

Why and how to improve competence descriptions and evaluations in a statistical institute? Some experiences from Statistics Norway

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The production of official statistics is based on a diversity of skills and competences ranging from technical and practical skills to specialised skills in IT or mathematical statistics. However, we have not always been identifying and describing these competences in a systematic way. In a situation where we are facing both internal and external challenges we need to address this issue in order to ensure that we recruit the right people and that we provide targeted training. On the internal side we are facing new requirements linked to changing technology and working methods combined with a loss of experienced staff due to retirement in the coming years. The external challenges are linked to a situation where the persons we recruit have more diversified background and we are not sure that numeric skills always are at a sufficient level. We will also need to better specify the training and competences we expect from those recruited in order to handle the day to day operations of data collection, control, editing, documentation and dissemination. The paper will describe how Statistics Norway has been working on a framework for competence description, closely related to the present business model. Some experiences from competence mapping in practice will also be explained, and how training needs better can be identified.

1. Introduction

In today's rapidly changing world, it is difficult to predict what might happen next year, let alone several years in the future. But we must try to anticipate new developments and develop the strategies necessary to succeed. In 2007 Statistics Norway decided upon a strategy for human resources as a sub strategy of the overall strategy document "Strategy 2007". The main headlines of this strategy are:

- Forward-looking and transparent management
- Sharing knowledge
- High-quality on-the-job training
- An attractive employer
- Expertise development – a joint responsibility

This strategy is being implemented through different concrete actions in the annual work programmes, and is a backdrop for our work. In the next segment we will outline some of the challenges Statistics Norway is facing in the field of human resource management.

Demographic changes, particularly the aging of the workforce, present significant challenges. Recruiting, developing and retaining the best employees are a challenge for us. We also have to take into consideration changing and more efficient work processes and technology,

influencing the need for training and staff development. The role of management is closely linked to all this, and also their changing competencies and need for development must be taken into account when trying to prepare for the future.

2. Future competences

Above we have mentioned some future challenges for our organisation. Whenever these topics are discussed the question of what competences will be needed in the future arises, and that is not an easy question to answer. How do we define the skills, behaviours, and attitudes that workers need to perform their roles effectively?

It is crucial for the future development of our offices that these issues are discussed and that the development and recruitment supports the development in statistical production. One also needs systems and processes to back up these new changes. To be able to do this, it is important to know what we already have. A framework for competence description is – we believe – a useful tool both at present and in the future.

When talking about competences it is important to underline that we consider this to be more than formal training and can comprise the following:

- Knowledge (What you know, both tacit and explicit)
- Skills (How you do something)
- Abilities (Talent)
- Attitudes (Values)

Thus it is both technical, formal knowledge and ability for problem solving and social skills.

3. Towards a framework for competence description

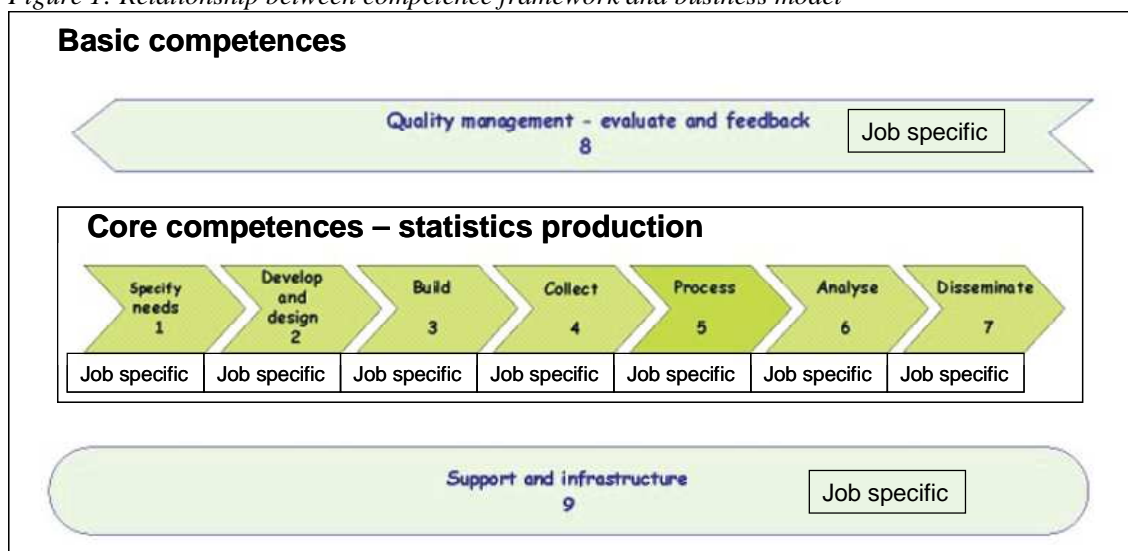
A framework for competence description defines the knowledge, skills and attributes needed within an organisation. Within Statistics Norway we established a project autumn 2007 with the aim of examining how we would benefit from implementing a systematic approach for describing competences. The project looked at both internal challenges and experiences other organisations and countries had on the topic (among others Statistics Denmark and Statistics Sweden). Based on external experiences and an internal review, the project concluded that we should develop a solution for mapping competences within Statistics Norway. The project also suggested a method for carrying out this mapping.

This conclusion was supported by internal discussions with the middle and top management that underlined that we need to have a more systematic overview of existing and needed skills and qualifications. However, it was necessary to develop the approach more in detail.

On the basis of brainstorming sessions and examples from other countries we drafted an overall framework as well as some main categories.

The framework distinguishes between three main types of competences: "basic competences", "core competences" and "job specific competences". The figure below shows how this links to Statistics Norway business model¹.

Figure 1: Relationship between competence framework and business model



Basic skills and competences are defined as those competences required of all employees in the organisation, regardless of role or business unit.

Some major categories are:

- Basic ICT skills (*use of windows tools, internal administrative tools, web....*)
- Statistics Norway and its role in society (*legal basis, strategy, management and planning, business model, international cooperation etc....*)
- Communication (*communication skills, good oral and written communication, oral and written ability to pass on information, language....*)
- Teamwork and sharing knowledge (*be able and willing to work together and share knowledge, independence...*)
- Creativity and result-orientation (*innovation skills, delivering results on time...*)

Core competences are linked to the primary task of statistics production and the major categories are:

- Knowledge of statistical principles and methods
- Numeric and analytical skills
- Understanding for the production process, routines and quality requirements

¹ Statistics Norway started early 2008 a programme for improving and standardisation of the statistical production system ('FOSS'). A key deliverable of this programme has been to specify, based on similar approaches in some other countries (such as Statistics New Zealand and Statistics Sweden), a detailed business process model. The model consists of 7 phases of the statistical business process and 2 over-arching processes. It describes the business processes in the statistical production on three levels. This model is intended to provide a basis for assessing the possibilities and the need for standardisation and improvement of processes within Statistics Norway.

- Orientation about social issues and the statistical needs of the society
- Abilities in using the relevant tools for treating statistical data

Job-specific or specialist competences are applied to specific roles, job groups and functions, especially within the field of methodological, ICT or administrative support, but might also be the case for specific tasks within the statistical production process. Although standardisation of the statistical process is something we are working for, there is still a need for job-specific or specialist competences.

In our framework we use a scale to measure competence levels. The benefit of such a scale is that it ‘forces’ those involved to perform an evaluation of level of competence, and that it is easier to aggregate and summarise information. On the other hand, it can be somewhat arbitrary and should be used with discretion, especially on an individual level. Our suggestion is a four level scale ranging from 1 (very low competence) to 4 (very high competence).

4. Implementation of the framework in practice

The framework can be used on different levels: from the individual level to the section level and perhaps even for the organisation as a whole. But the starting point is on the individual/group/section level.

It is important to emphasize that the framework first of all is a tool and basis for discussing and evaluating competences in a systematic way. The process itself in the groups/sections is very important. It can help in providing a common language when talking about competences in their section/group, and identify concrete actions. The process will also need follow up and be repeated, when necessary.

By implementing this framework we hope the sections/groups achieve the following objective:

- To discuss competences in a more systematic way
- To identify concrete requirements for further competence development
 - For the section as a whole, for the group or for each staff member
- To make an action plan for competence development and implement training measures
- To raise awareness among the employees concerning their own competences

Further we recommend the following practical implementation process:

1. Start the process with a discussion of the sections/groups future goals and challenges.
2. Have a discussion of current competences for the section/group (try to come to a consensus around maximum 18-20 areas in all).
3. Perform an individual self-assessment (anonymous) of target and present level in relation basic and possibly, core, competences. This self-assessment is registered and summarized as an input to the later discussion.
4. Based on the sections/groups prospective goals, perform a group discussion of status of the group in relation to core and basic competences as well as identifying relevant specialist competences, and assess target and present status for all these according the mentioned scale.

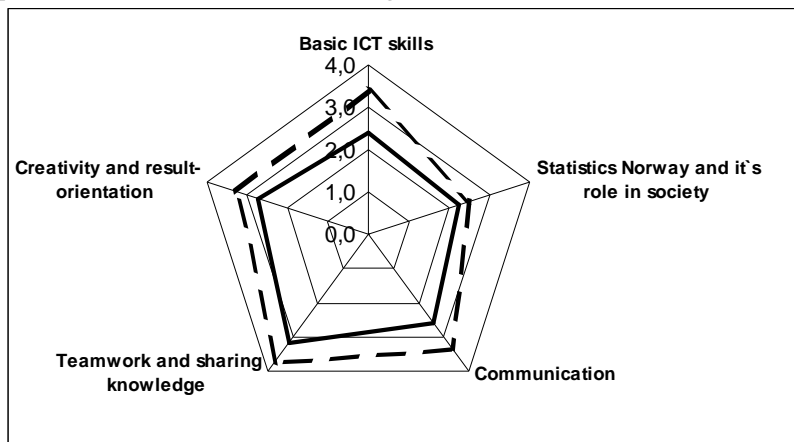
- Based on this process; identify the major gaps between target level and present level and discuss priorities. This should also result in an action plan on how to bridge the identified gaps.

In autumn 2009 we tested the drafted framework within two sections of Statistics Norway. The processes in these two sections were quite different. One section had a long and extensive process, with several gatherings over two-three months. The other section had a two-day seminar. Despite the differences in process the framework worked well in both sections.

To help in the process we have prepared an excel-file where sections/groups register the results and get a summary in the form of a spider's web diagram. This will give them a good visual summary and be of great help to better see where they are having competence gaps.

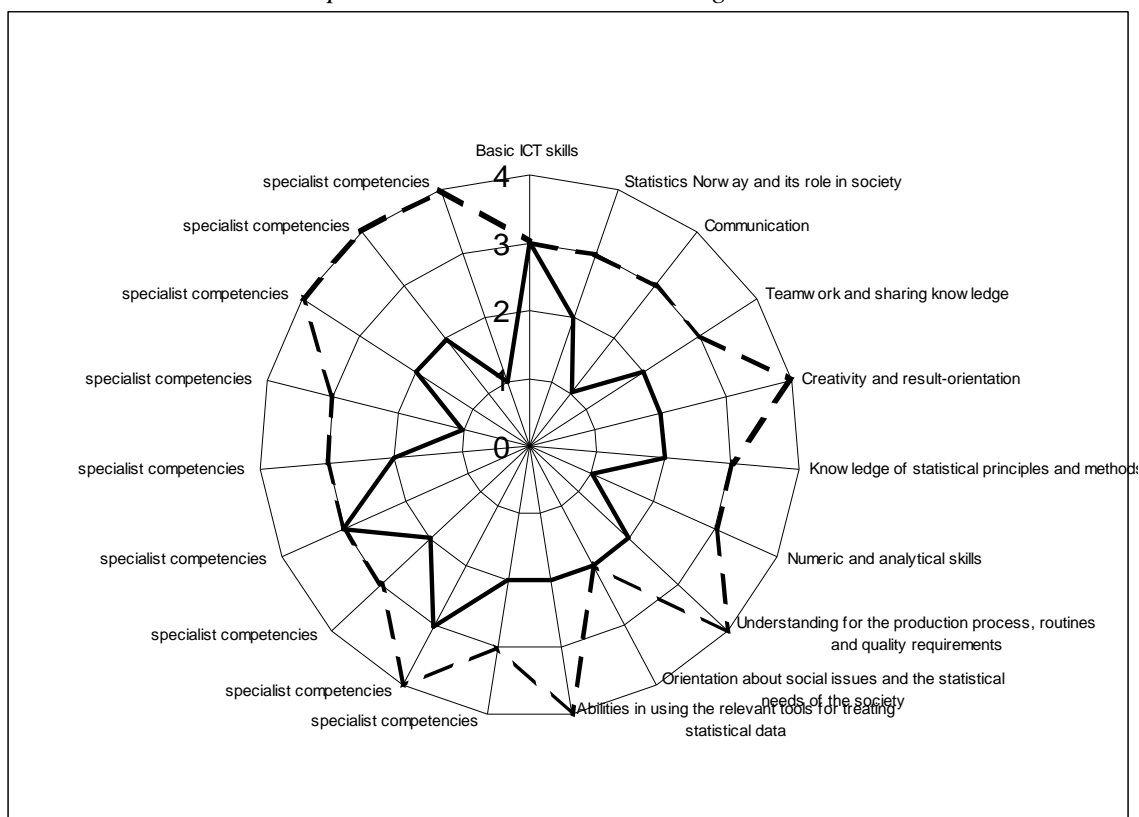
An example is provided in figure 2 which gives the average of individual assessments within one section concerning basic competences. Already this simple summary can give input to some reflection and possibly some actions; it is obvious that ICT skills should be improved, and this was followed up by more detailed mapping and workshops. It was also an interesting discussion whether the target concerning the knowledge of Statistics Norway and its role in society was too modest, which led to a modification of the target in group discussions.

Figure 2: Average of individual assessments of basic competences within a section. Solid line present level and dotted line target level.



A much more complex example is given in figure 3 which shows the results of an evaluation of a group within a section. This example also includes a slightly modified version of the core competences as well as number of specialist competences which are not named in this example. This example shows rather big gaps for some specialist competences but also some challenges related to some basic and core competences. This has been followed up through different actions.

Figure 3: Assessment of present and target competence level within a subject-matter group within a section. Solid line present level and dotted line target level.



After the pilots we made some small adjustments and then we presented our final framework for competence description to the top management. It was approved and we could start the process of providing this as a tool for all units, sections and employees. Our goal is that more or less all units in the organisation have been through the process by the end of 2011.

5. Experiences so far

Until now nine sections have been through the process. Some have “finished” and others have just started. Our experience so far is that the framework works very well as a tool and basis for discussing and evaluating competences. We have learned that it is important when planning the process with the section leader, that we take into consideration their special needs. Therefore the processes have been quite different from section to section. Some groups (or even individuals) might want to focus the discussion on the details of the different categories of competences. We allow some flexibility and adaptations, also related to core competences, but try to avoid too sophisticated discussions on this classification issue. We also underline that it is possible to make a more detailed mapping of the different categories, which also in practice has been done, for instance of the different tools within the field of ICT skills.

When the sections/groups are at the end of the process and are discussing their training needs, we ask them to consider different methods beyond traditional courses, for instance job-

rotation, internal workshops etc. Our experiences so far are general quite good, and there has been positive feedback from both leaders and employees.

A general observation is that the process appears to provide a better basis for follow up in appraisal interviews and the next step might be to introduce the framework in a more systematic way in the forms used for this interview. During the process we also hope to get more concrete input to the central training programme, where the input is sometimes missing.

6. Some concluding remarks

The production of official statistics has a long tradition based on well established practices and methods. Thus one might assume that future competence needs are more or less the same as in preceding years. And to some extent this is true; there are some basic numeric and analytical skills that will be prerequisites for the production of high-quality statistics also in the future.

There are a number of internal challenges such as staff turnover, changing technology and production routines. External challenges related to the recruitment of staff, relationship with external stakeholders and users, international cooperation etc. These challenges require a more conscious approach to competence requirements and competence development.

This situation requires a clear management strategy and a human resource function closely interacting with all parts of the organisation, ensuring that everybody has a high degree of consciousness about required and available skills and capacities. Also it is necessary to have tools to identify needs and gaps and mechanisms to fill the gaps. A mechanism to fill competence gaps is to benefit from international training and exchange of best practices – and staff.

The framework for competence evaluation presented seems to work quite well so far in Statistics Norway. Nevertheless, it needs to be adapted to different needs in different parts of the organisation. And it is necessary to see the discussion on competences in the production of statistics as a continuous process. We still have much to learn from international cooperation.