Appendix 2 - The needs for tests and examinations

The needs have been grouped into categories and numbered to facilitate the work with them. They have not been sorted in order of priority.

The need to ensure that all pupils receive follow-up

The basic skills are part of the competence in the subjects and are necessary tools for learning and development. The customer finds it important that the school maps these skills at an early stage to detect those pupils who need extra help and support. The customer also finds it important that the pupils' development in these basic skills is followed up in all years of primary and secondary education. All pupils must have the same opportunity to develop their skills and achieve a satisfactory level of attainment in basic skills before leaving school.

B01	Mapping	The customer shall assist the schools to detect the pupils who need extra help and support.
B02	Assess skills	The customer needs to measure the skills of the pupils in the categories of numeracy, writing, reading, listening and speaking.
B03	Adaptivity/ differentiation	The customer considers adaptive tests as one of the more effective measures for increasing the pupils' sense of mastering. The customer wants to test how adaptivity can be used in tests and examinations.
B04	Age range	The customer administers tests and examinations for a broad age range, and therefore needs tools that can test the competence (skills and knowledge) of pupils and candidates from 5 to 19 years of age.

The need to document competence

The customer shall ensure that the pupils and candidates acquire documented competence after completing lower and upper secondary education and training so they can start further education or follow a vocational path, both nationally and internationally. For external candidates, examinations make it possible to acquire documented competence without taking part in ordinary schooling. To ensure fair final assessment it is vital that the pupils and candidates are given the opportunity to show their competence in an examination. It is also important to take the subject's special nature into account in the assessment.

B05	Showing compe-tence on the examination	The customer shall give the pupils and candidates the opportunity to show their competence in accordance with the subject curricula.
B06	Final assessment	The customer shall set examination grades that give information about the candidate's individual competence in the subject, as expressed on the day of the examination.
B07	Case	It must be possible for the customer to develop case tasks, for example to enable: • the measuring of competence with a high degree of goal attainment (such as reflecting, discussing, applying) • the measuring of situational-intense subjects (vocational subjects) Case tasks are often used in combination with other task types. Some case tasks have attachments in special formats, A3, brochures, manuals.

| B08 | The nature of the subjects | The customer shall take the nature of the subjects into consideration.

This can be done when the solution provides special tasks or gives the pupils easy access to external tools, such as a calculator, dictionaries, encyclopaedias (e.g. SNL), Mat-type, tools for entering chemical symbols, Geogebra, Chem-sketch, programming languages, CAS, spreadsheets or LaTeX support.

Examinations in foreign languages require tasks in many different written languages and must also support writing from the right to the left. |
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The need for high level of quality in schools

The customer finds it important that schools in Norway maintain a high level of quality. To ensure this the customer shall offer support tools that can constitute the basis for quality development in the school system.

B09	Quality development	The customer shall build the foundation for formative assessment and quality development at all levels within the school system.
B10	Basic skills	The customer shall assist the schools with test results about pupils' basic skills.
B11	Learning support	The customer shall offer tools to schools for formative assessment and give the teacher the foundation for providing feedback that promotes learning and provides feedforward to pupils at all levels.
B12	Grade support	The customer shall offer tools to schools (such as tests in natural science and social studies) that will support formative assessment and contribute to seeing formative and summative assessment in connection with each other.

The need to comply with legislative requirements

The customer shall comply at all time with the legislation in force, including Chapters 2 and 3 of the Regulations relating to the Education Act, which deal with individual assessment. For examinations and testing it is also important to consider the Archives Act, the Gender Equality Act, the GDPR (General Data Protection Regulations), the Anti-discrimination Act and the Universal Design Regulations.

B13	Accessibility	The customer shall ensure that the content of tests, examinations and reports are designed in such a way that they can be used by as many people as possible without the need for differentiation or special design. Mapping functionality must be available to all pupils.
B14	Languages	The customer shall make all tasks in the language forms Norwegian *bokmål* (BM), *nynorsk* (NN), sign language and the three Sami languages: nordsamisk (North Sami), lulesamisk (Lule Sami) and sørsamisk (South Sami).
B15	Archiving	It must be possible for the customer to archive, preserve and delete data about tests and examinations.

The need for a quality-assured process

Good processes for task development, quality assurance and implementation of examinations and tests will contribute to high quality and continuous improvement over time.

B16	Assessment criteria	It is important that assessment criteria are developed for the tasks. The customer must be able to make these available to candidates, markers/teachers and examiners.
B17	Quality assurance	It is important that tasks/tests/examinations are quality assured. This can be carried out by external quality assurance experts (language, politics, subject, psychometrics) who comment on the tasks, or through piloting tests or examinations.
B18	Proctoring	Tests and examinations must be supervised and monitored by schools, teachers and examination invigilators.
B19	Continuous improvement	Tests and examinations shall be improved on an on-going basis.

The need for good systems

It is important that the customer's systems function in accordance with the intentions and purposes, and that the tools placed at the disposal of the users by the customer are intuitive and easy to use for all user groups. It is also important for the customer to have a holistic system portfolio. Furthermore, that the individual systems are integrated with each other and that overlapping of functionality is avoided.

B20	Intuitive for test writers	The customer has many test writers and must therefore provide tools for task development that are intuitive and easy to use.
B21	Scoring	Up to 75 000 pupils and candidates will sit for each of the customer's examinations or tests. Therefore, the automatic scoring of tasks is necessary, along with highly efficient and intuitive tools for manual scoring.
B22	The subject curriculum	The customer must ensure there is a clear link between what is measured in tests and examinations and the curriculum.
B23	Integrations	It is important that the solution can be integrated with existing management systems, and that the new system fits into the existing system portfolio. It is also necessary that the integrations are based on international standards.
B24	Technical availability	It must be possible to sit for examinations and tests at the planned time. A breakdown of the external infrastructure could occur.
B25	Access to technical aids / support	The customer must control access to technical aids. Examples could be but are not restricted to calculators, the internet and other third-part tools.
B26	Export	The customer intends to share data from tests and examinations with other actors, such as, media, academic experts, different governmental institutions and researchers.
B27	Multimedia	Multimedia shall be available in tasks development because we test pupils who are unable to read, and because the nature of some subjects requires this.
B28	Independence on equipment	The customer cannot set unreasonable demands on schools with respect to purchases and updates. It must therefore be possible to take tests and examinations with the equipment that is already found at the school.

B29	Simultaneous users	All candidates in a subject sit for the examination on the same day, and all the pupils in a year group might take the test at the same time. Examinations and tests can be given at the same time.
B30	Information security	Information must never be disclosed to third parties (confidentiality), must not be changed by accident or by third parties (integrity) and must be available on demand (availability).