

Curriculum for the elective subject of Research in Practice

Dette er en oversettelse av den fastsatte læreplanteksten. Læreplanen er fastsatt på Bokmål

Laid down as a regulation by the Ministry of Education and Research on 8 June 2012.

Valid from 01.08.2012

Valid to 31.07.2020



Utdannings-
direktoratet

Purpose

Elective subjects shall help pupils develop a desire to learn and experience a sense of mastery, individually and as a group, through practical and varied work. Elective subjects are interdisciplinary subjects that contribute to comprehensive and contextual learning.

Research deals with gaining new knowledge and insight. Statements such as "research shows that" or "scientific studies have shown that" are often heard, proving that we rely greatly on research. Research shall also be critical, in the sense that it must retest previous results from research to confirm whether the results are correct, and to contribute to scientific debate. Experience with experimentation can therefore form the basis for one's own opinions and critical thinking and provide pupils with greater opportunities to participate in debates about research in a suitable and objective manner.

Learning in the elective subject of Research in Practice shall help pupils gain experience in the scientific method and scientific working methods. The elective subject shall stimulate a sense of wonder, inspire interest to test solutions and develop the ability to always ask new questions. Learning in the subject shall help pupils find explanations about observations and help pupils learn to verify whether explanations given by source materials, experimentation and observations are correct or not based on a critical approach to such knowledge.

The elective subject of Research in Practice will challenge the pupils to investigate current questions related to nature, the environment and the climate as well as culture, social life and working life. This involves finding problems the pupils wish to investigate and evaluating the many possible explanations and planning and carrying out investigations and using equipment and techniques to gather data and work with such data – eventually evaluating and communicating one's results. In this way the elective subject will contribute to learning by offering experience and skills in the practical aspects of research. The elective subject aims to stimulate curiosity and the use of imagination to find explanations. It also contributes to insight into how established knowledge and other research can be used in one's own investigations. Learning in the subject shall allow the pupils to experience just how providing and accepting feedback during an investigative process can improve the quality of results.

The elective subject takes its main elements from the subjects Natural Science, Mathematics and Social Science, but topics can also come from the other subjects from lower secondary school.

Main subject areas

The elective subject is structured in two main subject areas. The main subject areas complement each other, and should be viewed in relation to one another.

Overview of the main subject areas:

Main subject areas	
Idea generation	Practical investigation

Idea generation

The main subject area covers the creative aspects included in all stages of the research process. The point of departure will be a problem the pupil wonders about and wants to find the answer to. It also covers formulating good research questions, gaining input from others, reformulating one's questions in light of new information, and planning investigations. In this main subject area the pupils shall develop the ability to formulate hypothesis, gather other relevant data and compare and discuss ideas with other pupils.

Practical investigation

The main subject area covers working with different processes and practical execution of planned investigations. It is important for the pupils to learn how to test results, use different methods and learn to use different kinds of equipment and gather and systemise data. In addition to this, the pupils shall learn to test interpretations and compare their own findings with those of others, as well as communicating their results.

Teaching hours

The elective subject of Research in Practice: 57 teaching hours per year

Teaching hours are given in 60-minute units.

Basic skills

Basic skills are integrated into the competence aims for the subject, based on the specific needs of that subject.

Competence aims

Research in Practice

Idea generation

The aims of the studies are to enable pupils to

- find problems, formulate researchable questions and offer recommended hypotheses
- plan investigations based on one's own research or group research and hypotheses
- participate in discussions about one's own research and the research of others
- provide arguments for one's own hypotheses in light of findings and other relevant investigations and studies

Practical investigation

The aims of the studies are to enable pupils to

- carry out planned investigations and make relevant adjustments along the way
- use relevant methods and equipment to gather and analyse data
- demonstrate and explain methods, use of equipment and procedures for gathering data in finished research projects
- systemise data so that patterns can be easily seen and evaluate uncertainties
- communicate the results from one's own projects

Assessment

Provisions for final assessment:

Overall achievement mark

Year level	Provisions
10th year level or the year in which the subject is completed	The pupils shall receive an overall achievement mark

Examination for pupils

Year level	Provisions
10th year level or the year in which the subject is completed	There is no examination in the subject

Examination for external candidates

Year level	Provisions
10th year level or the year in which the subject is completed	There are no arrangements for participation by external candidates in the subject

The general provisions on assessment have been laid down in the Regulations relating to the Norwegian Education Act.