

Teacher Management

Module 2

Concepts of human resource management and forward planning



Teacher's College, Zambia. Credit: cPE/Alexandra Humme



United Nations
Educational, Scientific and
Cultural Organization



International Institute
for Educational Planning

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Cover photo: Teachers in class at the Teacher's College, Zambia, by photographer Alexandra Humme/GPE.

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List of abbreviations

| | |
|-------|--|
| AGORA | ATOSS personnel management application [France] |
| ATOSS | Administrative staff, Technicians, Workers, Health and Social staff [France] |
| CREPS | Centre for Sports Resources, Expertise and Performance [France] |
| HRM | Human resource management |
| HR | Human resources |
| ILO | International Labour Organization |
| OMEGA | Organisation par métiers des effectifs pour la gestion des Atoss [France] / <i>Organisation per occupation for ATOSS management</i> |
| SWP | Strategic workforce planning |

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Module 2: Concepts of human resource management and forward planning

..... MODULE 2

Before exploring teacher management, it is essential to have a clear understanding of what this term means. In fact, teacher management is simply the management of a category of civil service personnel employed by the Ministries of Education.

This module is therefore first of all devoted to the definition of what human resource management (HRM) represents and secondly to the specific study of one of its components: strategic planning. Finally, the module provides a detailed explanation of the method used for the teacher workforce planning process.

As such, you will have to become familiar with the concepts of human resources, give consideration to the development of the human resources function within your institution and become familiar with the method used for staff projections. This will enable you to address the forward analysis of teacher needs effectively and lay the foundations for better recruitment planning.

Part 1 defines the concepts of personnel management and HRM and also the evolution of HRM in the civil service. It then goes on to clarify the concepts of 'personnel management' and 'human resource management'. One of the key components of HRM, differentiating it from personnel management, is strategic planning. This component is presented in **Part 2**. Finally, the forward planning of the workforce is detailed in **Part 3**.



Objective of the module:

The objective of Module 2 is to help you gain an understanding of human resource management applied to the management of personnel in education, to explain what is meant by forward/strategic planning and to set out the objectives and the method of forecasting teacher needs.



Content of the module:

The module covers the following points:

- Definitions, and current objectives of human resource management in the public sector;
- Clarification of the concepts of strategic planning: of jobs, skills and staff numbers, i.e. strategic workforce planning;
- Forecasting teacher needs.



Expected learning outcomes:

- Define personnel management and human resource management;
- Identify and describe the components of an effective teacher management system following the HRM approach;
- Understand the purpose and methodology of strategic planning;
- Identify the data to be collected in order to create a scoreboard for planning staff numbers.



Questions for consideration:

In this module, you will be invited to answer some questions for consideration related to the content of parts 1 and 3. These questions will enable you to reflect on the content of each part to ensure a better comprehension. They will provide you with a more active and beneficial learning experience.



Additional reading:

With a view to achieving the objectives related to Module 2, we strongly recommend that, in addition to the material in the module, you consult the following documents:

- Batal, C. 2001. *La gestion des ressources humaines dans la fonction publique*. Paris: Les éditions d'organisation.
- UNESCO. 2010. Methodological guide for the analysis of teacher issues. *Teacher Training Initiative for Sub-Saharan Africa (TTISSA). Teacher Policy Development Guide*. Chapter 2. Paris: UNESCO.
- UNESCO-UIS. 2010. *Projecting the global demand for teachers: Meeting the goal for universal primary education by 2015*. Montreal: UNESCO-UIS.

Part 1. Definitions and context of human resource management

1.1 Clarifying the concepts

In order to understand what teacher management involves, it is important to consider it in the broader field of HRM. HRM seeks the best possible adaptation of human resources to the needs of an organisation, both *quantitatively* and *qualitatively*.

Since the 1980's, the designation 'personnel management' has shifted toward 'human resource management' in many Ministries of Education. This change reflects the awareness of a mismatch between human resources and the needs of organisations. Indeed, the concepts within public sector organisations in terms of personnel have changed significantly over the past decades in order to deal with the growing requirements for effective management.

In fact, this change was initiated in the private sector. However, in this module we shall focus more particularly on human resource management in the public sector since this concerns teachers directly.

Definitions of the concepts of "Personnel Management" and "Human Resource Management" are given below. To date, these definitions have not yet been recorded in a unique reference system. Other definitions can be consulted in the literature specialised in this field.

1.1.1 Evolution from personnel management to human resource management

About twenty years ago, what was known as personnel management existed in many organisations. The changes brought about by the emergence of human resource management reside in two aspects: on the one hand, the fact that this management is **strategic and mobilises** personnel and, on the other hand, the way in which employees are considered as a **resource** contributing substantially to the success of the organisation.

The organisation, whether private or public, is seen in a new light in that it is now considered as a group of human beings who coordinate their activities to reach specific goals. In other words, the organisational system no longer depends on a single person, the one in charge, but on all the staff and their will, motivation and comprehension of the goals to be reached. Consequently, to achieve its goals effectively, an organisation must clearly define its human resource management policy and the required means at different levels of responsibility within the organisation. An organisation's social network depends on it.

HRM seeks to create a match between the needs and personnel resources:

- The "**needs**" in human resources corresponds to the different jobs that must be filled appropriately to enable the structure to accomplish its missions.
- Human "**resources**" corresponds to the employees who are actually going to fill the different jobs.

The best possible match between an organisation's needs and human resources will be sought:

- (i) on the one hand, *quantitatively*, i.e. in terms of the workforce, by striving to reduce the number of situations of over or understaffing;
- (ii) on the other hand, *qualitatively*, i.e. in terms of skills and motivations, by striving to reduce the number of situations of under or overqualification and by ensuring that the motivations of employees are not at odds with those required by the different jobs.

Box 1.1: Definition of human resource management

“HRM covers all the activities that aim to develop the collective effectiveness of people working for the organisation. Since effectiveness measures to what extent the objectives are reached, the mission of HRM will be to pilot HR development with a view to achieving the organisation’s objectives. HRM defines the HR strategies and means, the organisational modes of operation and the logistics in order to develop the skills needed to reach the organisation’s objectives.”

Source: Igalens, J.; Roussel, P. (1998).

However, it is difficult to touch on the concept of human resource management without first clarifying the concept of *personnel management*. Personnel management refers to the individual and collective **administrative** management of personnel, such as pay, absence, retirement, etc. The term ‘*personnel administration*’ is also commonly used. This practice pivots around classical management procedures such as recruitment and appraisal, and the management of staff mobility, promotions and assignments. It is conducted without making a *direct reference to the objectives of the organisation* or to the needs of the personnel concerned.

The table below summarises the difference in approach between personnel management and human resource management.

Table 1.1: Differences between personnel management and HRM

| APPROACHES TO HR (J.IGALENS, 1991) | PERSONNEL MANAGEMENT | HRM |
|---|--|--|
| <i>Main postulate</i> | The employee is a cost to be minimised | The employee is a resource to be developed |
| <i>Training</i> | It serves to adapt the employee to his/her job | It is an investment for the present and the future of the organisation |
| <i>Forecast horizon</i> | Short and medium term | Long term |
| <i>Competitive advantage</i> | Market or technology | Quality of HR |
| <i>Source of productive effectiveness</i> | Machine and organisation | Machine, organisation and HR quality |
| <i>Source of motivation</i> | Money and career progression | Money, career progression and type of work |
| <i>In the face of change</i> | Resistance to change, it is the employee who has to change | HR are flexible and adaptive |

1.1.2 Qualitative dimension of HRM

It is important to emphasise the *qualitative dimension of HRM*. For C. Batal, in order to optimise the effectiveness of the organisation, “it is necessary to manage individuals and, consequently, to take into account their expectations, their aspirations and individual projects, considering that an employee’s effectiveness on the job always depends to a large extent on their motivation” (2001). This *qualitative dimension* is central to the Human Resource Management approach: It is no longer about “mass”, or purely quantitative personnel management but rather the management of individuals with a concern for organisational results.

The qualitative dimension of HRM related to skills and motivation consists:

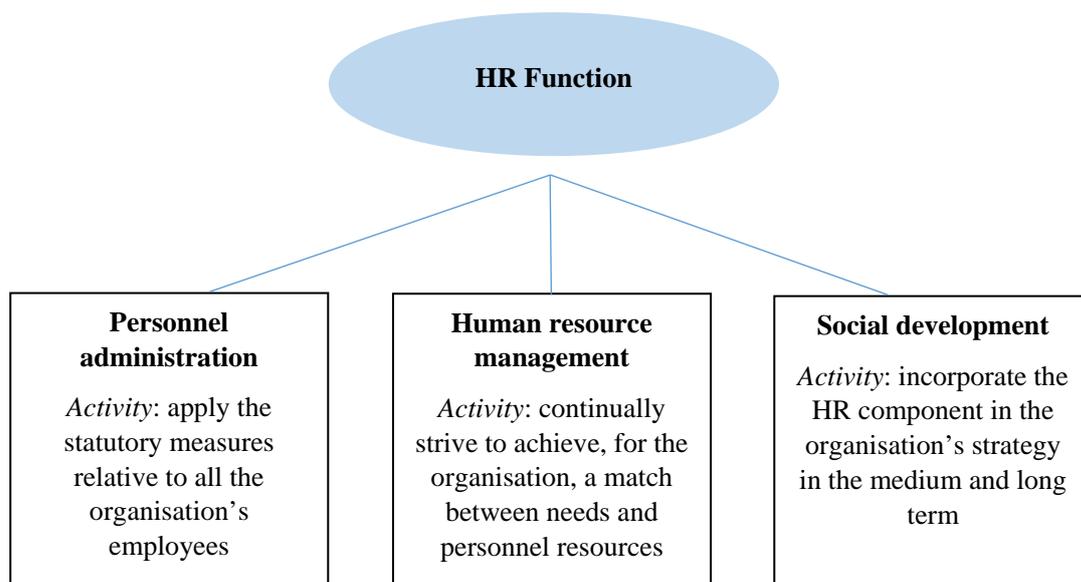
- firstly, of *identifying the “needs”*, i.e. of analysing the different work situations in order to detect the skills required to fulfil the missions of the organisation,
- secondly, of evaluating the human resources, in terms of skills and motivation,
- then of measuring the gaps that exist between the needs and the human resources,
- and finally of choosing the most appropriate means for reducing those gaps.

1.1.3 Evolution toward a strategic function

As already mentioned, the issues and missions associated with personnel management have gradually evolved and become more extensive. The human resource management function (detailed below), which includes a strategic vision of the organisation’s social development, comes in addition to the personnel administration (or personnel management) function.

- **Personnel administration:** The administrative management of personnel covers all the operations related to employee management, whether everyday individual management or collective management (see Figure 1.2). *Effective personnel administration is therefore essential for the development of the HR function.*
- **Human Resource Management:** Human Resource Management (HRM) is an extended conception of Personnel Management, from which it differs. The definitions of HRM generally place the accent on the final aim – especially on effectiveness - of the management of available human resources and not on the instruments of its action (recruitment, training, remuneration, information, working conditions, social relations, etc.) as per the concepts of traditional personnel management.
- **Strategic function (or social development):** the development of the Human Resources function goes hand in hand with strategic development. Indeed, the human resources department no longer just manages personnel but it contributes to the development of the organisation’s human capital. As a result, the missions of the human resources department extend to the management of staff numbers, knowhow, skills, initial and in-service training, remuneration, careers, and ongoing employability (Lethielleux, 2014).

Figure 1.1: The activities of the HR function



Source: Adapted from Lethielleux, L. (2014).

1.1.4 HRM fields

HRM includes several different and complex fields of activity, which is why it can be difficult to give a precise definition of how it operates.

The activities traditionally assigned to HRM are:

- **personnel administration:** The administrative management of personnel constitutes the support for, and the cornerstone of personnel management. This dimension of HRM covers all the tasks connected to the legal and administrative aspects of the function: payroll, drafting of employment contracts, application of legal norms, etc.;
- **jobs management:** recruitment, appraisal, career management, staff mobility, downsizing, retirements;
- **skills management:** This aspect of HRM is least developed in public service administration. It concerns everything to do with the accountability, recognition and motivation of employees. It covers the following fields:
 - collective management (strategic workforce planning and follow up),
 - individual or individualised management (grading, appraisal, training, functional and geographical mobility, ...).
- **management of remuneration and control of labour costs;**
- **communication policy (internal/external, upward/downward);**
- **improvement of working conditions:** This concerns the organisation of work, the distribution of tasks and means, and time and space management.
- **management of social relations (negotiations with social partners):** This concerns the administration's relations with social partners. It covers the organisation of professional elections, the creation of joint bodies, their call for consultation *and also the organisation of a social dialogue.*

1.1.5 HRM function

The different fields of activity of HRM can be split into four distinct levels:

1. routine individual and collective management of personnel according to applicable legal provisions and regulations,
2. strategic planning, concerned with matching human resources to the needs of the organisation,
3. information and communication directed to staff,
4. working conditions and social relations.

Figure 1.2 presents the different activities included in the HRM function.

Figure 1.2: The different HRM activities per level

| | | | |
|--|--|---|---------------------------|
| | | INFORMATION | |
| | | Information Internal and external communication Use of the media Onboarding of young transferred/promoted employees Initial and in-service training | |
| ROUTINE MANAGEMENT | Regulations Files and folders Recruitment Transfers Discipline and rewards Remuneration and allowances Social security and health insurance Pensions Regular medical management Career progression Grading | HRM | STRATEGIC PLANNING |
| | | Statistics Forward studies Budget Scoreboard Management control Mission/overall project Career plan Recruitment plan Evaluation | |
| | | Deontology Negotiation, dialogue Joint bodies Joint working groups Working conditions Prevention, hygiene and safety | |
| WORKING CONDITIONS – SOCIAL RELATIONS | | | |

Source: Adapted from ILO, 1992



Questions for consideration

The following table illustrates the evolution of the human resources function differentiating a 'traditional' personnel department and a 'modern' human resources department. In your opinion, in what field(s) (recruitment, training, etc.) does teacher management in your country correspond to HRM or rather to 'personnel management'?

Table 1.2: Evolution of the HR function

| Roles and missions | Function | |
|-----------------------------|--|--|
| | Personnel manager | Human resources manager |
| Recruitment | <ul style="list-style-type: none"> - Handling certain recruitments - Follow up on the work of operational staff in their recruitments and administrative management (pay, employment contract) | <ul style="list-style-type: none"> - Definition of the recruitment policy - Management of some strategic recruitments - Coordination of the other recruitments, managed by a specialized executive (in charge of recruitment) or by operational staff - Strategic decision-making related to outsourcing |
| Training | <ul style="list-style-type: none"> - Definition of the training plan and monitoring of its implementation - Choice of service providers | <ul style="list-style-type: none"> - Training policy impetus - Monitoring of the training processes which are usually implemented by a specialized executive in charge of training |
| Career management | <ul style="list-style-type: none"> - Few actions in this field - Possibly setting up of annual interviews - Management of transfer requests | <ul style="list-style-type: none"> - Monitoring of projects for the development of career management tools - Implementation of strategic skills planning tools |
| Pay and remuneration | <ul style="list-style-type: none"> - Administrative management and supervision of payroll - Allocation of pay rise packages | <ul style="list-style-type: none"> - Definition of salary policy - Setting up of employee participation, incentive or variable remuneration schemes - Supervision of Compensation & Benefits |
| Social relations | <ul style="list-style-type: none"> - Close management of relations with social partners - Management of individual disputes | <ul style="list-style-type: none"> - Supervision of negotiations and setting-up of agreements - Handling of certain sensitive negotiations and separation processes (e.g. transactions) |
| HR studies | <ul style="list-style-type: none"> - Little involvement in HR studies | <ul style="list-style-type: none"> - Definition of fields of study, more particularly in line with requests from senior management - Setting up and analysis of qualitative and quantitative studies |

Source: Adapted from APEC (2004), *Les métiers des Ressources Humaines* (cited in Lethielleux, 2014).

1.2 Applying HRM to teacher management

Teacher management is usually incumbent upon one or several organisations. In Francophone countries, the Ministry of Education is usually in charge of this, whereas in Anglophone countries, entities are often created that are independent from the ministry (e.g. Teaching Service Commission).

Whatever the name of the main body in charge of teachers, the principal functions to be accomplished are the same as those allocated to Human Resource Departments in trade and industry, i.e.

1. Recruitment, training and motivation of staff
2. Negotiations on salaries and conditions of service
3. Organisation of payroll and bonuses
4. Creation of staffing norms
5. Personnel deployment in the framework of a management policy
6. Monitoring and evaluation of staff performance
7. Provision of opportunities for individual and professional development
8. Development of a communication system adapted to a positive management system
9. Development of ethical professional conduct, which fosters mutual understanding and joint initiatives
10. Planning of future needs.

In the field of education, all these objectives cannot be achieved without the support of other departments or ministries. In particular, close cooperation with the Planning Department, the department in charge of the payroll and the Ministry of Finance is essential.

In addition to the functions listed above, the ministry in charge of teacher management must develop and maintain a variety of appropriate policies and procedures for the promotion of good practice regarding personnel. They include:

- Preparation of a teacher policy based on cooperation;
- Decentralisation and delegation of authority;
- Provision of an adequate and well-trained personnel department;
- Effective registration procedures (regularly updated in the databases and registers);
- Open, transparent procedures for appointments, confirmations, transfers, promotions, dismissals;
- Implementation of the other conditions of service.

While some improvements require substantial investments (e.g. salary increases), many others can be implemented at little cost (good management, enhanced registration procedures, etc.).

1.3 Implementation difficulties

The specific challenge of the HRM function in the public sector consists however of striking a balance between the statutory imperatives specific to the civil service and the concern for personnel and skills development.

HRM must incorporate two approaches when applied to the public sector:

- *the occupational approach* (strategic workforce management) and
- *the career approach* (statutory dimension, management of the different personnel categories).

It ensues from the previous sections that one can only talk about true human resource management insofar as a professional reference framework has been correctly identified:

- Precise evaluation of the functions and workload for each entity;
- Definition of employment positions;
- Description of employee profiles for position assignment;
- Preparation and application of scoreboards, forward studies or career path simulations in order to plan recruitments, promotions and training, for example.

In practice, strategic planning, especially skills planning, is the most difficult to implement. Even in the private sector and in public administration in developed countries, this is often neglected and even non-existent at times.

Administrative departments in charge of education have striven to adapt to the new working methods. Nevertheless, developments in terms of HR are seen to have been faster in the most advanced countries compared to many developing countries.

Generally, in most countries, a regulatory framework defines the operations related to the management of public service staff. However, this has not changed for many years and has become obsolete faced with the rapid evolution of the reality of effective management in the public sector. Even when the framework has been updated and the administrative management operations defined, these often come up against inadequate application for different reasons: lack of renewal of data collection and management tools, lack of initial and in-service training for personnel handling these operations, etc.

As a result, human resource management is sometimes limited to the administrative management of employees' careers. Only the administrative tasks related to recruitment, tenure and career progression are in fact taken into account. Similarly, management tools are sometimes ill-adapted or incomplete. It is, for instance, impossible to manage personnel properly on the sole basis of individual files, as is sometimes the case.

In addition, the different personnel management sub-functions (recruitment, remuneration, inspection/appraisal, etc.) are often managed somewhat independently by Ministries or other departments. This results in duplication and risk of divergence or even inconsistencies in the management of public sector employees.



Highlights

- Teacher management corresponds to the management of a category of civil service personnel.
- Human resource management is a more complex and dynamic concept than personnel management;
- HRM is based on the rigorous accomplishment of routine personnel management and a precise knowledge of existing resources, while granting special attention to the qualitative aspects and to the forward planning dimension;
- The ownership and development of human resource management tools is essential; these tools must be adapted to the context of each country;
- The effectiveness of any HRM policy also depends on the definition of an organigram and on the organisation of the administrative structures in charge of its implementation.¹

¹ For a better knowledge of these approaches, please read the following book: Anne-Elisabeth Andréassian, 2001, *Economie de l'entreprise et gestion*, Ed. Montchrestien.

Part 2. Strategic planning

We have just run through what human resource management is and the differences with simple personnel management. In this part, we shall look at one of the components of HRM that enables the deployment and the concerted, well-reasoned planning of its long-term objectives.

2.1 Definitions and objectives of strategic workforce planning

Beyond routine management, a true control of personnel resources supposes long-term management, going beyond the immediate problems and needs in order to anticipate future problems and needs; in other words, management that plans as far as possible for the future, i.e. forward or strategic planning. So-called strategic workforce planning (SWP) takes into account the quantitative and qualitative aspects of this management.

SWP defines the key element of the process initiated by an organisation and all the actions that aim to ensure a match between jobs and resources. It is a way to strike a balance between HR forecasting and major strategic objectives. This is the forward-looking and preventive management of human resources, in line with external constraints and the organisation's strategic choices. SWP consists of the overall processes, procedures and methods that aim to describe and analyse the different possible futures of the organisation with a view to informing, analysing and anticipating decisions regarding human resources. It is not easy to implement this type of management and a truly forward-looking vision of skills is still often lacking.

Strategic planning relies on both an as exact as possible knowledge of what exists in terms of resources and needs, and an as precise as possible evaluation of availability and foreseeable needs.

- The estimation of availability is based on the probable evolution of what exists, in terms of staff leaving and arriving to be calculated on statistical data and projections, and in terms of budget resources.
- The estimation of needs is based on the estimated evolution of the structures, on the analysis of the missions and tasks to be accomplished and on the volume of the corresponding needs. These operations depend on the ability of HRM to calculate probability.

There is known to be a considerable force of inertia affecting workforce planning in public administration, more than in any other organisation, due to the very principles underlying the general status of civil service: competition-based recruitment, guaranteed employment, career principle, as written by Serge Vallemont (1998). Any evolution in the field of SWP is therefore very slow, particularly as it implies consolidating the knowhow of the central human resource management services through the strengthening of the tasks of analysis and conception as opposed to those of actual management.

Box 2.1: The objectives of strategic planning in the civil service

Strategic human resource management in the public sector pursues precise objectives to ensure the optimal operation of the State system. It is about:

- Controlling staff numbers, i.e. monitoring their quantitative and qualitative evolution, and controlling corresponding costs, by measuring the consequences for government finance in terms of salary costs and additional remuneration;
- Designing and implementing a human resource promotion and development policy, related to systems of remuneration and motivation, legal employment regimes of the different employee categories – and particularly the statutory rules for civil servants, career prospects and possibilities of geographical or intersectoral mobility;
- Measuring the short and medium - term quantitative and qualitative staffing needs, taking into account the evolution of public service roles and responsibilities as well as the financial resources needed to cover the remunerations and the running costs corresponding to these needs;
- Designing and implementing a programme to satisfy the determined needs according to the possibilities offered internally by the national training system and the employment market, taking into account the social and political costs of the envisaged measures, and externally by the financial and human contributions from donors, given the conditions linked to these contributions.

2.2 SWP components

The different components of SWP are presented by Serge Vallemont (1998) as follows.

Table 2.1: Different types of strategic planning

| | | Content | Objective |
|-----------------------|-----------|---|--|
| Quantitative planning | strategic | Demographic and quantitative approach to human resources | Inform decisions in terms of staff to be recruited in each category |
| Qualitative planning | strategic | Evaluation of existing qualifications and of skills needed to satisfy foreseeable needs | Inform decisions as to the definition of profiles to be recruited and vocational training to be implemented |
| Collective planning | strategic | Reference framework for the management of each category in terms of evolution of staff budgeted, levels of recruitment, pace of career progression, training policies | Enable the gradual match of the characteristics of a given category (staff numbers, qualifications) with the new functions attributed to its members |
| Individual planning | strategic | Individualised management of the employee's career according to his/her potential and aspirations | Highlight skills acquired and detect potential |

Source: Vallemont, 1998

2.3 Process and steps

The process for implementation of the different SWP components is the following:

Strategic planning of staff numbers is a quantitative approach based on the knowledge of available human resources that consists of collecting the information required to know current

staff levels and all related data in order to deduct projected outflows. The key tool for strategic staff planning is the personnel file or database where data must be extended to cover the entire career path, from initial training to in-service training and future career desiderata (detected during the annual appraisal interview).

The tools used are the scoreboards of stock (e.g. table of staff per category and statutory position with delegated jobs and vacant jobs), the age pyramid, the seniority pyramid, the scoreboard of natural evolution (resignation, death, retirement, maternity leave, promotion, secondment, non-active service assignment, return from secondment and non-active service, etc.), which enable the detection of trends and factors of staff evolution and thereafter the projection of staff numbers for the years to come.

Strategic workforce planning is a qualitative process centred on the assessment of existing qualifications and of the skills required to meet foreseeable needs.

Developing this qualitative approach resides in two complementary elements: the first consists of controlling individual skills while the second aims at knowing and developing collective skills.

The evolution of existing qualifications will be based:

- at individual level, on a statement of the skills actually developed by each employee (the basic tools will be the appraisal interview and the evaluation of training needs);
- at collective level, on a census of job profiles and of the skills required by family of jobs.

Based on this inventory and in line with the defined areas for change, strategic workforce planning will comprise three phases:

Individual and collective skills assessment

The census of available skills will only marginally be carried out individually (through an appraisal interview or a skills inventory) for personnel whose level of responsibility or specific activity requires individual management.

For collectively managed jobs (e.g. administrative secretaries, lower secondary teachers, upper secondary teachers, head teachers, etc.), the skills census will be carried out anonymously by job family. A job description will be drawn up and lead to an analysis of the required skills (knowing or knowledge, knowhow or technicity, interpersonal skills or behaviour). The result of this approach is the development of a job nomenclature.

Occupations, job profiles required for the future

Thought must be given to future needs in terms of qualifications and skills.

How should existing job types change (job type meaning a unit incorporating a set of activities that call upon the same professional requirements)? Which skills are insufficiently developed at present? Which skills should be developed taking into account the foreseeable evolution of job types?

Action plans to be implemented (reorganisation, training, career management)

Following the census of existing human resources and the estimation of quantitative and qualitative trends, the consequences should be drawn in terms of human resource policy. The action-levers will not be examined in detail here; however, these are:

- recruitment, by working on the rules and modalities of recruitment, the professionalization of the recruitment process,
- continuing training and preparation for exams,
- personalised strategic planning for managerial positions and sensitive posts.

Table 2.2: Strategic planning tools

| STEPS IN THE PROCESS | MAIN HR TOOLS |
|--|---|
| First step: Identification of the issue and analysis of the situation | <ul style="list-style-type: none"> - Skills frame of reference - Age pyramid - Staff flow table - Study of posts - Social audit - Organisational analysis tools |
| Second step: Definition of an action plan | <ul style="list-style-type: none"> - Planning tools |
| Third step: Implementation and evaluation of the action plan | <ul style="list-style-type: none"> - Social indicators - Annual appraisal interview Training plan Recruitment plan Communication plan |

Source: RH Organisation, http://www.rh-organisation.fr/dossiers_pdf/la-gestion-des-emplois-et-des-competences.pdf

2.4 Conditions for successful SWP

The successful implementation of SWP resides in:

- a strong commitment from deciders,
- the involvement of operational managers,
- the information provided to personnel as to future career possibilities,
- the information to, and even the participation of, staff representatives,
- the adaptation of rules and procedures to objectives (e.g. not going ahead with external recruitment when employees within the organisation are competent and available for these jobs),
- the capacity of human resource departments to implement analyses and action plans.

Box 2.2: An example in France: OMEGA (Organisation per occupation for ATOSS* management).

This is a management tool implemented in 1990 in the framework of the “renewal of the public service”, to measure and anticipate the gaps between needs and resources.

It concerns all ATOSS personnel from the external services of the Ministry of Education (rectorates, school inspectorates, secondary schools, regional and district departments of Youth and Sports, CREPS – Centre for Sports Ressources, Expertise and Performance, other public institutions) as well as all administrative and medico-social staff in tertiary education, i.e. a total of 200 000 employees.

OMEGA has two aspects:

Quantitative: to assess the needs according to the age pyramid in order to fill vacant positions,

Qualitative: to foresee changes in job profiles, and in the tasks and qualifications needed to accomplish them.

The occupational (“occupation” to cover all the essential activities for a given function and the set of skills needed to perform it) analysis approach was adopted and a list of 108 occupation-types drawn up at national level. Those in charge of academic education had then to prepare new academic training plans and set up the training required per occupation but also to express these needs in terms of categories in order to prepare recruitments or request a new distribution of resources from the Ministry. New training courses were organised to strengthen employees’ skills and better adapt them to the jobs they perform or are to perform.

However, the device did not meet with the agreement of the trade unions (on the pretext of absence of consultation, insufficient information to personnel, etc.) and aroused concerns from personnel. Moreover, the strategic process has only been partially carried out and is experimental in several *académies*.

In 1998, a round table of ATOSS personnel recommended an assessment of the device and the introduction of the job nomenclature in AGORA, the ATOSS personnel management application. As the list of occupations was drawn up in 1990, it needs updating in view of the evolution of the employees’ professional context; updating was initiated in 2001.

The process is still ongoing, in a chaotic manner, since considerable investment is required from the academic divisions that have had little training in the SWP approach.

(*) ATOSS: Administrative staff, Technicians, Workers, Health and Social staff.

As we have just seen, strategic planning has several components. In the following part, we shall only examine the aspect of quantitative strategic planning.



Highlights

SWP comprises several aspects:

- quantitative strategic planning based on the quality of current data collected and a medium and long-term projection of possible developments;
- qualitative strategic planning centred on employee career development and on possible redeployment of posts related to individual skills;
- collective strategic planning based on social relations and on job descriptions within each job family;
- personalised strategic planning related to personnel flows (retirements, possible mobility, promotions, etc.).

Part 3. Forward planning of the teacher workforce

This part handles quantitative strategic teacher planning. As seen previously, this is based on a demographic and quantitative approach to human resources. Its objective is to inform decisions in terms of staff numbers to be recruited.

Forward planning of the teacher workforce can be conducted in the short or medium to long term. We shall start by looking at short term forward planning and the preparation of the scoreboard for the new school year, and then at modelling processes for medium to long-term projections.

3.1 Forecasting short-term teacher needs

3.1.1 Objectives

This management stage is part of the preparation for the following school year with the final aim of placing each pupil in a classroom with a teacher for that school year.

In this context, human resource management is in charge of preparing teacher transfers, which should take into account teachers' mobility requests and teacher needs.

The forecasting of teacher needs is carried out when preparing the new school year. It must include all the events apt to modify the existing relationship between educational supply and educational demand.

Two definitions can be mentioned here:

- **educational supply** is made up of the potential number of teachers available, all teacher status and categories combined, corresponding to the provision of an overall number of teaching hours.
- **educational demand** is represented by the number of pupils enrolled corresponding to a number of teaching hours to be provided depending on the distribution of the pupils in the different levels of education.

When preparing the new school year, the objective of teacher planning is to plan teacher needs at the finest level, the school, by the most appropriate operational level: the region or the *académie*, the district or the inspectorate.

The geographical level is selected according to its capacity to mobilise and process the information needed to prepare staff transfers and its proximity to school issues.

3.1.2 Method

Teacher needs are estimated by comparing educational supply and demand.

Firstly, the situation of a new school year should be described, that is the initial situation before any work is done on forecasting for the following school year. The line of reasoning is one of stock, which compares two global entities: supply and demand. There results a situation of surplus or of deficit according to the teacher category and/or the subject matter and/or the geographical location.

Secondly, teacher needs are estimated for the following school year by identifying the elements likely to affect the two components of those needs, i.e. educational supply and demand. This is about flows.

Teacher needs for the following school year will incorporate the surpluses and/or deficits observed at the beginning of the previous school year and the new projected needs.

3.1.3 Steps

Forecasting teacher needs in preparation for the following school year basically requires the pragmatic mobilisation of information:

At educational supply level

- a) *Knowledge of teacher potential described by gender, age, category, status, subject matters, place of assignment*

This means describing the context in which the future school year is prepared.

Knowledge of the utilisation of teacher potential with indicators such as teacher utilisation rates (number of hours worked compared to number of hours due) and knowledge of teaching conditions such as multigrade classes, double shift classes ...

These elements allow for an estimation of surpluses or deficits of teacher potential, which is the starting point for strategic teacher management.

This description is to be carried out at the most discriminating geographical level. In line with studies already conducted, it seems wise to distinguish urban and semi-urban areas from rural areas where teacher needs are known to be very different.

- b) *Knowledge of events liable to modify teacher potential for the following school year*

This concerns the elements that are to affect teacher potential permanently or temporarily. All the factors of a diminution of teacher potential should be described here.

The following can be mentioned as definitive outflows: retirement, resignation, dismissal, death, change of function, passing competitive exams, etc.

The following can be mentioned as temporary outflows: departures less possible reinstatements concerning non-active service, secondments in other ministries, training leave, parental leave, part-time work, etc.

In addition to these two factors of diminution of educational supply, the number of teaching hours not provided due to teacher absenteeism must also be taken into account.

- c) *Mobilisation of quantified data to measure future modifications in teacher potential*

This combines the following two steps:

- **The inventory of information already available:** In the framework of individual teacher management, calendars are usually established specifying the procedures for individual requests for a change of situation, which are part of the factors of diminution: applications for retirement, non-active service, secondment, training leave, part-time work, etc. Application deadlines before the beginning of the next school year leave time for obtaining the information required to forecast teacher needs.
- **The forecast or estimations based on information from previous years:** Events such as resignations, passing competitive examinations, death and future absence, which are taken into account in the forecast of teacher needs, are to be estimated for the coming year either by studying the trends over a number of years or, in the case of a short-term forecast, by reusing the known data from the previous school year.

At educational demand level

The evolution in educational demand for the following school year depends primarily on the changes in school demographics and on possible modifications to curricula, which may

generate new needs: e.g. strengthening language teaching in secondary education, which will generate additional teacher needs in the subjects concerned.

School demographics change due to the rising pedagogical flow of pupils already enrolled and also to decisions to open new classes at each level of primary and secondary education.

The first step will concern pupil enrolment projections and the second the estimation of new teacher needs resulting from the net increases in enrolments.

The forecast of new teacher needs will be the combined result:

- of the estimations of new needs calculated from the schools' projected enrolments,
- of a regional or national needs frame including: the global needs related to projected enrolments, methods of estimation based on the pupil-teacher ratio or the number of hours of instruction per pupil, the effects of possible curricula changes.

3.1.4 Tools

On account of the diversity of information to be mobilised, it is advisable to draw on scoreboards composed of the different elements detected above and which should be completed as information becomes available.

These scoreboards will thus make it possible to report on the needs estimation process and facilitate follow-up.

The geographical level in charge of these scoreboards corresponds to the level that is directly operational for the preparation of staff transfers, and so depends on the type of organisation in place. The most appropriate level for reasons of proximity should be at regional or district level.

Example of a scoreboard related to educational supply

The aim here is to quantify the level of the needs related to the diminution of the stock of teachers.

Ratios such as the rate of outflow per reason for leaving can easily be calculated. They may be used for a forecast based on an equivalent scoreboard created with data from the previous year, should data for the coming year be unavailable.

| Review of initial STOCK | | Definitive outflows | | | | | | Temporary outflows | | | | | Total diminution | | |
|------------------------------|-----------------|---------------------|-------------|-----------|-------|--------------------|---------------------|--------------------|------------|----------|--------------------------|------------------|--------------------------|-------------------------|---------------------------|
| teacher category per subject | teacher numbers | retirement | resignation | dismissal | death | change of function | passing competitive | non-active service | secondment | training | Parental leave part-time | national service | total definitive outflow | total temporary outflow | overall number of leavers |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

Example of a scoreboard synthesising educational supply/demand

A review of the initial situation, i.e. of the ongoing new school year, enables the surplus or deficit situations already observed, to be taken into account.

The overall new needs related to the expected decrease in educational supply and to the growing demand for education as a result of a change in demographic and pedagogic trends expected for the following school year.

| review of initial situation | | new supply-related needs | | | new demand-related needs | | estimated needs for the following school year |
|------------------------------|--------------------|--------------------------|-------------------|--|------------------------------|---------------------|--|
| teacher category per subject | surplus or deficit | definitive outflow | temporary outflow | new replacement needs related to change in absenteeism | changing school demographics | pedagogical changes | total of all columns including surplus deficit |
| | | | | | | | |

In conclusion, the central system will be able to use the different scoreboards for the best possible distribution of available human resources among the different geographical entities: new teachers coming out of training institutions and personnel recruited in different status categories: contract teachers, supply teachers, national service volunteers, etc.



Questions for individual consideration

Think individually about the questions below. Write up your answers in the form of short notes and file them with the utmost care so that you will have them available for the group discussions.

What tools are used for the forecasts (software, tables, ...)?

How is the inventory of information on educational supply conducted?

- Projections compared to year n-1 and n?
- Forms filled out by teachers?
- At what level (local, national) are forecasts made?
- Are local data cross-referenced with those on educational supply/demand at national level?

3.2 Forecasting medium/long-term teacher needs

3.2.1 Objectives

The objective of planning teacher needs for the long term is:

- Related to the initial diagnosis, the correction of imbalances observed in terms of surpluses or deficits according to the teacher's category or subject, to geographical location and to the type of school.
- Related to enrolment objectives and planned methods of organisation, the improvement of the operation of the education system and of its efficiency in order to achieve those objectives.
- The estimation of new places to be offered in the different recruitment examinations according to the teacher's category and subject taught;
- The estimation of places required in the education faculties and teacher training schools in order to anticipate the recruitment of qualified teachers;
- The forecast of the number of training sessions to be provided to in-post teachers.

Forecasting teacher needs in the medium/long term is part of the overall strategic management of the education system.

The work of forecasting involves some strategic choices selected within the framework of educational policies, the latter being more often than not conditioned themselves by budget constraints.

Long-term planning must indeed take into account future educational policy programmes and assess their consequences at teacher needs level. It may concern development policies for access to education, appropriate pupil guidance policies for the development of training branches, and curricula adjustment.

The central level plays a leading role here: it finalises the main avenues or patterns of development and carries out the work of forecasting at national level. This will serve as a framework for the regional or sub-regional authorities, which may be called upon to carry out their own forecasts of long-term teacher needs.

3.2.2 Method

Long-term forecasting takes place in the framework of a more and more complex reality that must be simplified in order to better approach it.

The long-term forecasting of teacher needs is thus a difficult exercise since it must identify all the factors that might influence the needs, foresee future developments and measure their impact.

In order to tackle this complexity, a forecast and/or simulation model must be built to describe in detail the functioning of the education system in the framework of the definition of teacher needs. To do so, the factors that summarise and best describe this process must be selected.

Let us touch on the definition of a **model** here: It is a simplified representation of reality, a dynamic combination of the elements that are the most relevant to describe this reality.

A model is a simplified representation of a system but it must indicate a logical sequence of cause and effect, to enable the deduction of the quantified levels of the different elements of the model in relation to one another.

Examples of a logical sequence of events to be modelled:

▪ **In the framework of the preparation of teacher transfers:**

- 1) setting an objective: minimise teacher surpluses or deficits per subject and per geographical area or type of school,
- 2) setting mobility criteria, which can be differentiated according to geographical area or type of school, such as a minimum number of years of seniority, ,
- 3) estimating the number of teachers who meet the mobility criteria defined above,
- 4) estimating the number of teachers likely to transfer by only applying mobility rates (observed at the opening of previous school years) to those teachers who meet the transfer criteria,
- 5) estimating the impact of the measure on teacher surpluses and/or deficits per subject and per geographical area or type of school.

▪ **In the framework of the estimation of new teacher needs:**

- 1) setting an objective: develop vocational education targeting specific training branches,
- 2) setting vocational education enrolment rates for pupils at the end of lower secondary education,
- 3) estimating the number of additional enrolments by applying the vocational enrolment rates to pupils at the end of lower secondary education,
- 4) estimating new teacher needs in view of the new pupil enrolments in vocational education.

3.3 Simplified examples of forecast models for teacher needs

Two types of factors affect the new needs for teachers:

- the foreseeable change in educational demand resulting:
 - at quantitative level: from the number of pupil enrolments,
 - at qualitative level: from the conditions of education, more particularly related to class size, the number of teaching hours per subject, the curricula, etc.
- the foreseeable change in teacher potential resulting:
 - from events such as retirements, resignations, etc. that lead to a diminution of teacher potential and generate needs for renewal.

Each type of factor creating new teacher needs **requires a model** taking into account the different steps presented earlier:

- definition of data to be mobilised,
- assumptions regarding the evolution of a number of factors to be defined and
- connections between factors to be formalised by means of equations.

The quality of the model can then be tested.

Simplified forecast model for demand-related teacher needs

This example of a model related to educational demand comprises three phases: the forecast of the number of pupil enrolments, the forecast of the pedagogical structures required to accommodate those pupils, and the consequences on the need for teachers.

a) *For the forecast of enrolments:*

Data to be mobilised

- the demographic base of children entering the school system: 6 year old population per gender, 6 year old in-school children
- the number of enrolments per level of study: totals detailed per pupils who pass, those who repeat and those who drop out
- the distribution of pupils per education sector: public, private, denominational, ...

Assumptions for the future – trends or objectives

Some examples of factors to be modified:

- the intake rate for 6 year olds in the first grade of primary education is a determining factor in reflecting the choice made in terms of access to education, especially for taking into account the enrolment of girls.
- retention rates from basic to secondary education reflect the policy adopted to raise young people's levels of qualifications. They are completed by the enrolment rates in the general, technological and vocational branches, which may result both from proactive career guidance policies and from family choices.
- schooling patterns described by the repetition rates, pass rates and dropout rates have a direct effect on the number of enrolments. For example, repetition rates increase the duration of schooling and consequently the number of enrolments. Policies to reduce dropping out may include setting objectives as to a maximum dropout rate not to be exceeded.
- The distribution of education in the public, private and other sectors has also to be defined.

Connections between factors – methods of calculation:

Some examples of factors to be modified

- Projection of number of children enrolled at the age of 6 =
(enrolment rate) X (number of 6-year olds: demographic base)
- projection of the number of pupils per level of education = passers + repeaters
passers = (pass rate) X (enrolments in previous level the year before)
repeaters = (repetition rate) X (enrolments from the year before)

b) *For the forecast of pedagogical structures*

Data to be mobilised

- the number of pedagogical divisions (classes and/or groups) per level of education,

- the average size of the pedagogical divisions: the number of pupils per division,
- data on the specific conditions of education, such as double shift classes or multigrade divisions.

Assumptions for the future – trends or objectives

Some examples of factors to be modified

- the number of pupils per teacher for basic education and the number of pupils per pedagogical division for secondary education are decisive indicators for appreciating the quality of the education system.
- the splitting of pedagogical divisions for some subjects – languages or technological and vocational specialities - is also a question of pedagogical choice that aims at improving the quality of education and of its outputs. It may concern objectives to be achieved at a given term with a trend to be applied during the forecast period.
- the portion of multigrade divisions is the reflection of geographical constraints for schooling in rural areas. Their share in the total number of divisions is connected to this type of schooling, which promotes the proximity of school-age children to their school.

Connections between factors – methods of calculation

Examples of equations

- Projection of the number of pedagogical divisions =
 $(\text{estimated number of pupils}) / (\text{number of pupils per division})$
- Projection of the number of multigrade divisions =
 $(\text{number of pedagogical divisions}) * (\text{estimated share of multigrade divisions})$

| |
|---|
| c) For the forecast of demand-related teacher needs |
|---|

Data to be mobilised

Data to be mobilised come from calculations made in the previous steps.

Assumptions for the future – trends or objectives

Some examples of factors to be modified

- the adjustment of timetables per subject directly affects teacher needs; modifications often take place during the forecasting period. The model can then serve to assess the effects of one or another measure on teacher needs.
- The improvement of the productivity of teacher potential translates into the reduction of the gap between hours due and hours worked or yet again by the difference between the theoretical teacher need detected by the model and the actual number of teachers.

Connections between factors – methods of calculation

Different stages of calculation must follow on from each other:

- **projection of theoretical teaching hour needs (secondary education) =**
 $(\text{timetable per subject}) \times (\text{estimated number of pedagogical divisions})$
- **projection of theoretical teacher needs =**

for basic education:

$(\text{estimated number of pedagogical divisions-classes}) + (\frac{1}{2} \text{ number of multigrade divisions})$

for secondary education:

$$(\text{theoretical need in hours}) / (\text{number of hours due per teacher})$$

- **the calculation of a corrective coefficient** to match the theoretical needs calculated by the model and the observation of real needs. The corrective coefficient is obtained from a test of the model on historical data. The gaps observed between theoretical needs calculated by the model and the teacher potential actually assigned to schools indicates the losses in productivity due to different constraints, especially those connected to the poor distribution of teachers throughout the territory compared to needs.

Corrective coefficient =

$$(\text{teacher potential assigned to schools}) / (\text{theoretical needs})$$

- **forecasted teacher needs related to educational demand =**

$$(\text{corrective coefficient}) \times (\text{estimated theoretical teacher needs})$$

Synthesis of models related to supply and to demand

The forecast of the new teacher needs results from the addition of the results of the two models:

Annual change in (demand-related) teacher needs, i.e. the difference from one school year to the next in forecasted teacher numbers

+

Annual need for renewal of teacher workforce

The education system can provide different responses to the new need for teachers:

- partly by recruiting new teachers by category and by subject,
- partly by recruiting contract teachers, supply teachers or national service volunteers.

Choices depend directly on budget constraints. Nevertheless, the recruitment of contract teachers can also be considered as an adjustment made necessary by the gaps between forecasted needs and observed needs throughout the forecast period.

Moreover, the level set for the recruitment of civil servant staff is based on the number of places offered in the competitive examination. There is therefore a time gap in recruitments corresponding to the years of training. A difference can then arise with the observed needs and require as such an adjustment through the recourse to contract teachers.



Questions for consideration

- (1) What tools are used for forecasting teacher needs (software, tables, ...) in your country?
 - (2) How is the inventory of information on educational supply conducted?
 - Are the projections made compared to year n-1 or n?
 - Is it based on forms filled out by teachers?
 - At what level (local, national) are forecasts made?
 - Are local data cross-referenced with those on educational supply and demand at national level?
-

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