Appendix 4 - Description of today's process for tests and examinations

The illustration describes in general terms the process for developing and conducting tests and examination.

Examination

Developing examination materials

The process of developing examination questions begins around a year before the examination is due to be held. The examination committee is working on one or more documents. The first draft is ready some six months before the examination date. Once the examination committee has completed the draft examination paper it is passed on to the customer's subject co-ordinator, who then quality-assures it and submits it to external experts, e.g. for proofreading, calculation checks and subject revision. The committee then reviews the examination paper based on the feedback.

Compiling the examination

Once the committee has finalised the examination paper, it is quality-assured by the subject co-ordinator and sent for translation. After translation the committee checks that the translation is correct. Finally, the co-ordinator for distributing examination papers checks all documents and sends the papers to be printed.

The examination papers are then printed in the required numbers and distributed to the schools based on the number of candidate registrations in the different subjects. The papers are also uploaded to a digital distribution solution for examination papers which allows candidates to log in and download a PDF.

Creating an event

The examination panel sets a date for the examination based on the school calendar. Examination schedules for the primary and secondary stages are published at udir.no and in "PAS–eksamen". Examination guidelines are published at udir.no well before the examination date. Guidance for examinations is also published for some subjects on the day of the examination.

Administration

Schools receive the printed examination papers around two weeks before the examination date. The head teacher is responsible for receiving the package and must store the examination documents securely locked up. The head teacher is asked to open the package to verify that it contains the correct number of examination papers in the correct language form.

On the day of the examination the candidate or the school are free to use the printed examination paper or have the candidate download the paper in PDF format. The candidate gives their answers on paper or in a programme suited to the paper in question, e.g. a word processor.

They may submit their answers by handing in the paper copy or uploading their digital answers. Examinations in science and social economics comprise two parts, one of which to be answered without the use of support tools, and one where the candidates may use support tools (except communication).

Examiners (assessment)
Once the candidates have completed the examination, their papers are submitted to the examiners, each of whom will receive between 100 and 200 examination papers. Each paper is graded by two examiners. The examiners must grade the papers and record their proposed marks before the joint assessment, where all examiners take part. They are divided into pairs with their co- examiners. The pairs then review each examination paper together and agree on a final grade. If they fail to reach an agreement, the paper is passed on to an adjudicator, who then determines the final mark.

Processing the examination results
The examiners answer a questionnaire about the examination and their examiners training. In some subjects an IRT analysis is carried out of the examiners assessment forms. Some subjects are under evaluation with regard to issues such as unrestricted internet access during the examination. The subject co-ordinators evaluate the results and the joint assessment. The examination committee prepares examination reports in some subjects.

Publishing the examination results
Examination results are published immediately after the joint assessment. Pupils are notified of their examination results by their school. Reports on the spring examination are published at udir.no in autumn. Evaluations of any new examination arrangements are published at udir.no. Statistics on the examination are published at udir.no in autumn.

Digital testing

Developing test tasks
Subject specialists write the test tasks. They use an authoring tool for writing test tasks before entering information about how it should be marked, adding relevant metadata such as categories etc. It takes around two years to develop a test.

Compiling the test
Once the questions have been completed, the subject specialists will compile the tasks into sets. Next, they compile one or more sets into a test. The tasks are set in the order they will be presented to the pupils. Various quality assurance checks are performed during this phase, including by an external quality control.

Creating an event
While the taks are being written, the customer creates the event with which the test is associated in the admin system. The event contains information about scheduling, marking and registration, amongst other things. The event is published at a scheduled date. Once published, schools may register pupils for the test.

Administration
When sitting a test, the pupils log into elev.udir.no and complete the tasks using the permitted support tools. Teachers and supervisors invigilates the tests.

Marking

Once the pupil has completed the test, the system consolidates all the answers into a final submission. Tests using automated marking are marked automatically, while the remaining tests must be marked by a teacher.

Processing the test results

Once the test has been completed, it triggers the last two steps of the process: processing and publishing the results. The answers are analysed using a range of tools with various purposes. Analyses of the answers provide feedback to the question setters (subject specialists) on the quality of their questions. A number of analysis are also carried out for various purposes, including results that will be made available to the school, for the customer's statistics, or for Statistics Norway.

Publishing the results

Once the answers have been assessed and processed, the results are made available to the users:

- Subject specialists
- The authorities
- The public
- Researchers

Paper tests (mapping tests in reading and numeracy in Years 1–3)

Developing test questions

The mapping tests on paper are written in a word processor or similar without system support. Trials are done on paper. The tests were developed in 2013 and have not changed since then. It takes around one year to develop a test.

Compiling the test

The customer's testing team quality-assures the test and submits it for external quality control. This is done only in the year when the test is produced.

Questions and thresholds may be adjusted the following year (following an analysis of last year's test).

The test team sends the test for printing, and the papers are distributed to all schools.

Creating an event

The test team sets a date for the test based on the school calendar and the age group for which the test is designed. In addition to the mandatory mapping tests, there are also voluntary mapping tests in numeracy for Years 1 and 3 that schools can order at udir.no.

Administration

The schools conduct the test on paper.

Assessment

All test replies are marked by teachers. The tests are subject to predefined warning thresholds that the teacher should use when assessing the answers. This provides the teacher with instant feedback.

Processing the test results

Once the pupils have completed a test, some schools return the test answers to the relevant subject specialists, who in turn evaluate and record the answers in a digital format to allow them to analyse them.

The subject specialists then determine whether the warning thresholds are still appropriate.

The tests are trialled before they are distributed, so the test results are not processed to any significant degree.

Publishing the results

Results from the mapping tests are not published centrally.