

The Student Curated Exhibition – a New Approach to Getting in Touch with Science

Lorenz Kampschulte, Stefan Schwarzer, and Ilka Parchmann

Leibniz Institute for Science and Mathematics Education (IPN),
Department of Chemistry Education, Olshausenstr. 62, 24118 Kiel,
Germany







Exhibitions in IRRESISTIBLE



6E model



Exchange

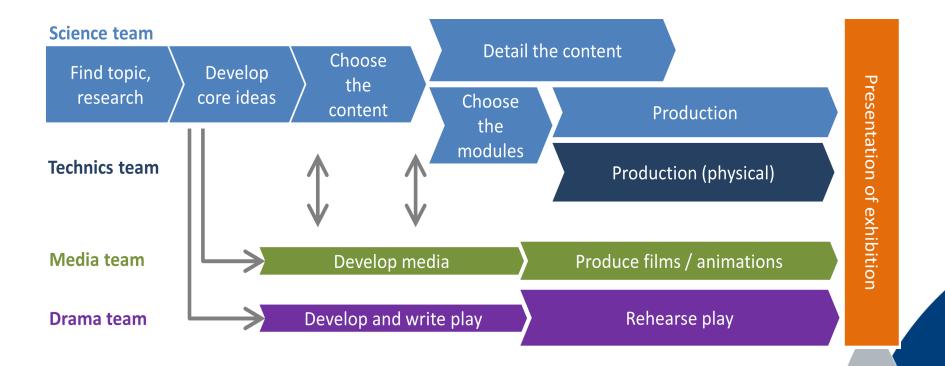
→ The students build an **exhibit/ poster** in which they demonstrate the RRI issues they have identified. The exhibits are the collected in the science center and displayed there. The exhibits can be judged, so the best exhibits may receive a prize.

→ Every class builds one (interactive) exhibit!

Core Idea of EXPOneer



Learning chemistry (physics/ biology/ RRI/ ...)
 by doing those things you like to do?



Exhibitions at School

Usually poster exhibits...











Exhibition System



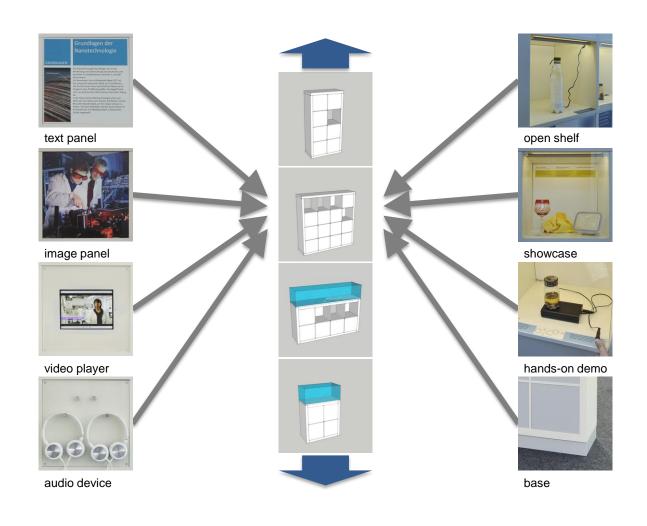
- modular system
- highly flexible
- quick & easy to build (at school)
- open access
- low priced



EXPOneer Functional Elements



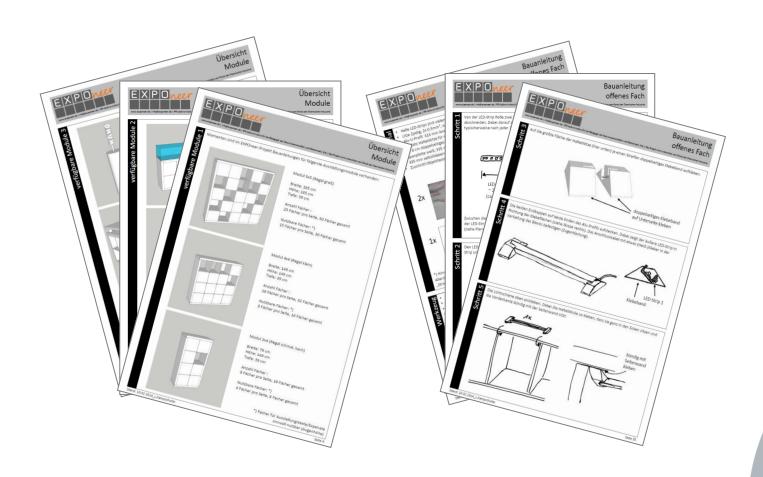
Modular system with standardized elements



EXPOneer Functional Elements



Guide: How to build an exhibition



Project "Pictures of Me"



High school (Gymnasium) Heikendorf







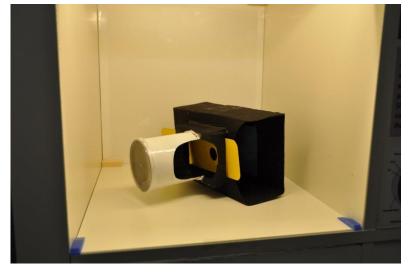
Project "Pictures of Me"



High school (Gymnasium) Heikendorf









Project "Fat!"



• High school (Gymnasium) Eckernförde

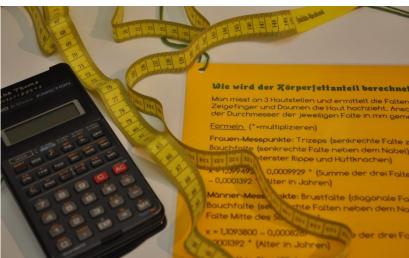


Project "Fat!"



• High school (Gymnasium) Eckernförde







Project "Nanoreseach in Kiel"



University outreach project, shopping mall Kiel

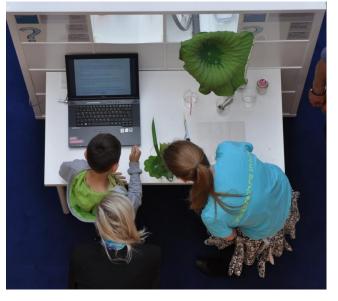


Project "Nanoreseach in Kiel"



 University outreach project, shopping mall Kiel







Project "Fat!"



- high school, grade 10/11
- joint project chemistry and art course



Evaluation tool

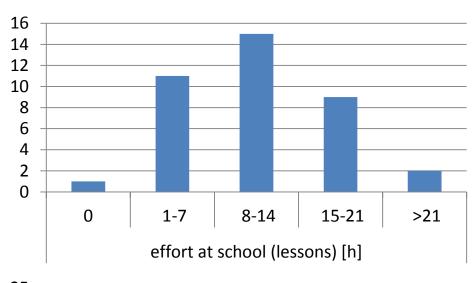


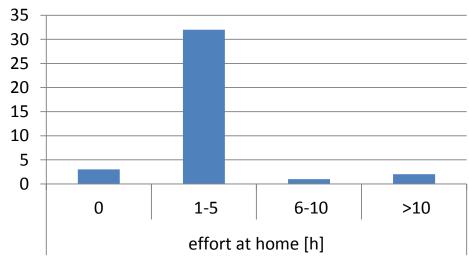
Questionnaire

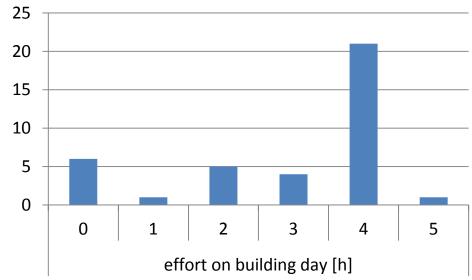
Reliabilities	pre	post
expert knowledge	.77	.85
motivation	.76	.72
social learning	.82	.85
autonomous work	.71	.90
exhibition development	.79	.82
authenticity	.76	.87
everyday context	.61	.72
scientific working	.39	.79



Time necessary to develop and build the exhibition



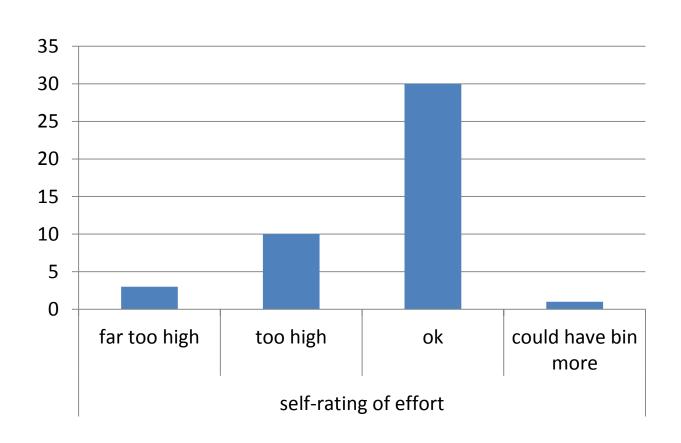




N = 38 Total student hours in project: 514 h Average: 13.5 h / student

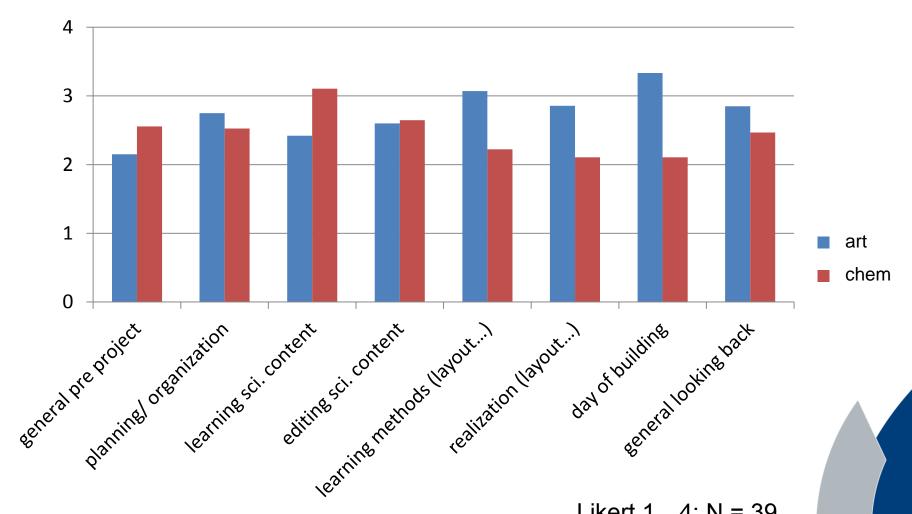


"How do you rate the effort necessary for the project?"





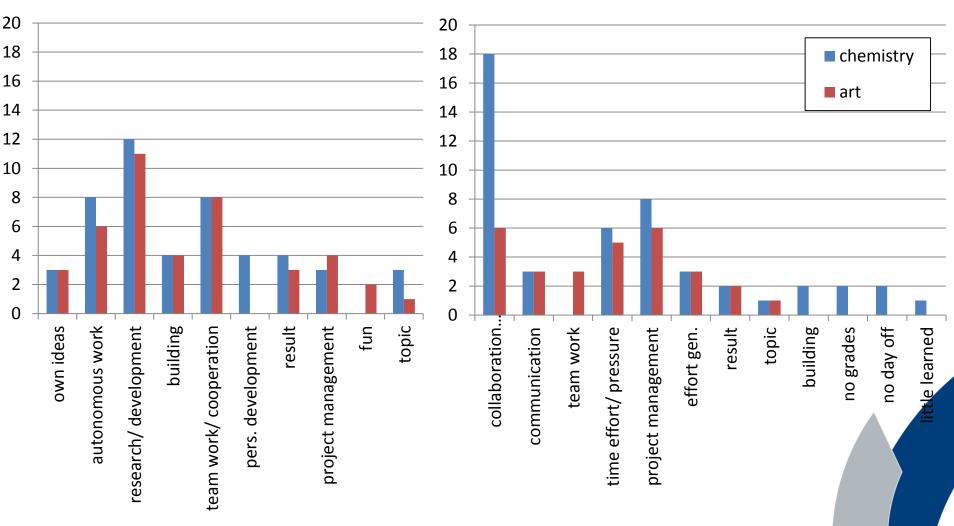
Motivation: Chemistry vs. Art course





"What did you like?"

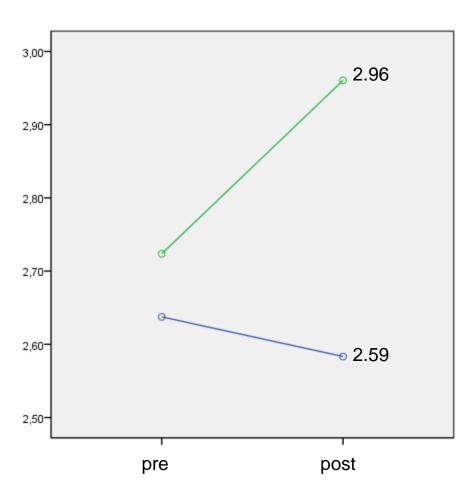
"What did you not like?"



free text item, 3 answers possible, N = 44



exhibition development



"...learn about the descriptive explanation of sci. knowledge..."
"...learn about the development of exhibitions..."

"...experience building exhibitions..."

[time n.s.; time*course n.s.]

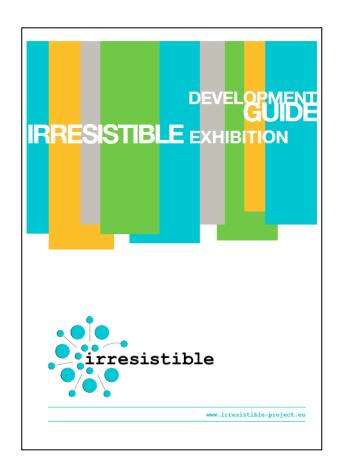
Lessons learned



- limited time frame at school needs good project management
- good cooperation between the stakeholders (teacher/ classes/ ...) is essential for the project outcome (timing, curricula, communication...)
- to build a mid-sized exhibition in one day is easily possible (two classes / ~ 40 students)

IRRESISTIBLE project





Exhibition Development Guide

IRRESISTIBLE WP3
Pedro Reis
Universidade de Lisboa

Thanks to...

Ilka Parchmann Stefan Schwarzer







Frederike Tirre, Bente Hansen

The Chemical Industry Fund



