

Use Case 2: BI in Higher Education

Business Case:

As part of the Higher Education Processes project (HEP) (see <http://www.wst.univie.ac.at/communities/hep/index.php?t=main>) undergraduate teaching courses at the Faculty of Computer Science, University of Vienna, were observed based on the usage of the teaching platform CeWEbs.

Analysis Goals:

- Conformance between real-life teaching processes and a given reference model (see link)
- Derivation of a reference process model exploiting additional compliance constraints, e.g., setting out the relation of milestones and submissions
- Analysis of forum behavior and relation of students' performance to activities in the forum

Data:

Data are collected from four distinct services, i.e., forum, submission, registration, and code evaluation on the service-oriented learning platform CeWEbs. Logs from annually offered undergraduate courses over a period of three years (course conducted every year) are available. In total there were 330 students and 18511 events. For the use case data were collected in the .csv format and anonymized.

Data Task:

- Proposal for setting up a data structure for the project

Business and Data Understanding Task:

Application Environment:

- Size and Scope of the business
- What kind of application scenario is possible?

Business Perspective:

- What are the business perspectives of interest?
- Who is the owner of the business process?
- Who are the process subjects

BI Views:

- What BI-Views are defined by the data?

Analytical goals:

- Formulate KPIs and find possible influential factors
- Formulate some analytical goals

Assessment of Data:

- Ideas for data assessment

Modeling Task:

- Do you have any ideas and proposals?

Analysis Task:

- Do you know any analysis techniques?