

A computer-based learning environment for students at the 3rd and 4th grade level

Introduction

Computer Science has been taking over our daily life in every aspect. With this also the need of the ability to understand how Computers work and think increased enormously. To satisfy this need in the long term Computer Science was included in the Swiss curriculum with the Lehrplan 21.

The goal of the Lehrplan 21 is to teach the students the basic concepts of Computer Science and give them the ability to use those concepts for problem solving. Therefore the main goal here is to implement tasks in a computer-based learning environment that teach a chosen subset of those concepts.

Goal of this thesis

This thesis should implement chosen tasks and riddles from “einfach INFORMATIK 3/4” about:

- representing information with symbols,
- protecting data and keeping information secret and
- learning from data

at 3rd and 4th grade level.

Along with solving tasks and riddles about the mentioned topics the ability of reading, writing, counting and calculating is trained as well.