The limitations of autonomy-supporting teaching

Reflections from a teacher-researcher collaboration

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Practice-based study

- Practice-based study = research for and with teachers. Collaboration between three researchers and three upper-secondary teachers.
- Three intervention classes (1 Grade 10, 1 Grade 11, 1 Grade 12, N = 89) and six control classes (2 Grade 10, 2 Grade 11, 2 Grade 12, N = 166), all at the Social Science program.
- Initiated by teachers, based on student motivation issues experienced in their classrooms.
- Purpose: identify causes of low study motivation amongst students and develop effective strategies for teachers to foster adaptive motivation in their daily instruction.
- This poster presents the study design as well as preliminary findings

Data collection

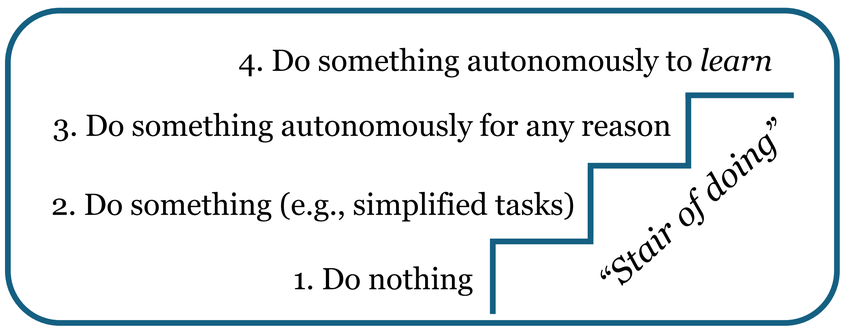
- Questionnaires to all students at the start, middle, and end of the school year:
  - Value/cost of engaging in school (based on Flake et al., 2015)
  - Intrinsic/extrinsic regulations (adapted from the SRQ-A; Ryan & Connell, 1989)
- Experience sampling method (ESM) on intervention classes:
  - Short questionnaire one lesson/day for four weeks spread out over the school year (two during fall 23, two during spring 24).
  - Students' perceptions of autonomy support, achievement emotions, task difficulty, mastery support, value appraisals, and perceived learning.
- Classroom observations and audio recordings of teacher-student interactions in the intervention classes:
  - The same 4 weeks that ESM data were collected.
  - Discussed with the teachers to refine the intervention.
- Audio recordings from teacher-researcher discussions were also used as data.

Overview study design

	Development project	Research data collection
Spring 23	Teachers interview 17 Grade 11 and 12 students at the social science program, targeting problematic motivational patterns. Summarized by the teachers, analyzed by researchers to identify themes connected to motivation theories (e.g., low perceived value in school activities, teacher-student relatedness emphasized).	
Early fall 23	Formulation of intervention focuses Motivation-focused professional development activities	1st round of questionnaires (baseline)
Fall 23 – spring 24	Intervention (several iterations: planning, implementation, evaluation, new planning phase etc.)	Experience-sampling method 2nd & 3rd rounds of questionnaires (February and may) Classroom observations
	Feedback from classroom observations, joint discussions	

Preliminary results from classroom observations and discussions between teachers and researchers.

- Examples of viable strategies identified by teachers:
  - Support students' feelings of relatedness by talking to each student each lesson
  - Make students active in their learning process by having them formulate developmental goals based on the teacher's feedback
  - Emphasize learning over doing by careful communication
  - Support students' competence satisfaction by first assessing a "pass"-level of knowledge and then continuing to assessment of higher grades.
- High autonomy for the least motivated students associated with them getting easily distracted and disengaged.
  - Engagement increased with increased structure and, arguably, decreased autonomy (cf. Jang et al. 2010). E.g., the teacher broke down large tasks into small tasks with short deadlines and relatively instrumental goals and monitored the progress closely.
  - Need for autonomy thwarted, need for competence satisfied.
  - Maintained engagement even after decreased control.
  - Teacher: "stair of doing", you may need to help students to take the initial steps to have a chance of reaching the higher steps later.



Concluding remarks

We do not argue that teachers should avoid autonomy-supporting teaching. On the contrary, a combination of structure and autonomy support has proven successful in previous studies (Jang et al. 2010). However, a decrease in autonomy combined with a high level of structure may help to engage the most amotivated students.

Besides these preliminary results, we would like to emphasize the importance of practice-based studies. While few studies test motivation theories in practice (Lazowski & Hulleman 2016), even fewer are conducted *with* teachers rather than *on* teachers. One of the main challenges for motivation research is how to transform theoretical knowledge into practical teaching designs and who could support this endeavor better than the experts of practical teaching: the active teachers.

Flake, J. K., Barron, K. E., Hulleman, C., McCoach, B. D., & Welsh, M. E. (2015). Measuring cost: The forgotten component of expectancy-value theory. *Contemporary Educational Psychology*, *41*, 232–244. https://doi.org/10.1016/j.cedpsych.2015.03.002

Jang, H., Reeve, J., & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Psychology*, *102*(3), 588–600. https://doi.org/10.1037/a0019682

Lazowski, R. A., & Hulleman, C. S. (2016). Motivation interventions in education: A meta-analytic review. *Review of Educational Research*, *86*(2), 602–640. https://doi.org/10.3102/0034654315617832

Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, *57*(5), 749–761. https://doi.org/10.1037/0022-3514.57.5.749

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