-determination and control over their own careers</li> <li>- The lack of recognition</li> <li>- Improving teaching quality or working harder does not influence teachers' career outcomes or pay which is highly demotivating.</li> </ul>

		<ul style="list-style-type: none"> <li>- The lack of rewards for the best teachers and the lack of sanctions for the worst teachers might result in decreased motivation.</li> <li>- Teachers can predict the highest possible salary they can earn by looking at the salary schedule. If they do not believe that salary is high enough, they may choose to move into educational administration where salaries are oftentimes more appealing or leave the profession altogether.</li> </ul>
	<b>IMPLEMENTATION</b>	
	<ul style="list-style-type: none"> <li>- Relatively easy to manage and implement: does not require extra human resources and budget provisions can be planned.</li> </ul>	
	<b>PERCEIVED EFFECTS</b>	
	<p>It is often a politically popular policy.</p>	<ul style="list-style-type: none"> <li>- Lack of correlation between the factors used for promotion (certificates and experience) and teacher effectiveness</li> <li>- Lack of accountability for quality of teaching</li> <li>- With a salary schedule that offers small increments for each year of service, teachers see a greater opportunity cost with each passing year. Moreover, there are opportunity costs for high-ability teachers who could find other jobs.</li> <li>- Single salary structure creates no incentives to teach in schools that serve disadvantaged students, schools in remote or dangerous locations, or schools in low wealth districts with lower levels of resources.</li> </ul>

<b>SINGLE SALARY SCHEDULE CONTINGENT ON APPRAISAL</b>	<b>MOTIVATION</b>	
	<ul style="list-style-type: none"> <li>- Offering an increase in salary is more likely to be seen as affirming competence, rather than controlling behavior, which means it is less likely to undermine autonomous motivation.</li> </ul>	<ul style="list-style-type: none"> <li>- Salary increases as the result of appraisal still introduce a direct link between appraisal and pay which might to a certain extent undermine autonomous motivation.</li> </ul>

	<ul style="list-style-type: none"> <li>- This model signals a long-term trajectory of potential performance rewards. This can work as a strong incentive power in attracting more talented individuals to the teaching profession.</li> </ul>	
	<b>IMPLEMENTATION</b>	
	<ul style="list-style-type: none"> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>- Designing an effective evaluation system might be challenging (see evaluation modes below). For the successful implementation of a new policy, whoever is responsible for teacher appraisals must be trained in doing so, and the quality of this training is very important.</li> <li>- The steepness of the salary trajectory will affect the strength of the incentive on teacher behavior; however, there is a complete lack of evidence on how steeper salary scales affect student learning and school system performance over time.</li> <li>- These reforms under most models have long-term fiscal implications because they increase teachers' base pay and pensions.</li> <li>- Disbanding or substantially adapting this model can be politically and administratively complicated.</li> <li>- Reforms that introduce this model are administratively complex, usually contested by teacher unions.</li> </ul>
	<b>PERCEIVED EFFECTS</b>	
<ul style="list-style-type: none"> <li>- This system may be less divisive than structures which give bonuses to some staff but not others.</li> <li>- It introduces more accountability elements.</li> <li>- This system prevents inefficient teachers from progressing automatically through the salary scale just like their more efficient peers.</li> <li>- This model directly tackles promotion delinked from</li> </ul>		

	<p>performance and flat lifetime salary trajectory. Consequently, it is the most straightforward policy instrument for attracting highly qualified candidates into teacher profession.</p> <ul style="list-style-type: none"> <li>- This model also creates incentives for individual teachers, which may have stronger impacts on teacher performance than group incentives that might suffer from free-rider issue.</li> <li>- Although there is no direct research on this, by analogy with other occupations it is likely that this model has more powerful selection effects than bonus pay towards who goes into teacher profession. It signals a permanent and cumulative structure of rewards for high performance, has attractive pension implications, and is reaped by individual teachers.</li> </ul>	
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	<b>MOTIVATION</b>	
<b>PERFORMANCE RELATED PAY (BONUS PAY)<sup>16</sup></b>	<ul style="list-style-type: none"> <li>- Bonus pay maintains the annual “carrot” of an incentive.</li> <li>- Group bonuses (that reward all staff members in a school for the school’s average results) can create positive incentives for a team work.</li> </ul>	<ul style="list-style-type: none"> <li>- As extrinsic incentives monetary bonuses based on specific outcomes can undermine autonomous motivation.<sup>17</sup></li> <li>- Perceived control as a demotivating element</li> <li>- Individual bonus pay systems encourage competition between teachers, which undermines cooperation among them if bonuses are only for ‘top-ranked’ teachers.<sup>18</sup></li> <li>- Group based bonuses might create a free-rider’s issue.</li> <li>-</li> </ul>
	<b>IMPLEMENTATION</b>	
	<ul style="list-style-type: none"> <li>- Politically and technically easier to implement than salary progression based on appraisal reforms and do</li> </ul>	<ul style="list-style-type: none"> <li>- Designing an effective evaluation system might be challenging (see evaluation modes below). For the</li> </ul>

<sup>16</sup> Here performance related pay is considered as programmes which award teachers one-off financial rewards for desired performance measured by broader teacher evaluation. Please consult a separate section on ‘Payment by results’ to see the effects when bonuses are solely based on students’ results.

<sup>17</sup> However, when rewards are given independently of specific task engagement or when rewards are not anticipated they are less likely to undermine intrinsic motivation.

<sup>18</sup> Group bonuses might have different effects.

	<p>not have long-term fiscal or pension implications. Bonus pay programs typically do not require new legislation which facilitates their implementation.</p> <ul style="list-style-type: none"> <li>- It does not add to base salaries and allows for flexible adjustment of the annual fiscal envelope by manipulating either the average size of the award or the share of candidates rewarded. Bonuses are easier to implement, adjust, and disband, if necessary.</li> <li>- For countries seeking a quick strategy for injecting performance incentives into single salary scales bonus pay might be an interesting alternative.</li> </ul>	<p>successful implementation of a new policy, whoever is responsible for teacher appraisals must be trained in doing so, and the quality of this training is crucial.</p> <ul style="list-style-type: none"> <li>- The design choices of the bonus pay systems are very important (bonus size, group vs individual bonus, criteria and threshold to receive it, etc.) and highly influence the success of the policy.</li> <li>- Programs are likely to have heterogeneous impacts on different types of schools.</li> </ul>
	<b>PERCEIVED EFFECTS</b>	
	<ul style="list-style-type: none"> <li>- As confirmed by different Randomized Control Trials the impact of bonus pay systems<sup>19</sup> can have different effects on students' results depending on a country and specific policy design.</li> </ul>	<ul style="list-style-type: none"> <li>- There is no evidence yet on the impact of bonus pay systems on the critical long-term question of teacher selection.</li> <li>- The literature is divided regarding the effects of the bonus pay in developing countries. Certain experts believe that bonus pay programs can work, perhaps especially in developing country contexts. They argue that different forms of individual and group incentives with a range of designs in a range of low- and middle-income developing country contexts have demonstrated positive impacts on student learning outcomes. Others, however, claim that bonus pay systems are largely ineffective and in developed countries, has been associated with teaching to the test, teachers leaving 'difficult' schools, and in some cases, cheating.</li> </ul>

<b>CAREER LADDER<sup>20</sup></b>	<b>MOTIVATION</b>	
	<ul style="list-style-type: none"> <li>- It allows linking pay to performance indirectly, and</li> </ul>	

<sup>19</sup> It is referred here to bonus pay systems that are not exclusively based on students' learning outcomes.

<sup>20</sup> There are three different types of a career ladder systems with corresponding advantages and disadvantages provided in the Table 2 below.

	<p>offering teachers a pathway for professional growth reducing the likelihood of it encouraging controlled motivation.</p> <ul style="list-style-type: none"> <li>- It seems to provide a way to recognise effort and talent in teachers, by ensuring that promotion to higher tiers and therefore to increased salary is based on thorough, standards-based evaluation. It thus provides an incentive for the teacher to keep improving.</li> <li>- Promotion is closely linked to improvement as a teacher, and gaining promotion is a recognition of competence. Consequently, teachers may be motivated by their desire to improve their teaching for the sake of the students, or by the desire to raise their status. This is why working towards certification or promotion need not undermine intrinsic motivation, as long as the environment in which they work is believed to be supportive rather than controlling.</li> </ul>	
<b>IMPLEMENTATION</b>		
		<ul style="list-style-type: none"> <li>- Setting the right standards or evaluation criteria (clear, specific, not too high/low) for promotion might be challenging.</li> <li>- With certain career structure designs, a higher spend on teacher salaries is unavoidable.</li> <li>- Designing effective evaluation system might be challenging as well (see evaluation modes below). For the successful implementation of a new teacher career ladder, whoever is doing the teacher appraisals must be trained in doing so, and the quality of this training is very important.</li> <li>- Choosing a threshold that is necessary for teachers to get promoted is a very important aspect – if set inadequately it can discourage teachers from applying</li> </ul>

		<p>to new positions or induce unsustainable and unpredicted financial costs.</p> <ul style="list-style-type: none"> <li>- It is important to choose an adequate steepness of the salary increases related to new positions which might be challenging.</li> </ul>
	<b>PERCEIVED EFFECTS</b>	
	<ul style="list-style-type: none"> <li>- The system differentiates teacher performance and recognizes as well as rewards excellence which is important to motivation. Prestige and recognition factors are highly motivating.</li> <li>- Cross-country studies suggest that professional incentives are a very powerful element in high-performing education systems.</li> </ul>	

**Table 2: Evaluation modes**

Evaluation mode	Advantages	Disadvantages
<b>CRITERION REFERENCED EVALUATION</b>	<b>MOTIVATION/EFFECTS</b>	
	<ul style="list-style-type: none"> <li>- Teachers are in control of their own progression: they will receive a promotion if they meet certain criteria. Teachers can help one another without jeopardizing their own prospects.</li> <li>- It avoids competition among teachers.</li> </ul>	
	<b>IMPLEMENTATION</b>	
		<ul style="list-style-type: none"> <li>- It is difficult to predict financial costs because it is not known how many teachers will meet the standards.</li> <li>- If the threshold of required standards is too low, financial costs can be very high and the policy might lose its incentive power. If the threshold is too high it can also be demotivating.</li> </ul>
<b>NORM REFERENCED EVALUATION</b>	<b>MOTIVATION/EFFECTS</b>	
		<ul style="list-style-type: none"> <li>- Stronger competition among colleagues, weaker collaboration</li> </ul>

		<p>and team work.</p> <ul style="list-style-type: none"> <li>- It is important to choose an adequate percentage of teachers that would receive a salary increase/promotion/bonus because if this percentage is too low or a too high it can have negative impact on teachers' motivation or financial costs.</li> <li>- The initial differences among teachers should be noted: if a certain group of teachers (e.g. in a certain school) has systematically more unfavorable conditions than others that they are compared to, it will be extremely hard for them to get into top 10% or 20% which is highly demotivating.</li> <li>- An award can be perceived as impossible to attain because teachers do not know what standards they need to achieve in order to earn it until after the fact.</li> <li>- School personnel and organisations have historically resisted this evaluation mode.</li> </ul>
	<b>IMPLEMENTATION</b>	
	<ul style="list-style-type: none"> <li>- Easier to estimate the costs of the reform because the number of future promoted teachers is known.</li> </ul>	

	<b>MOTIVATION/EFFECTS</b>	
<b>HOLISTIC EVALUATION</b>	<ul style="list-style-type: none"> <li>- Teachers' motivation to improve their teaching is stronger because they have to meet all selected competencies to progress.</li> </ul>	
	<b>IMPLEMENTATION</b>	
		<ul style="list-style-type: none"> <li>- Risk of corruption and partiality because often this evaluation is conducted by a superior (e.g. principal) and in this case the results of the evaluation depend on his/her quality.</li> </ul>

	<b>MOTIVATION/EFFECTS</b>	
<b>CUMULATIVE EVALUATION</b>		<ul style="list-style-type: none"> <li>- Teachers do not have to meet all competencies to progress and can therefore manipulate this aspect to score well in a certain aspect</li> </ul>

		only. <sup>21</sup> Teachers may seek to achieve a high score in an underhand way, rather than seeking to improve teaching.
	<b>IMPLEMENTATION</b>	
	– The overall outcome is objective and transparent: there is less scope for corruption (though individual components may be subjective).	

<b>EXTERNAL EVALUATION</b>	<b>MOTIVATION/EFFECTS</b>	
	– The judgment is more reliable because it helps overcome issues of subjectivity. It is particularly advantageous where there is not sufficient expertise to make such a judgment in school, as might be the case when a senior promotion is being considered.	
	<b>IMPLEMENTATION</b>	
		– Involving external assessors can be quite resource heavy and administratively complex.

<b>INTERNAL EVALUATION<sup>22</sup></b>  (mostly considering school principals)	<b>MOTIVATION/EFFECTS</b>	
	– Principals are generally capable of identifying teachers who produce the largest and smallest standardized achievement gains, but they are less able to distinguish between teachers in the middle of this distribution.	– Possible unreliability or collusion when only one, school-based assessor is involved: the judgment can be affected by the personal relationship between the principal and teacher or be open to corruption.
	<b>IMPLEMENTATION</b>	
		– In practice principals give consistently high ratings to their staff with little discrimination, even though they are able to do so. They do that in order to avoid the conflicts. – If evaluation is conducted by a principal his/her skills and rigor will determine the quality of the evaluation. They thus must be

<sup>21</sup> For example, a teacher may get a reasonable score in a peer evaluation, with the only criticism being they do not help the weakest students in the class. The same teacher may get a reasonable score from a parent evaluation too, with the same area of weakness. These two reasonable scores, combined with having taken part in professional development and having been in teaching long enough, may lead to a promotion without this area of weakness being addressed.

<sup>22</sup> If internal evaluation is conducted by a team of employees the effects will be different.

		<p>prepared for this task.</p> <ul style="list-style-type: none"> <li>- Self-evaluation and peer review process might also be undermined because often virtually all teachers receive the highest possible score on this dimension.</li> <li>- Even though school directors are a key source of teacher performance feedback, there are political and technical issues if their sole responsibility is teacher performance evaluation. It is hard for directors to have a system wide perspective on teachers' relative performance, and it is hard for them to deal with the immediate consequences for teacher morale of blocked promotions.</li> </ul>
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**Table 3: Bonus pay based on student results<sup>23</sup>**

<b>BONUS PAY BASED ON STUDENT RESULTS</b>	<b>MOTIVATION</b>	
		<ul style="list-style-type: none"> <li>- They rely solely on extrinsic incentives, which encourage extrinsic motivation and undermine intrinsic motivation.<sup>24</sup></li> <li>- Bonus pay offered for teachers' individual results can have perverse impacts on schools' overall results not only by undermining collaboration among teachers but also by making teachers unwilling to work with more challenging students.</li> </ul>
	<b>IMPLEMENTATION</b>	
		<ul style="list-style-type: none"> <li>- Student scores are also influenced by multiple additional factors, which are difficult to control for. Students often have more than one teacher across different subjects, which can influence how they perform in other subjects. Previous teachers may have an effect on children's performance. It is therefore difficult to effectively evaluate individual teacher's contribution to improved</li> </ul>

<sup>23</sup> Career progression based student results can have some similar negative effects.

<sup>24</sup> When rewards are contingent on high performance, they can be seen as affirmation of competence, which contributes to intrinsic motivation and so can off-set some of the negative effects of feeling controlled.

		<p>students' results.</p> <ul style="list-style-type: none"> <li>- Bonus pay will be ineffective if teachers lack the capacity to increase desired outcomes, and that it can be unfair if the desired results depend on factors outside of teachers' control (such as students' family background).</li> </ul>
	<b>PERCEIVED EFFECTS</b>	
	<ul style="list-style-type: none"> <li>- Bonus pay offers a way to link teacher pay directly to the most valued performance measure — student learning progress.</li> <li>- In certain countries, bonus pay based on students' results had positive impact on students' achievements as evaluated through randomized control trials (Andhra Pradesh, India's teacher incentive program). Teachers reported engaging in extra preparation for end-of year tests, afterschool classes, and so forth, compared with teachers in the control schools. However, in contrast to the India program results, the individual teacher bonuses in Mexico produced no improvements in student math scores vis-à-vis the control schools. However, including students in the bonus payments raised learning significantly. This attests to the fact that bonus pay systems are context-sensitive and their design is very important.</li> </ul>	<ul style="list-style-type: none"> <li>- It can be unfair to teachers in challenging schools with less able students.<sup>25</sup></li> <li>- In individual bonus pay it might discourage collaboration between teachers.</li> <li>- Free rider's issue appears in group bonuses.</li> <li>- In some cases it incentivizes 'teaching to the test' and cheating.</li> <li>- Since bonus pay programs necessarily prioritize a few explicit and measurable objectives—such as increasing student performance in a few tested grades and subjects - they undermine attention to other important goals and subjects, given the "multitasking" nature of teaching.</li> <li>- Tests are always imprecise measures of what students know, a student who takes the same test twice on the same day might not get the same score simply due to random factors.</li> </ul>

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<sup>25</sup> Most systems have attempted to avoid this problem by linking pay to improvement in scores rather than absolute scores, and measures that purport to take into account background characteristics that might make students harder to teach (Podgursky and Springer, 2007). Nevertheless, this does not always sufficiently take into account the relative difficulties in improving some students' results.



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