

Understanding Study Motives for Student-Centred Curriculum Design in Logistics

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Abstract

The logistics sector has to master the so-called twin transition. This simultaneous transformation towards sustainability and digitalisation is challenging, as it requires a sufficient number of suitably qualified labour. Higher education institutions play a key role in this, having typically adapted the curricula of their logistics degree programmes to emphasise topics related to the twin transition. However, this does not necessarily guarantee that enough young people will be attracted to these programmes and choose to study logistics. In order to successfully accomplish the twin transition, the study motives of potential students must also be considered when designing curricula. Therefore, a survey was carried out among first-year students of bachelor's and master's programmes in logistics at an Austrian university of applied sciences to identify their reasons for studying. A multidimensional approach is taken, combining different dimensions of motives for studying, such as self-transcendent, self-oriented and extrinsic motives. This allows the results to be compared with motivational mindset profiles as defined in the literature. The results suggest that there are two distinct groups of logistics students. One group mainly wants the study programme to help them achieve their career goals. The other group also wants to improve their own personal situation, but additionally that of society. When designing a student-centred curriculum, both groups should be given due consideration.

Keywords: study motives, motivational mindsets, logistics

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Introduction

The logistics industry plays a vital role in any economic system by ensuring that goods are available in the right quantities, at the right time and in the right place. In recent years, the twin transition — the combination of digitalisation and environmental sustainability — has grown in importance in logistics (Radaviciute & Meidute-Kavaliauskiene, 2025). Innovation within the framework of the twin transition potentially offers opportunities to increase the efficiency and effectiveness of logistics processes and reduce the ecological footprint. New occupational fields and job profiles that are emerging as a consequence, require new skills in the workforce (Graf et al., 2025). Higher education institutions have an important role to play in this regard by adapting their curricula accordingly (Gajsek & Mrugalska, 2026). On the one hand, it must be ensured that the skills relevant to the professional field are taught in the study programs. On the other hand, potential students should be motivated to study logistics so that sufficient skilled workers are available to master the twin transition. To achieve this, a student-centred curriculum design is an important foundation. Student centred learning, teaching and assessment respects and attends to the diversity of students and their needs (ENQA et al., 2015). A starting point for a good understanding of the students and their needs is to examine the motives behind their choice of study program. This paper therefore examines the study motives of logistics students.

Methodology

There are two basic approaches to gaining an understanding of the study motives of logistics students (Howard & Hoffman, 2017): The first option is a variable-centred approach, which essentially analyses the relationship between two variables, for example, between a study motive and academic success (e.g. Kennett et al., 2013). In contrast, the person-centred approach involves forming distinct groups of students based on their study motives (e.g. Wormington et al., 2012). When designing a student-centred curriculum, it is essential to know which student groups are represented in the program in order to address the specific needs of these groups. It seems plausible to assume that study motives are an essential determinant of students' needs in relation to their studies. For example, if someone chooses a particular study program in order to contribute to environmental issues later on, the curriculum should give these topics due consideration. This not only contributes to the choice of study programme, but also motivates students to pursue their studies and complete them successfully. Thus, this paper takes a person-centred approach to identify characteristic groups of students.

A survey of first-year logistics students is used to identify characteristic groups of students based on their study motives. The theoretical basis for forming characteristic groups of students is the concept of motivational mindsets according to Hudig et al. (2020), which defines motivational mindsets based on the importance of certain dimensions of study motives. Three dimensions of study motives are considered relevant, namely self-transcendent motives, self-oriented motives, and extrinsic motives. Self-transcendent motives are defined as a desire to learn in order to make a positive contribution to the world. Students want to gain skills that they can use in their future jobs to help others (Yeager et al., 2014). In short, the student wants to improve society. Self-oriented motives refer to the desire to study in order to expand one's knowledge of the world, become an independent thinker and learn more about one's own interests (Yeager et al., 2014). In other words, the student aims to be enabled. Extrinsic motives for going to university focus on getting a good, well-paid job in the future, as well as having fun and making new friends (Yeager et al., 2014). Essentially,

the student strives to improve the own situation. Hudig et al. (2020) conducted a survey among first-year university students and used cluster analysis to identify four meaningful motivational mindsets, which they refer to as high impact mindset, low impact mindset, social impact mindset, and self impact mindset. Table 1 shows how these motivational mindsets result from the combination of the importance of the dimensions of study motives. The results were adapted to achieve a simplified representation for the benefit of logical consistency. For the high impact mindset, all three dimensions of study motives are relatively important. The study program is chosen to become enabled to improve one's own situation and society. For the low impact mindset, none of the dimensions of study motives are important. Basically, for that person, the reason for studying is unclear. For the social impact mindset, self-transcendent and self-oriented motives are relatively important, i.e., the study program is chosen to become enabled to improve society. For the self impact mindset, self-oriented and extrinsic motives are relatively important. Therefore, the study program is chosen to become enabled to improve one's own situation.

Table 1
Theoretical Framework

		Dimensions of study motives		
		Self-transcendent motives	Self-oriented motives	Extrinsic motives
Motivational mindsets	High impact mindset	Important	Important	Important
	Low impact mindset	Not important	Not important	Not important
	Social impact mindset	Important	Important	Not important
	Self impact mindset	Not important	Important	Important

Note. Adapted from Hudig et al., 2020

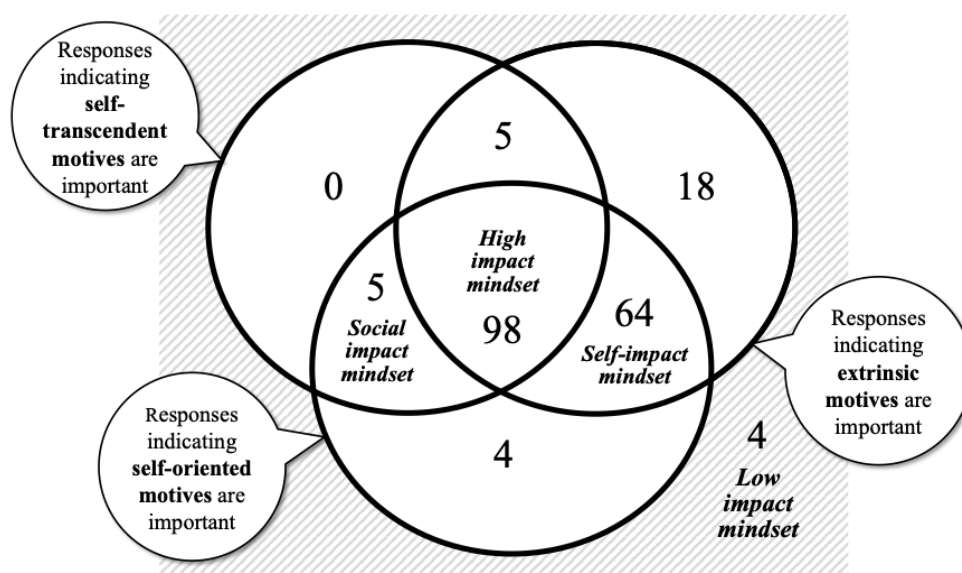
The work of Hudig et al. (2020) refers to Business Administration Bachelor's degree students in the Netherlands. This paper surveys students of bachelor's and master's programmes in logistics at an Austrian university of applied sciences. The same concept of motivational mindsets is applied to find out whether different results can be observed for logistics students.

Findings

A survey was conducted among first-year students in logistics in 2023, 2024, and 2025, resulting in 198 evaluable questionnaires. The questionnaire asked three questions for each of the dimensions of study motives. For self-transcendent motives, they relate to the importance of “doing something for the environment,” “interest in sustainability,” and “contributing to society,” and for self-oriented motives, they refer to the importance of “personal development,” “being able to pursue career aspirations,” and “developing new things.” The questions on extrinsic motives relate to the importance of achieving “high income,” “job security,” and “high reputation.” The importance was rated on a 5-point Likert scale (1 = very important, 5 = very unimportant). A dimension of study motive is considered to be “important” for a respondent if the mean value of the ratings of the corresponding three questions is less than 3.

Figure 1 summarizes the results. The three circles represent the three dimensions of study motives. Of particular interest are the overlapping areas of the circles, as motivational mindsets result from the combination of the importance of the dimensions of study motives. The numbers indicate the responses that consider the respective dimension or combination of dimensions to be “important.” The number outside all circles means that no dimension of study motives is “important.” For example, the area where all three circles overlap represents the high impact mindset, i.e., the motivational mindset for which self-transcendent motives, self-oriented motives, and extrinsic motives are considered “important.” With 98 respondents, this is the dominant motivational mindset, followed by the self-impact mindset with 64 respondents. The other two motivational mindsets only have 5 and 4 respondents, respectively. All other areas that are not defined as motivational mindsets also play a subordinate role. Only 18 students, for whom extrinsic motives are exclusively “important,” form a noteworthy, albeit subordinate, group.

Figure 1
Empirical Results



The results confirm the importance of high-impact and self-impact mindsets, but not low-impact and social-impact mindsets. The figures also show that there is no need to define further mindsets.

Conclusion

The results suggest that logistics students can be divided into two distinct groups. Almost half of the students have a high-impact mindset. This indicates that they believe that studying will improve both their own situation and that of society. Nearly one third of students have a self-impact mindset, meaning they believe studying mainly enables them to improve their own situation. These results differ from those in the literature, as neither the social impact mindset nor the low impact mindset played an important role among the students under study. It can be hypothesised that the results are specific to logistics students. A logistics degree programme typically aims to be of great value for future career development and logistics is currently undergoing a transformation in which sustainable business practices are becoming increasingly important. Against this background, the results appear plausible. For programmes in logistics and related subjects, this means that practical relevance and

sustainability must be properly incorporated into the curricula. A notable limitation of this study is that it only surveyed students who had already decided to study logistics. To reach other interested groups in the future, the motives of students who decided against studying logistics should also be examined.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

The authors declare that DeepL Translator and Deep Write were used to assist with translation, correct grammatical and spelling errors, and rephrase statements for accuracy and clarity. No other AI or AI-assisted technologies were used to generate content.

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