

Problem based education in a Dutch university of applied sciences and its effect on basic psychological need facilitation, a self-determination theory study

Abstract

Motivation is a huge part of one's success in studying. The absence of motivation leaves students in states where they do not have the desire to carry out their academic tasks. For schools it can be interesting to know how motivated their students are and how to aid their students in motivating them more. The Self Determination Theory notes that for students to be motivated to learn, master, and grow their basic psychological needs for autonomy, competence and relatedness must be met. This study's aim was to find how the students of the HAS university perceive their learning environment of the Problem Based Education course on the three basic psychological needs, while also looking at its effect on the student's autonomous motivation.

33 students (age ranging from 17 to 25) filled in a questionnaire on basic psychological need facilitation and motivation. The results from this were analysed to see how autonomous motivation interacted with the students feeling of autonomy, competence, and relatedness. 23 students were interviewed to further understand where their feeling of autonomy, competence and relatedness originated from. 6 teachers who taught the "Problem Based Learning" course were also interviewed to see to what extent they facilitate the basic psychological needs.

Results from the analysis showed that facilitation of the basic psychological needs did predict autonomous motivation. Autonomy, competence, and relatedness together had a strong predictive value of autonomous motivation. However, due to high (multi)collinearity, it was difficult to interpret the contribution of the separate explanatory variables. Results from the interviews showed that the students perceive support of their basic psychological needs. Where the problem-based education course itself was a large facilitator of autonomy. The teachers were strong facilitators of both autonomy, competence, and relatedness. However, due to the Covid-19 pandemic students indicated lower relatedness in the interviews, but students still scored a high relatedness satisfaction and low relatedness frustration in the questionnaires.

These findings add to the body of research stating that basic psychological need facilitation increases autonomous motivation. In addition, this study found that the problem-based education course and its teachers are facilitating the needs of autonomy, competence, and relatedness. Furthermore, this study found no significant gap between what the teachers facilitate of basic psychological needs and what the students experience of this.

Future studies should focus on expanding this research by including more students, expanding the research period over multiple course periods and multiple courses that are given parallel to the PBE course, add observations next to the interviews and questionnaires and conduct measurements without the limitations of covid-19 government measures.