The curriculum in reverse – from the task to the school subjects

Practical tasks in school lessons

Many teachers find it difficult to use practical tasks as the basis for school lessons. Schools usually have good classrooms, but poor access to practical learning areas. If schools have access to practical tasks, the teachers struggle to justify how the activities can lead to fulfilment of the curriculum goals. Going from the task into the curriculum can be the solution – curriculum in reverse!

Curriculum work in reverse

Planning lessons is usually done by taking the point of departure in the curriculum goals in each subject.

Curriculum work in reverse takes the point of departure in the practical activity. For example, making a raised growing bed in the school garden enables analysis of the knowledge, skills and character traits needed to make a good raised bed.

![FIELD TO SCHOOL]

Dividing the task in steps

The first part of the analysis is done by dividing the task into steps, such as a task in the school garden or neighbouring farm, for example:

- Find the tools and materials
- Build a sowing box
- Build a frame for a bed
- Spread the soil evenly for sowing

Transferable traits and skills

- The goals found in the curriculum are most often cognitive. However, each step in a practical task, for instance spreading the soil evenly in a sow bed, demands also transferable human traits and skills:

  - Endurance
  - Coordination and motor skills
  - Accuracy
  - Ability to work together

Specific skills and expertise

Specific skills are connected to an activity, such as harvesting tomatoes with a special colour indicating that they will ripen on the way to the market.

A practical task can also demand special expertise, for example sowing seeds in a bed. It needs knowledge of the plants requirements, of the soil quality, and knowledge in mathematics to find the exact amount of seeds according to the area to be sown, the space between the plants and the percentage of germination.

Analysis of the prerequisites for the practical task

Execution of each step in a task demands transmittable traits and skills, but also specific skills and knowledge/expertise in the subject matter of the specific activity.

If these conditions are fulfilled, successful completion of the task can be achieved. Mapping of the requirements for each step can be done through an analysis of the prerequisites by the teacher, together with the students (table in the next slide).

Analysis – done for "Build a box for sowing"

Description of activity in each step	Transmittable skills and traits	Task specific knowledge and skills
Find the tools	Patience Perseverance	Knowledge of where the tools are stored and what tools are needed
Build the box	Interpret the drawing and measurements Choose materials and dementions and handle the tools Use the materials effectively Patience balanced with effectivity Endurance Accuracy	Follow and use the construction drawing. Choose materials suited to stability, weight, available space and volumn needed. Adjust the construction to the age and capabilities of the users.

Learning goals and curriculum goals

The goals for what students should learn can be taken from the analysis of prerequsites for the task, which in turn come from the demands for fulfilling the task.

Most learning goals can be connected to goals in the curriculum. Difficulties in connecting to the curriculum can be solved by exploring different subjects in the curriculum. The planning always begins with the activity and ends with the curriculum.

Why begin with an activity/task?

People are motivated and engaged through connecting to a physical world; often to other people; to animals; to an activity or a practical task.

Connecting awakens the will to take care of that to which you are connected and concerned with. And, at the end, curiosity and inquisitiveness to take responsibility and change for the better.

Steps of Human Growth and Learning

Connecting: place, activities, other humans

⬇

Caring: I **care** for what I connect with

⬇

Directing: I **will** act and learn about what I care for

⬇

Transforming: I and we **can** and will **create** and **change**