Towards a Comprehensive Taxonomy of Study Goals of University Students

A Synthesis of existing Study Goal Classification Systems and New Data

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Theoretical Background

- SIDDATA Project (www.siddata.de): Goal setting for university students with a digital data-driven assistant
- Goal setting increases performance (Locke and Latham, 2002).
- Goal setting can have beneficial effects on general point average and affect (Morisano et al., 2010)
- students have difficulties to name their individual study goals (Olos et al., 2014).

Research Questions

1) What kinds of individual study goals do German university students have?
2) How can these study goals be categorized in a study goal taxonomy (by a digital study assistant)?
3) How frequent are different types of study goals?

Methods

- Data collection: Web-based acquisition of university students’ goals in natural language (n=1314)
- Top-down generation of goal categories based on literature (Ahn et al., 2012; Bloom et al., 1973)
- Bottom-up creation of categories based on study goals
- Goal taxonomy: 7 super-categories and 28 categories
- Rating: Six raters assign categories for each of 1314 goals
- Calculation of Krippendorff’s Alpha as measure of inter-rater-reliability for each category
- Calculation of relative frequencies for each category

Results

Table 1: Left: Our taxonomy, super-categories bold with gray background, Middle: Categories sorted by highest inter-rater-reliability (reliable if α ≥ 0.800 with dark gray background, tentative conclusive if 0.800 > α ≥ 0.667 with light gray background) Right: Categories sorted by highest frequency

Discussion

- The results of the research described on this poster will be used for the natural language interface of a digital data-driven study assistant.
- Inter-rater-reliability may be increased by clarifying the rater instructions. This may lead to a higher inter-rater-reliability.
- The findings will be replicated with a larger dataset.

References


Fig. 1: This survey, implemented in PHP was integrated into the learning management system (LMS) Stud.IP at the universities of Bremen, Hannover and Osnabrück. Students were encouraged to enter individual goals in natural language.