# Learning-environment uncertainty and students' approaches to learning: A self-determination theory perspective

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Framing the paper

1) We draw upon Self-Determination Theory (SDT) to study the relationship between learning environments and students' approaches to learning.

Learning environments ——(Autonomy, Competence, Relatedness)——> Students' approaches to learning (Deep or surface)
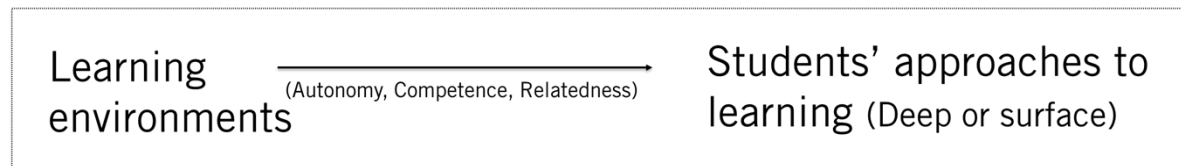
2) Based on SDT, it can be assumed that those learning environments that satisfy (frustrate) the basic psychological needs of students to feel autonomous, competent, and related, will contribute towards a deep (surface) approach to learning.

3) Extant empirical literature based on SDT
   - There is a large and diverse literature focusing on those 'qualities' of learning environments that contribute to satisfy the basic psychological needs.
   - However, when it comes to how learning environments can frustrate/thwart the basic psychological needs, focus has mainly been on one such quality, namely controlling aspects of learning environments.

4) We try to add to this latter literature through identifying *other qualities*—i.e. other than controlling ones—that also contribute to frustrate students' needs to feel autonomous, competent, and related which, in turn, tend to provoke a surface approach to learning.

The main argument of the paper

We do so through identifying the importance of 'perceived uncertainties' in the learning environments—referred to as Learning Environment Uncertainties—as important triggers of a surface approach.

- We define Learning Environment Uncertainties as feelings of not knowing whether, or the extent to which, one is autonomous, competent, and/or related.

Learning Environment Uncertainty ——————→ Surface Approach to Learning

(Frustrating the need for autonomy, competence or relatedness)

We identify six qualities of learning environments that trigger such feelings of uncertainty:
- Unclear relevance (Autonomy)
- Incoherencies (Autonomy)
- Excessive workload (Competence)
- Unclear performance standards (Competence)
- Distant relationships (Relatedness)
- Unequal relationships (Relatedness)

Based on extant literature, we identify the following attributes of a surface approach to learning
- Studying so as to avoid the fear of failure
- A strong syllabus-bound attitude
- Rote learning

Main conclusion – When students experience one or more of the identified learning environment uncertainties, a surface approach to learning works as an important coping strategy for dealing with—or lessening—the experienced uncertainties.

Where does the argument come from?

1) A study of 19 first- and final year students at a business program at a Swedish university

2) Interviews:
   a. The individual background of the interviewee
   b. How they studied during the current course
   c. Their views on the teaching activities
   d. How they approached the course material
   e. Their views on the examination
   f. Their work together with other students on the course.

3) Analyses.
   a. Coding based on central concepts from Self-Determination Theory and literature on Students' approaches to learning
   b. Tension between our literature-based pre-understanding and the empirical material
      ▪ Large focus on a surface approach to learning
      ▪ Often related to various forms of perceived uncertainties
   c. Coded for such uncertainties and systematized them based on whether they were associated with the need to feel autonomous, competent, or related, respectively.

Two empirical examples

Example 1: "unclear relevance leads to an instrumental focus on getting by"

Line of argument:

1) Many of our respondents refer to how they choose to study so as to be able to get a more attractive/interesting work in the future.

2) Based on a rather 'vague' image of what such a work will entail, several of them refer to how aspects of our education seem to lack in relevance in relation to their future work.

3) This feeling of a 'lack of relevance', in turn, results in a focus on doing (only) what is required from you.

Example 1 (Cont'd)

Learning Environment Uncertainty ——————————→ Surface Approach to Learning
(Perceived lack of relevance)   (Frustrating the need for autonomy)   (Syllabus-boundness/Strong assessment orientation)

"I know that you're supposed to learn everything, but my feeling is that your own motivation increases if you understand why you want to know something […] but now it feels more like we're going through the different parts [of the course] without any… like the importance [of them] is a bit fuzzy."

"It becomes perhaps too theoretical; you lack the reality, or like "when will this be useful to us"?"

"you do what you have to and then you just let it be; you do something fun instead"

"The chances that you skip a lecture increases when you just…, you can't take it anymore. When you feel like: "this doesn't offer me anything". You lose faith in the usefulness of this. But, what do you do? Well, you just keep going. Perhaps you skip a bit more in school, to have more time for the fun stuff in your life, and to realize that everything [in life] isn't about higher education credits."

Example 2: "distant nature of relationships leads to an instrumental focus on getting by"

Line of argument:

1) Several of our respondents refer to their relationships to teachers and other students as being characterized by a certain form of distance or shallowness in the sense that they do not feel close or related to the other(s).

2) An important reason for this, is the temporal character of such relationships (i.e. that they last only for shorter periods of time and through rather infrequent contacts) and the fact that they are often played out in large groups.

3) When students experience uncertainties due to such 'distant relationships', we find that they tend to adopt a rather narrow syllabus-bound attitude as a form of need substitute (i.e. the need to feel related is substituted with an instrumental focus on getting by).

Example 2 (Cont'd)

Learning Environment Uncertainty   →   Surface Approach to Learning

(distant relationships)   (Frustrating the need for relatedness)   (Syllabus-boundness/Strong assessment orientation)

"I think it's mostly my course really. [The climate is] a bit cold and rigid, because we've hardly met, more than in a few groups."

"It feels better if the teachers like… maybe it's not [what you can expect from] the traditional university, but if they could try to be a bit closer to their students."

"If we don't become good friends along the way, then we just study. Then your focus is different… and the demands too. "

"If you are seen as an individual, it becomes more fun, I would say, and that's my experience […] there's been a huge difference between the first three years and now, this seventh term, where we're in a smaller group and [the teachers' names] have the time [for more personal feedback]. Then you're more prone, or I think you become more prone to devote more time and make an effort to understand, when you feel that you're being guided in your work"

Main findings and conclusions

In line with extant literature, we argue that:

1) Learning environments include elements that may both satisfy and thwart the basic psychological needs of students.

2) When learning environments are perceived to frustrate the basic psychological needs of students (such as the need to feel autonomous) they can contribute to provoke a surface approach to learning.

In relation to extant literature, we add:

1) Psychological needs-thwarting is not necessarily associated with the controlling behaviours of teachers (or controlling aspects of the learning environment). On the contrary, it can also be associated with perceived uncertainties in the learning environment.

2) We identify six qualities of learning environments that tend to provoke such perceived uncertainties
   - Unclear relevance and Incoherencies (Autonomy), Excessive workload and Unclear performance standards (Competence), Distant relationships and Unequal relationships (Relatedness)

3) When triggered by Learning Environment Uncertainties, a surface approach to learning can be understood as a coping strategy to deal with the perceived uncertainties.

Thank you for listening!

Questions or comments?