

Case study 7:

Physical education (PE) – Maps

School	Primary school, Årnes, Norway
Teacher	Mona Sannerud Moe
Grade	Grade 7, the pupils are 12 – 13 years old
Pupils	28 pupils, 2 with an immigrant background, the rest are Norwegian
Subject and topic	Physical education - Maps
Number of lessons	6-8 lessons (each lesson is 45 minutes)

Main teaching and learning goals

From the Norwegian curriculum

Oral skills in physical education involve creating meaning through listening, speaking and exchanging information. It means that pupils can convey impressions and experiences from different activities. Pupils and teachers express themselves verbally by describing rules for matches, games and other types of interaction. It also means that pupils can listen to others and give feedback, while they, at the same time, are aware of the listener when they talk. The ability to communicate verbally is also necessary when organizing activities.

To read in physical education involves retrieving, interpreting and understanding information from subject-specific texts. It provides the basis for evaluating important aspects of the work in the subject. Reading is also about interpreting maps and understanding symbols.

Subject goals

- to navigate in the schoolyard and the school's neighbourhood by map
- to understand the 10-15 most well-known map symbols in the map used
- be able to make decisions about position in the three-dimensional reality from information presented in the two-dimensional representation on the map
- to connect information in the two-dimensional map with the three-dimensional reality
- to find roads, paths and other navigation lines using a map

Language goals

- to read, analyse and interpret the map of the schoolyard and the surrounding area
- to decode, understand and actively use the 10-15 most well-known map symbols on the map they are using
- to communicate their own position based on the information the map provides
- to communicate with a classmate from one position to another based on the information the map provides

Teaching methods and activities

The pupils

- draw a three-dimensional map of the school area
- draw a two-dimensional map of the school area from a bird's-eye view
- get to know the local area around the school through the printed orienteering-map by talking about what it is possible to see on the map
- do a Memory game (in pairs), matching map signs with short descriptions of the signs.
- conduct star orienteering (in pairs). The control points are placed close to known map signs. The pupils must be able to communicate to the teacher where the control points were located referring to signs on their map.
- use star orienteering as a starting point when students set control points for each other. The pupils should be able to communicate to the others the position of the control points referring to the map.
- do star orienteering individually. The records are placed near map signs they know. The pupils must be able to refer to the map and communicate to the teacher where the control points were found.
- do an orienteering course with ten control points (1 – 10) in pairs. The control points are placed near map signs the pupils are expected to know.

Assessment

- A short test checking the understanding of map signs
- After the pupils do star orienteering individually, the teacher and the pupil assess (together) to what extent the student was able to navigate using the map and the signs.
- The pupils write individual logs after finishing orienteering course with ten control points.

Assessment

- Bjerva, T., Græsli, J. A., Sigurdjonsson, T. (2011). Barns kommunikasjon med ulike typer kart - en progressiv tilnærming til kartlesing (Children's communication using different types of maps – a progressive approach). In *Acta Didactica Vol. 5 (1)*.
<https://www.journals.uio.no/index.php/adno/article/view/1066>
- [http://www.o-skolen.no/ Norges orienteringsforbund](http://www.o-skolen.no/Norges_orienteringsforbund) (The Norwegian orientation association)

Comments

In these PE lessons, the pupils have to read a map and use the same map as a basis for communication with the teacher and classmates. The activity involves knowledge building (understanding and using a map) as well as communicating their own position in the area, using the information the map provides. Since the pupils cannot see each other, one would expect that they exchange specific and to some extent, detailed information about where they are located.

According to the Language descriptors (Tool 1 - <https://www.ecml.at/ECML-Programme/Programme2012-2015/LanguageDescriptors/tabid/1800/Default.aspx>) pupils at the age of 12- 13 are expected to be able to communicate at B1 level. The following descriptors seem to indicate what the pupils need to do during these PE lessons:

- B1: can follow straightforward instructions and directions from teachers and peers on how to solve a task. (*Understand instructions and directions*)
- B1: can understand specific information and identify facts from tables, graphs, maps and charts. (*Read and analyse graphically represented information in tables, graphs, maps, charts, symbols, as well as photographs, paintings and drawings*)
- B1: can check that the teacher and classmates understand what s/he is saying or that s/he has understood someone correctly and explain why s/he does not understand. Can make her-/himself understood by the teacher and classmates in most situations. (*Make oneself understood and clear up misunderstandings/misconceptions*)

In these PE lessons, the pupils work with the map of an area they know well (in the neighbourhood of their school). This means that they to some extent are able to draw on this knowledge. For instance, a pupil gave this information to his classmate: "I am at the crossroads in the northernmost corner of the map, just by Mr. Olsen's field." Another pupil said: "I am at the playground around 100 metres west of the school." In this way, the pupils use both their background knowledge of the area and growing map-reading skills to communicate their position. When they are more skilled, they will probably try to find their way in an area, which is more unfamiliar. They will then have to be more precise and specific as they communicate and interpret their own and others' position. At this stage, they may need language skills approaching B2.

Self-assessment

Pupil:

Grade 7 Home economics

GROUP ASSESSMENT			
1. What do we as a group know about Sami food and food traditions?			
2. What is meant by these words and phrases? - finnbiff - natural household -			
How did the group manage these tasks? Tick off.	We did not manage this (help from the teacher necessary)	We managed quite well	We managed this well
3. Divide the tasks between us			
4. Cook and use the correct measures			
5. Cooperate with each other			
6. Instruct and give clear messages to each other			
7. Listen to the others, take messages and act on them			

SELF ASSESSMENT AND SUMMING UP
1. Which tasks did you complete in a satisfactory way?
2. Give some examples of how you cooperated with the others in a constructive way.
3. Describe how you cook “finnbiff”.
4. If you had to repeat the cooking exercise, is there anything you would do differently? Why?