



GUIDA AD UNA SANA ALIMENTAZIONE

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How were the Design Principles applied

Design principles	Implementation in the case
DP1: Organizing activities around shared objects	Two object realized, <u>Questionnaire</u> and <u>Video Guide</u> , have been identified and shared with students and teachers through a <u>Brainstorming</u> . Students, starting from word «feed» and looking to the Object «Guide to Healthy Food as», have been driven in the identification of <u>areas of investigation</u> related to the first object "Questionnaire". Second Object (Video Guide) have been identified only after realizing the "Questionnaire" and having analyzed data of the survey conducted in all classes of the institute.
DP2: Supporting integration of personal and collective agency and work	Preliminary activity: Identification of phases and sub-phases. Phase1: <u>Questionnaire</u> . 5 areas of investigation have been identified: <u>breakfast</u> , <u>snack</u> , <u>lunch</u> , <u>afternoon snack</u> and <u>dinner</u> ; each of them have been assigned to one <u>group of work</u> composed of 3-4 students. Questions about each area of investigation have been prepared in compliance a scheme previously agreed. Group of work have been often modified to harmonize questions and recompose the questionnaire. Phase2: Management and implementation of the <u>statistical survey</u> . Creation of spreadsheets for data collection and for frequencies calculation. Some group of work, made up of pairs of students, took care of <u>data entry</u> . Others students have become specialists in creating graphics and have assumed the role of "expert graphic" in the various groups. Phase 3: <u>Analysis and data processing</u> ; identification of "object-guide" The group of work were disassembling and reassembling in order to obtain a uniform representation of the survey results. Phase 4: <u>Implementation of the video</u> . An adapted version of <u>Jigsaw</u> has been used to disassemble and reassemble the groups in order to produce five <u>short films</u> ("Physical activity and weight control", "More cereals, legumes, vegetables and fruits", "Fat : few but good" "Sugary drinks and sweets ... within just limits", "A lot of water and a little salt") based on the <u>results of the survey</u> and on a depth study of discipline.
DP3: Emphasizing development and creativity through knowledge transformations and reflection	<u>Questionnaire revision</u> through a <u>self-test phase</u> ; it was done before administration in all classes of the institute; students modified in some parts the questionnaire in order to make clearer filling activities. <u>After data entry</u> activity it was noted that questionnaire was <u>very long and complex</u> for data analysis; in this way it was found that the questionnaire should have been further modified. <u>Revision of video</u> , made by the students and teachers, helped students to <u>reflect on the work done</u> and allowed them to <u>identify errors</u> ; some errors have been eliminated during video review activities, others can be avoided in a subsequent applications.
DP4: Fostering long-term processes of knowledge advancement	<u>Implementation of a statistical survey</u> in all its phases led students to think about the <u>real complexity</u> of this task; to think about the <u>information needed</u> , and especially to think about the importance of a <u>testing phase</u> before the distribution of a product. Also the creation of the video led students to read up on the topics to be covered.
DP5: Promoting cross-fertilization of knowledge practices and artifacts across communities	Production of short films, almost entirely <u>managed by the students</u> , starting from the script and stage design, the choice of music, images etc., <u>led the students to a high degree of autonomy</u> , and also the acquisition of <u>high communication skills</u> . Survey results could be compared with a new survey or with existing data. <u>Videos produced</u> , highlighting good and bad eating habits, after collaboration with external experts (nutritionists, psychologists, ...) <u>could be disclosed at institutional level</u> .
DP6: Providing flexible tools for developing artifacts and practices	Interactive Multimedia Witheboard: used for brainstorming activities, production of diagrams and tables, presentation of activities to the entire class and to group of work; this tool has been used both from teachers and from "more experienced students". Laptop connected to the Internet: Internet searches, use of application software. Spreadsheet: Data entry and processing, graphics building. Word processor: compilation logbook, drafting of texts and final reports in a survey. Software for slide processing: presentation of the results and final object. Mail list: notifications and communications between the students and teachers. Google account and Drive: sharing works, exchanging material, feedback. Facebook: fast communications. Smartphone: production of short films. Movie maker: management, editing, images and video processing.

Information about the context

School I.I.S.S. "G. Salvemini"
City Fasano (BR) Country Italy

The educational problem The class that took part in the project was a first and second-year class made up of 16 students of Vocational Education and Training for Cooks and Hotel Managers

Topic *Guide to Healthy Food as*

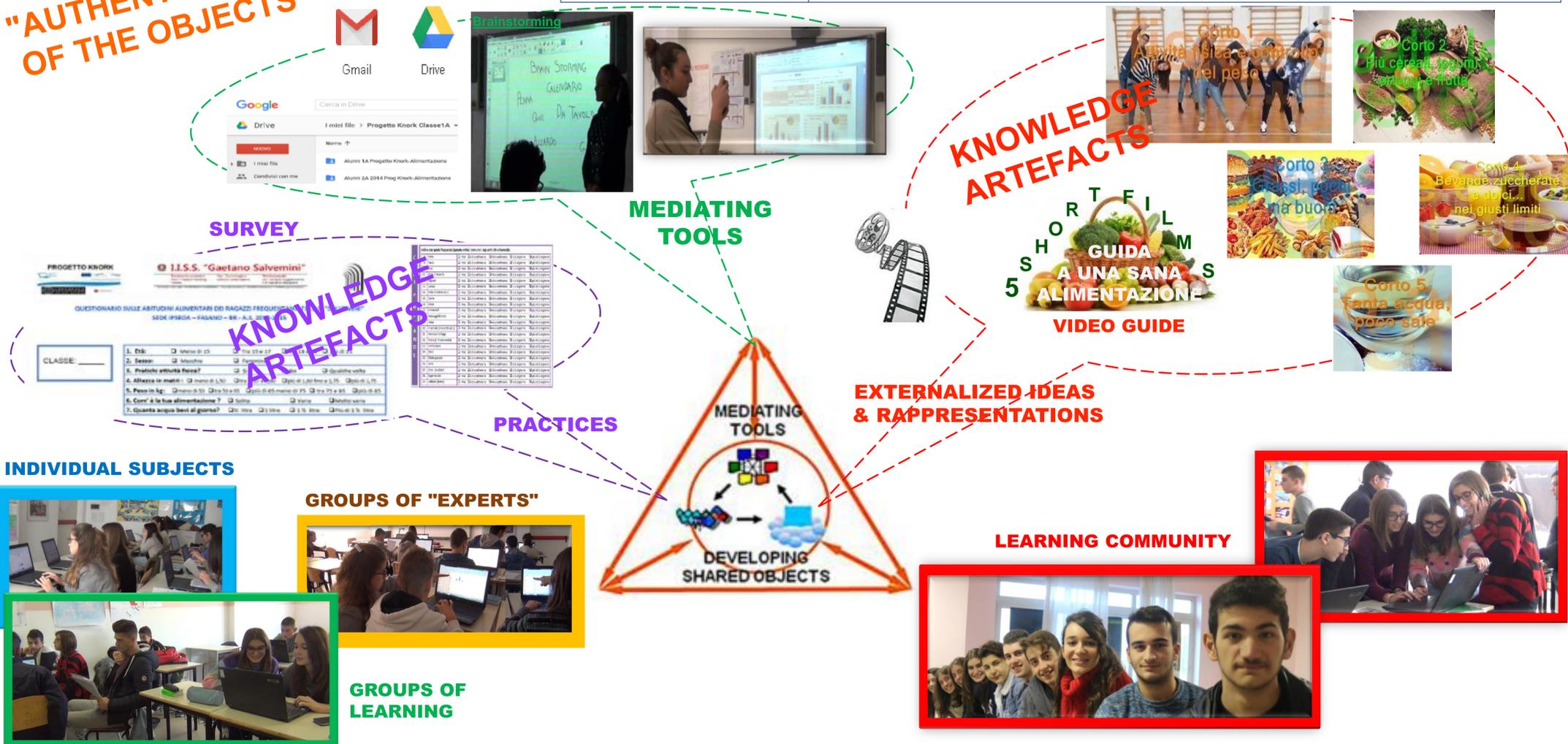
Main subject domain(s) Mathematics and Science

Duration 2 years

The object: Questionnaire - Statistical Survey - Video Guide to Healthy Food as
<http://www.salveminicoding.eu/knork/index.htm>

Subjects part of the project :
Mathematics: Statistical Survey
Science: Food Education

"AUTHENTIC" USE OF THE OBJECTS



INDIVIDUAL SUBJECTS

GROUPS OF "EXPERTS"

GROUPS OF LEARNING

LEARNING COMMUNITY

Main challenges/constrains/problems

The slowness and difficulty connecting to the Internet have limited the use of shared files and forced pupils often working offline, in addition to having extended far on schedule.

To implement a class with the triological approach takes at least three times as many hours as it takes with a traditional lecture.

Didactical and motivational successes

- ◆ Students learned new skills disciplinary and interdisciplinary through trials of reality.
- ◆ Interaction between theory and practice was facilitated: the results of the survey on eating behaviors were compared with national guidelines for a healthy diet (INRAN) in order to produce a new guide more attractive for students.
- ◆ Improved use of tools for sharing, processing, presentation and communication.
- ◆ Increased self-esteem and respect for the roles.
- ◆ Time for shared reflection increased and improved.
- ◆ Acquired a working method and consolidated the degree of operational autonomy.
- ◆ Improved integration and the collaborative skills.