Project Exposé (Revised)

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Executive Summary: Research on learning in higher education has revealed certain key aspects of teaching and learning that are most strongly associated with successful learning. One of those key characteristics is having **explicit learning goals** and communicating them to students. I am proposing to survey all the courses offered by my department and analyze the role of learning goals in each course. The expected outcome is an assessment of the current state of teaching in the department as a whole, with recommendations how to improve our teaching in the future.

1 Variables associated with achievement in higher education

Research that tries to summarize all studies concerned with effective teaching and learning provides a ranked list of variables associated with achievement, or "successful learning" (Hattie, 2015). To my knowledge, the most recent meta-review of this kind is Schneider and Preckel (2017). To illustrate this ranking, I am reproducing their 5 top-ranking variables (ibid., 568):

Rank	Variable	Who	Effect size (Cohen's d)
1	Peer-assessment	Teacher	1.91
2	Performance self-efficacy	Student	1.81
3	Preparation/ organization of the course	Teacher	1.39
4	Clarity and understandableness	Teacher	1.35
5	Setting grade goals	Student	1.12

I added a third column (**Who**) to emphasize who is the primary addressee of each variable. This excerpt shows that among variables that are associated most strongly with successful learning, both teachers and students have a role to play: successful learning is neither the sole responsibility of the student, nor the teacher.

This view also suggests that an empirically sound way to foster successful learning is for teachers to scrutinize exactly those aspects of their teaching that correlate most strongly with achievement.

2 Evaluation of teaching at my department

I am proposing to evaluate a certain key aspect of teaching at my department (**learning goals**), in order to define measures that will most effectively improve our teaching in the future.

2.1 Rationale for investigating learning goals

Given a ranked list of important aspects of teaching such as the one in Schneider and Preckel (2017), a reasonable approach would be to evaluate exactly those aspects at our department. However, not all variables are well-suited to analyze specific courses. Among the top five variables in the table above, I have decided to focus on **Preparation/ organization of the course**. The reasons for not studying the first two variables are:

- **Peer-assessment:** I already know that most lecturers at my department do not use this method. This would make the outcome of a questionnaire quite trivial.

- **Performance self-efficacy:** This variable is mostly student-centric. I am interested more in variables that teachers have the most control over. Naturally, teachers are expected to foster the perceived self-efficacy of students, but other factors such as personal experience play a major role as well – and are hard to evaluate.

On the other hand, **Preparation/ organization of the course** appears to be a suitable variable, since I expect a lot of variety at our department and it is a mostly teacher-centric variable. But of course, preparing and organizing a course involves many different activities and is still too complex to evaluate as a whole: there clearly is a need to evaluate an extremely specific subset.

As one specific sub-aspect of preparing and organizing a course, I decided to study in great detail **learning goals**. There is ample evidence from higher education research that explicit learning goals play a major role: "Clear learning goals and success criteria are strongly associated with achievement in higher education" (Schneider and Preckel, 2017, 589). Explicit learning goals are important while teacher are planning a course, for constructive alignment – but it is equally important to communicate them clearly to students while the course is running.

2.2   Data to be obtained

To be able to analyze learning goals as explained in Section 2.1 in my department, I will enlist the help of my colleagues. I will ask them to fill in a questionnaire about their view of learning goals and how they use them. Similarly, I will ask them to distribute to their students a questionnaire to find out about students' perspective on learning goals. To see if learning goals are mentioned explicitly on slides, I will finally ask them (on a voluntary basis) to give me access to their slides or other course materials.

Potential questions for lecturers:

- What are the learning goals for your course?
- Are your learning goals specific to each session, or for the entire course?
- Did you set explicit learning goals for this course in the planning phase?
- Do you mention learning goals explicitly to students?
- In your opinion, do students know the learning goals?

Potential questions for students:

- In your opinion, what are the learning goals for this course?
- Are the learning goals specific to each session, or for the entire course?
- Did the lecturer mention learning goals explicitly to you?
- Are explicit learning goals important for your learning experience?

I am aware that such an investigation into the teaching of others may seem intrusive, but I would argue that teaching is a public activity that is under public scrutiny. Besides, I think that studying learning goals will help with the ultimate goal of teaching at our department: high-quality, effective teaching.

3   Expected outcomes

I expect that such an analysis of learning goals will lead to valuable insights into the key weaknesses and strengths of the teaching at our department. Also, the analysis could result in actionable recommendations how to improve teaching in the future.

References

Hattie, J. (2015). The applicability of visible learning to higher education. *Scholarship of Teaching and Learning in Psychology*, 1(1):79.

Schneider, M. and Preckel, F. (2017). Variables associated with achievement in higher education: A systematic review of meta-analyses. *Psychological bulletin*, 143(6):565.