

Experiences from the participation-oriented Quality Audit System and its extension to the Training Programme in Statistical Skills of Statistics Finland

Piela, Pasi

Statistics Finland

FIN-00022 STATISTICS FINLAND

FINLAND

E-mail: pasi.piela@stat.fi

Besides external quality auditing and peer review activities that focus on particular statistical production processes or the organisation itself within the European Foundation for Quality Management framework (EFQM), Statistics Finland has developed and been using an internal quality audit system continuously since 2007 (Piela, P. 2009). It is based on a system used at Statistics Sweden (Eiderbrant-Nilsson, G. 2005). The main objectives of quality audits are to: evaluate and question ways of working, methods and techniques; identify and search for good practices; increase knowledge by bringing together experts from different parts of the organisation, and to introduce more discussion into the organisational culture. The latter objective is actually a very distinctive and relevant part of the system.

An audit is carried out by an audit team of three experts selected from a pool of voluntary auditors. The auditors are external in the sense that they do not have any direct connection with the production process in question and are not working at the same production department. The auditors must remain objective and independent to the highest possible extent. Voluntariness as a main risk factor is expected to guarantee an auditor's enthusiasm, motivation and willingness to learn (Piela, P. 2009).

Up to the end of 2010, 53 voluntary auditors have participated in 41 audits that have involved one or several similar statistics production processes. The audits have been seen as useful for the target production process teams but they have also been an important learning experience for the auditors themselves.

Training Programme in Statistical Skills

Statistics Finland has designed a Training Programme in Statistical Skills (TPSS) to better sustain the professional competence of its personnel in its pursuit to be a learning organisation (Mäkinen, R. 2010). The programme is divided into two parts: basic studies for all new recruits of Statistics Finland, and advanced studies. The aim of the advanced studies in the Training Programme is to provide the personnel with in-depth and extensive statistical professional skills. The learning objects of TPSS studies are based on *the Competence model of statistical work* (see Mäkinen, R. 2010). The model describes the statistical skills that are relevant for Statistics Finland.

The duration of the advanced studies is two academic years and their minimum extent is 322 hours. Similarly to the auditor recruitment, the target group for the advanced TPSS studies is experts working in the statistical departments.

The Training Programme contains both classroom lessons and distance learning. The classroom lessons make extensive use of group work and dialogue between students and trainers. The TPSS supports Statistics Finland's objective of promoting the sharing and transfer of knowledge from senior to more junior experts: the *trainers* are usually in-house experts of Statistics Finland.

As the learning contexts in the TPSS and in the quality audit system are very similar it was decided to connect them in such a way that, starting from 2011, one of the two annual rounds of audits would be conducted by TPSS students as their "practical work assignment".

There are four to six audits per one audit round, which requires 12-18 auditors. This corresponds to the number of TPSS students. More experienced auditors can be invited when needed.

Participative Quality Auditing

One audit involves three auditors and one to four, or even more, experts from the target production process. Thus, the total number of direct participants in the audits (41 audits up to the end of 2010) is very high and is, indeed, an example of how systems within quality management frameworks should be organised: people need to get involved and participate. Most of the auditors have been willing to participate in some later rounds of audits as well.

The auditors have been selected from the statistics production departments and supporting departments, such as IT and methodology experts. However, participation in the audit system is basically obligatory within the TPSS, although participation in the Programme itself is voluntary. The students are experts from different departments, which makes the organising of the auditor teams flexible.

The participation in audits can be seen as a useful way to learn about other statistics production processes besides the core task: to critically examine how these processes meet their requirements and recommendations, and what good practices there might be that would be suitable to implement in the area of the auditor's own work.

Operational structure of the auditing process in the Training Programme in Statistical Skills

i) The continuous audit activity has a steering group whose chairperson carries most of the workload. The audit activity is monitored by the directors of departments and certain internal working groups on quality. The statistics production processes to be audited are selected by the Board of Directors after discussions with the management teams of the production departments.

ii) An audit team may flexibly adjust its auditing timetable even within a three-month period (Piela, P. 2009). The auditing period in the TPSS comprises a training seminar, an intermediate seminar and a final seminar. In the intermediate seminar the auditors present and discuss their experiences so far. In the final seminar the auditors present the audit report with an evaluation, development proposals and good practices.

iii) After the work of the steering group and the TPSS administration the auditors contact the person in charge of the statistics production process concerned in order to agree on a preliminary schedule (see Figure 1).

iv) The actual audit starts with a self-assessment based solely on *an extensive Internet questionnaire* of some 138 questions, most of them answerable with Yes or No (or Fully met, Partly met, Not met at all), but with optional comments. The questionnaire has been carefully designed as well as discussed throughout the organisation. From the technical point of view, it does not require answering all the questions at the same session, and an unfinished questionnaire can be forwarded to a colleague.

The production team fills in the form and collects the relevant *documentation* for the audit team.

v) The audit team receives copies of the form and familiarises itself with the statistics to be audited.

vi) The first meeting between the audit team and the production team consists of intensive interviewing focused on the topics covered in the questionnaire and any other issues of concern to the audit team.

vii) After the first audit meeting, or two audit meetings if needed, the audit team discusses and drafts the first version of the audit report and sends it to the production team for comments.

viii) The consensus meeting between the audit team and the production team consists of more interviews. At this meeting the auditors and the production team agree on development proposals, good practices and other evaluations.

ix) The audit team finalises the audit report and then asks for comments from the production team (factual comments on the text itself).

x) The audit team presents the report at the final seminar of the TPSS. The advanced studies end soon after the final seminar and the writing of a final essay as "the final assignment": an essay on the student's own TPSS studies and an essay on e.g. "Statistics Finland's objectives of the core processes and promoting

