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"Press on regardless!" – The role of volitional control in the first year of higher education

Abstract

Students' motivation is an important predictor of study success and retention, but it declines severly during the first year in higher education. Despite this decline, about two thirds of students continue their studies. Thus, we explored the situations, in which students experience motivational decline, but apply strategies to maintain their motivation and academic goal striving in an interview study with 25 students. Our results indicate that students apply different volitional control strategies directed at their thoughts, their emotions, their motivation and their environment in order to maintain their learning and study motivation as well as their individual interest.

Keywords

Motivation, volition, individual interest, volitional control strategies

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Both authors have equally contributed to this article.

Scientific Contribution

„Augen zu und durch!" – Die Rolle volitionaler Kontrolle in der Studieneingangsphase

Zusammenfassung

Motivation gilt als wichtiger Prädiktor für Studienerfolg und -beständigkeit, allerdings sinkt sie im ersten Studienjahr stark ab. Trotz dieses Motivationsverlusts setzen ca. zwei Drittel der Studierenden ihr Studium fort. Mit unserer Studie, die auf 25 Interviews basiert, untersuchen wir motivationsgefährdende Situationen, in denen Studierende Strategien anwenden, um ihre Motivation zu erhalten und ihre akademischen Ziele weiter zu verfolgen. Unsere Ergebnisse zeigen, dass Studierende diverse volitionale Kontrollstrategien anwenden, um ihre Gedanken, ihre Emotionen, ihre Motivation und ihre Umwelt zu kontrollieren, um ihre Lern- und Studienmotivation sowie ihr Fachinteresse zu erhalten.

Schlüsselwörter

Motivation, Volition, Fachinteresse, volitionale Kontrollstrategien

1 Motivation in the first year of higher education

Besides cognitive abilities and personality traits, research has identified motivation as an important predictor of study success in higher education (RICHARDSON, ABRAHAM & BOND, 2012). Motivation affects the nature of the learning activity and the effort students invest into studying (CORNO & KANFER, 1993). In academic settings, the study motivation, that is the motivation to commence and pursue one's studies, and the learning motivation, which influences single learning situations, are distinguished (JENERT, ZELLWEGER MOSER, DOMMEN & GEBHARDT, 2009). Moreover, two types of motivation can be discerned: Academic extrinsic motivation is characterized by engagement in academic tasks for instrumental reasons (e.g., to satisfy others' expectations) (RICHARDSON et al.,

2012). Academic intrinsic motivation, in contrast, is a self-motivation for and enjoyment of academic learning and tasks with an underlying learning goal (RICHARDSON et al., 2012). Students' intrinsic motivation is based on their individual interest, that is their generalised developed interest in a subject that is typically self-determined (MIKKONEN, RUOHONIEMI & LINDBLOM-YLÄNNE, 2013). Learning based on individual interest leads to high-quality learning results and should therefore be fostered (MIKKONEN et al., 2013).

However, several studies report not only a general decline in motivation throughout the first year in higher education (BRAHM & GEBHARDT, 2011; BUSSE, 2013; JACOBS & NEWSTEAD, 2000), especially students' intrinsic motivation and their interest in their subject declines severely (BRAHM & GEBHARDT, 2011; VEEN, JONG, LEEUWEN & KORTEWEG, 2005). This loss in individual interest may one of the reasons for the high drop-out rates in the first year of higher education (HEUBLEIN, 2014).

Nevertheless, about two-thirds of the students continue their studies. MIKKONEN et al. (2013) provide a first insight into the reasons why students continue their studies despite a decline in intrinsic motivation. They investigated the interplay of students' individual interest and future goals during the first university years. The authors conclude that a lack in individual interest can be compensated by a strong future goal, for example, the wish to obtain a specific profession. However, students tended to lapse into rote learning and developed no mastery goals as they lacked intrinsic motivation associated with meaningful learning.

From research into students' motivation we learn that students' academic motivation has different aspects, such as study and learning motivation or extrinsic and intrinsic motivation. That is, students are motivated by different academic goals when commencing their studies. Moreover, we know that this initial motivation suffers a sever decline during the first year in higher education. However, it remains unclear, why some students withdraw from their studies, while others proceed to strive for their academic goals despite difficulties and frustrations encountered in the first year of higher education.

Thus, we will draw on research into volition and data from an interview study exploring the first year experience to provide inside into what helps students to stay motivated and to proceed in striving for their academic goals in the first year of higher education.

2 Conceptualising volition

While the main topic of motivation research is goal setting, volition concerns goal striving (ACHTZIGER & GOLLWITZER, 2010). Colloquially, the term 'volition' refers to the strength of will and the diligence of pursuit. Research on volition addresses the gap between intentions, for example, the set goal to study, and the action to attain the goal, in this case the learning activities.

Volitional control helps people to realise their intention by regulating cognitive, motivational and affective processes. Already HECKHAUSEN and GOLLWITZER (1987) argued that most research into goal setting has ignored volitional processes by assuming that motivation leads directly to goal achievement. But this is only true for easy to reach goals: "During pursuit of difficult or long-term goals, effective volitional control over action can enhance learning and performance, as well as sustain motivation for goal striving." (CORNO & KANFER, 1993, p. 305). Volition research conceptualises goal striving as a dynamic process, in which regardless of the initial enthusiasm or confidence during goal-setting, fluctuations of motivation may occur due to encountered difficulties and frustrations in the process of goal attainment (HUSMAN, MCCANN & CROWSON, 2000).

The Rubicon model by HECKHAUSEN & GOLLWITZER (1987) illustrates the recursive and dynamic interplay of motivational and volitional processes (CORNO & KANFER, 1993). It integrates the processes of goal setting and goal striving into a functional unit and structures the course of action in four successive phases as depicted in Figure 1.
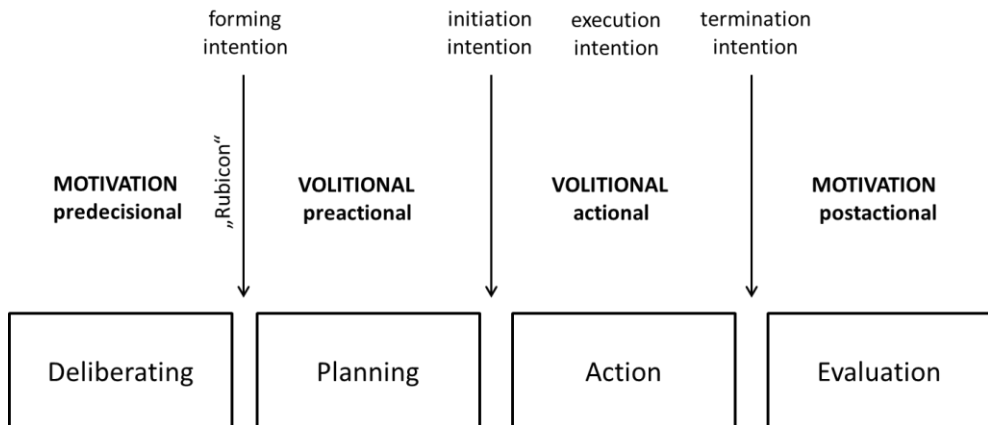
Fig. 1: Rubicon model (based on ACHTZIGER & GOLLWITZER, 2010)

In the predecisional motivation phase different goals are evaluated and a specific goal is set. With this decision the individual crosses the Rubicon to goal striving. In the postdecisional or (pre)actional volitional phases concrete action strategies are planned and executed. Finally, the action results are evaluated in the fourth postactional motivation phase. In the actional volitional phases individuals employ volitional control strategies, when the goal achievement is threatened. KUHL (2000) describes four categories of volitional strategies: *Cognitive control strategies* help individuals to stay focused on the relevant information and avoid distracting information. *Emotional control* strategies restrain emotional states such as anxiety and depression that might disrupt or inhibit action. *Motivational control strategies* help to continue the activity by strengthening its motivational basis. For *environmental control strategies* external resources are used, for example, by asking others to support one's efforts. This taxonomy of volitional strategies is consistent with the findings of MISCHEL and MISCHEL on the use of self-control strategies for the delay of gratification of children (1983).

Relationship to academic motivation

In academic situations volitional control mediates the cognitive engagement of students (HUSMAN et al., 2000). Students use volitional control strategies to maintain motivation for various course tasks necessary to the attainment of academic goals. These strategies are part of students' self-regulation. The role of cognitive and meta-cognitive self-regulation in students' learning is comprehensively described (PINTRICH, 2004). In contrast, self-regulation directed at motivation and emotion is less well researched (HUSMAN et al., 2000).

WOLTERS (2003) describes particular strategies students may use for motivational self-regulation in academic settings. With the strategy of *self-consequating* students regulate their motivation through the use of self-administered or self-provided consequences for their own behaviour. Students may reward themselves with activities or with verbal statements acknowledging their study achievement. When students apply the strategy of *goal-oriented self-talk* they remind themselves of goals they could achieve (e.g. high grades), if they continued studying. The strategy of *interest enhancement* is directed at increasing aspects of students' intrinsic motivation while completing a repetitive or boring task, for instance, through making studying into a game. Strategies of environmental structuring are used to decrease the possibility of off-task behaviour by *reducing* the probability or the intensity of *potential distractions*. Moreover, students may use *efficacy self-talk* to engage in thoughts or subvocal statements aimed at influencing their efficacy for an academic task, for example, by tell themselves that they can succeed. When students apply the strategy of *proximal goal setting*, they break complex or larger tasks into simpler more quickly completed segments (WOLTERS, 2003). While all these volitional control strategies are directed at motivation we will use KUHL's (2000) categorization of cognitive, emotional, motivational and environmental strategies to analyse what students control in order to maintain their motivation.

Thus, this paper explores the situations in the first year of higher education that endanger students' motivation and the respective volitional control strategies students apply. So far, little is known about these volitional control strategies, but they are of particular interest as they may explain, how first year students can master

motivational decline and continue their studies. Therefore, we pose the following research questions:

- Which volitional control strategies do students use in the first year of higher education to pertain striving for academic goals?
- Which situations in the first year of higher education endanger students' motivation and elicit volitional control strategies?

3 Methods

This study is part of a larger research project regarding the first year in higher education. As we found empirical evidence to be scarce, we employed an exploratory approach.

3.1 Interviews

The qualitative data was collected through semi-structured interviews. For the study reported in this paper we asked students what had helped them to master critical situations during their first year in higher education. In particular, we asked for helpful knowledge, attitudes and action strategies.

3.2 Participants

We interviewed 25 students from all the disciplinary fields represented at the University of Hamburg. We interviewed beginner (semester 1–3) and advanced students (semester 4 and above) in order to include a retrospective and contemporary perspective on the first year. To recruit interviewees, we distributed our invitation email via courses for beginner students, lecturers teaching the first year as well as student affair offices and student supervisors across the faculties. No reward was offered to students.

3.3   Data analysis

Interviews were audio-taped, transcribed verbatim and analysed thematically sup-ported by the QDA software MAXQDA (KUCKARTZ, 2014). Categories were constructed deductively – inductively. In the first step of our analysis we used the concept of volitional control strategies as search aid and worked through the 25 interviews searching for text segments, in which students reported situations en-dangering their motivation and related coping strategies. In the second, deductive step of our analysis, we assigned those categories of volitional control strategies to students' reports, which were described in the literature (see Tab. 1, non-italic). However, as we do not know of any research so far, which has focused on volition-al control strategies in the first year of higher education, we also aimed at expand-ing our predefined set of volitional control strategies by inductively developing categories from our data in step three (see Tab. 1, in italics). As fourth step, we aimed at identifying typical situations, which elicit the use of volitional control strategies in the first year of higher education and inductively constructed catego-ries for them (see Tab. 2). To ensure rigor in our analysis, we applied the procedure of consensual coding (KUCKARTZ, 2014, pp. 74-75). That is, the two authors discussed till reaching consensus in assigning text segments to categories.

4   Results

Our first research question asked, which volitional control strategies students use to pertain striving for academic goals in the first year of higher education. We identi-fied two cognitive, two emotional, four motivational and three environmental voli-tional control strategies (see Tab. 1). We found examples for six of the seven de-ductively constructed categories and constructed six additional categories induc-tively. These categories will be explained in detail in section 4.1. Our second re-search question inquired for the situations, which elicit volitional control strategies. The three inductively developed categories will be depicted in section 4.2. Moreo-ver, in section 4.3 we will draw on two student cases to illustrate how strategies and situations are related to each other.

Table 1: Volitional control strategies
(inductively constructed categories are in italics).

cognitive	N[a]	emotional	N	motivational	N	environmental	N
press on regardless	12	efficacy self talk	7	*relating study content to individual interest*	16	*studying in study groups*	5
acquiescing in	5	*(mutual) peer support*	6	goal oriented self-talk	7	reducing potential distractions	3
proximal goal setting	2			*delay of interest*	6	using external resources	1
				interest enhancement	1		
				self consequating	0		

[a]N indicates, how many text segments were assigned to the volitional control strategy.

4.1 Volitional control strategies

4.1.1 Cognitive control strategies

Pressing on regardless was the most commonly applied cognitive control strategy (see Tab. 1). Students described, how they focused on following through with their academic tasks instead of questioning what they were doing. In addition, they told themselves to never give up, to persevere or to press on regardless, for example:

> Yes, for me it was just "Press on regardless!" I just did not want to quit, because I had resigned from my apprenticeship to study, […] So I said:

> "Okay, I switch off my head now, it is really shitty right now, but you have to press on with it." (I 43[2], 40-41)

Another cognitive control strategy students applied was *acquiescing in* (see Tab. 2). Students reported, how they accepted their circumstances instead of scrutinising them and unperturbedly did the things they were required to do, for example:

> I think it is helpful to not critically reflect on the things… It is good to stick to the mindset of a pupil and to go to university and to do the things you are told to do. (I 1, 62)

Moreover, there were also examples for the strategy of *proximal goal setting*. One student described, how he used a study schedule to break down his study content in smaller manageable units.

> I have to create a study schedule. I have to start studying then … and I have this … amount to study (I 1, 53)

4.1.2 Emotional control strategies

Regarding emotional control strategies, several students reported that they had applied the strategy of *efficacy self-talk* to maintain their motivation and to encourage themselves to persist. Students told themselves that they able to succeed, for example:

> [You need] a kind of perseverance and some ambition to tell [yourself]: 'You can accomplish it. You can do it. Everything can be learnt.' (I 26, 45)

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[2] The first number indicates the interview; the second number the text segment. Interview numbers exceed 25, as the research project's sample not only contains interviews with students.

In addition, students applied the strategy of (*mutual) peer support* to control their emotions. That is, they networked with other students, talked about their difficulties and comforted each other. For example:

> What is also really important is to network with other students, as it sustains you. … The more people you know, the better … [Because] you realize that you are not the only one who is confronted with difficulties… (I 1, 71)

4.1.3 Motivational control strategies

With regard to motivational control strategies, we found many examples for the strategy of *relating study content to individual interest*. The strategy describes how students, who are confronted with obligatory study content, not inherently meeting their individual interest, become active and find ways to relate the content to their interest. Students, for example, reported, how they started to work in a student job, which helped them to relate their study content to a future job or how they negotiated with their lecturer to find a topic for a course assignment, which went beyond the original scope of the seminar but met their interest. Others read additional books or visited additional lectures, for example:

> … I have the feeling that those people… were more successful … who were self determined and said: 'Okay, I will borrow a book [from the library] which is not required or I go to … that seminar and that lecture, just because I think it is interesting' and who were searching for [interesting] things by themselves. (I 5, 40)

To maintain their motivation, students also applied the strategy of *goal-oriented self-talk*. Students, for instance, reminded themselves that they were studying at the university, as it was their own wish to study. For example:

> … I've always wanted to be a university student. That was such a big goal for me, […] And I thought … when the damned first year is over then… We were told vaguely that the first year is the toughest, as you have to es-

tablish a language base, with which you can work later. And I think this minimal ray of hope has motivated me. (I 43, 40-41)

In addition, we identified a motivational control strategy, resembling the delay of gratification as described by MISCHEL and MISCHEL (1983). When students realized that their individual interest was not met by the study content of the first year, they *delayed their interest*. That is, they consoled themselves by expecting that their individual interest would be satisfied in their future years in higher education. For instance:

… I am not the only on, I also hear from the others that they do not like it … And it is just one semester. Maybe it will be better in the following semester and there will be new topics. (I 35, 96)

Moreover, one student applied the strategy of *interest enhancement.* She reported, how she made vocabulary learning, which challenged her by its repetitiveness, more interesting:

I tried to find single things in my studies, which interested me and developed something like a fictitious joy in learning vocabulary. (I 43, 47)

4.1.4 Environmental control strategies

Students also applied *environmental control strategies*. The strategy they reported mostly was studying in learning groups. They studied in groups to strengthen their commitment to study, as the following example indicates:

I know that I have to study together with others (laughs), because I myself sometimes do not have the perseverance (laughs). (I 2, 108)

Students also controlled their environment by reducing potential distractions, for example, by choosing an appropriate place to study:

… Even if the semester ends soon, I will meet with my peers in the library in order to really study. At home it is more difficult for me, as I am always distracted and I want to do something else. (I 7, 152)

One student, moreover, *used external resources*, when seeking the Student Counselling Centre for help.

4.2   Situations eliciting volitional control strategies

Our second research question asked for situations in the first year of higher education, which endanger students' motivation and elicit the use of volitional control strategies. Three typical situations emerged.

Firstly, many students reported that they were challenged to *fulfil their regular learning assignments*. This could be the challenge to hand in weekly course assignments, to read literature on a weekly base, to study continuously during the semester or to keep up with vocabulary learning. For instance:

> Especially vocabulary learning, this constant repetition was a bit too monotonous for me, so I ran out of steam at some point... (I 43, 33)

Secondly, many students were confronted with the demand to *engage with obligatory study content not meeting their individual interest*. In some cases the obligation was to acquire basic skills in the natural sciences or in a language. In other cases it was caused by a lack of choice regarding study content, for example:

> There are certain fields of study ... , for example, in my case it is international affairs ... I don't like it, but I have to study it, because the study regulations require it. (I 34, 14)

Thirdly, students reported that they were challenged by the *exams* in the first year. Some students had to deal with failed exams others described, how exam weeks were merely characterized by "exam-stress", for instance:

> It is just the way that, if an oral exam is at hand everybody is going somehow gaga. You can really see it in their eyes. (I 32, 44)

Table 2: Situations eliciting volitional control strategies.

	N[a]		N		N
Obligatory study content not meeting individual interest	14	*Exams*	10	*Regular learning assignments*	7

[a]N indicates, how many text segments were assigned to the particular situation.

4.3 Case studies

In the following we will draw on two student cases to illustrate how situations and volitional control strategies are related to each other.

Case study 1

"Karen" is an advanced Meteorology student. In her first year in higher education she was highly challenged by the complexity and quantity of her study content. To meet the weekly course assignments she *studied in a study group* as environmental control strategy. This peer group helped her to stay on the tasks and to sustain her learning motivation. Later on, however, her peer group broke up, which hampered her exam-preparation. Consequently she failed her exam in Physics 1. Due to administrative regulations, she did not only have to resit Physics 1, but was also under pressure to pass the Physics 2 exam at the first attempt in order to be not kicked out of her study programme. To deal with the critical situation of a failed *exam* and the enormous emotional pressure to pass the Physics 2 exam at the first attempt, Karen applied an environmental control strategy and *used external resources* by seeking the Student Counselling Centre for help. In addition, she controlled her emotions by applying the strategy of *efficacy self-talk* to encourage herself.

> I was thinking... ... Are you changing your major or are you able to do it [pass the exam]? ... and I went to the Student Counselling Centre ... and […] just to sit there and talk about my situation ... gave me the energy to think: I can do it, I can do it, I can do it. (80)

Background of her exam related difficulties was that she had to engage with *obligatory study content* that was *not meeting her individual interest*. To cope with this obligation she *delayed her interest*:

> … we did not yet know how Meteorology really was, because we only had one introductory course. And then we really wanted to survive the first year to see how Meteorology really was, with the real lectures. (24)

Case study 2

"Jim" is an advanced student of educational sciences. He recalled how he and his peer students were emotionally challenged by the *exams* in their first year of higher education:

> Certainly, many had to deal with exam stress. That was quite usual at the end of each term. ... in the first year that was DRAMATIC, that was ... "oh my GOD!" (41)

Further on he described, how he developed the emotional control strategy of *efficacy self-talk* to cope with the exam stress:

> And later, maybe from the fourth semester onwards, you said: "Yes, exam stress. … I now face a stressful period in my studies, but it will pass and I can cope with it." … (41)

Furthermore, Jim applied an environmental control strategy by *studying in a study group* to *fulfil regular learning assignments*:

> […] and what is really helpful, is to meet with peers, as it strengthens the commitment [to study] (53).

Jim was also required to study *obligatory study content not meeting his individual interest* due to a limited course choice:

> Basically I had no choice when it came to my courses. There was twenty times the same course to choose from… I found it depressing, because there was just no way to follow my individual interest. […] (60)

Later on, he described how he applied the motivational control strategy of *goal-oriented self-talk* to cope with the limited choice:

> At the beginning of studying it does not seem as if you are doing it for yourself, as everything is predetermined [by the university] […] but ultimately you are at the university because you YOURSELF wanted go to university. […] and to become aware of this has always been motivating for me. (71)

Thus, Jim reminded himself of his initial decision to study to maintain his learning motivation.

5   Discussion

The aim of the present study was to explore, how students cope with the severe motivational decline in the first year of higher education and pertain striving for academic goals. Thus, we drew on volitional research and data from an interview study exploring the first year experience to identify the situations, in which students experience motivational decline and the strategies they apply to maintain their motivation and their striving for their academic goals.

Regarding research question one, we could identify cognitive, emotional, motivational and environmental volitional control strategies as described by KUHL (2000). With regard to cognitive control strategies, examples for *proximal goal setting* as described by WOLTERS (2003) could be found. However, the great majority of examples for cognitive control strategies were assigned to the inductively constructed categories of *pressing on regardless* and *acquiescing in*. Regard-

ing both strategies students reported that they directed (i.e. controlled) their thoughts towards the implementation of their study tasks, instead of questioning their circumstances or their tasks. However, *pressing on regardless* stresses how students pushed themselves to persevere, while *acquiescing in* describes a rather stoic attitude of doing the things one is told to do. As to emotional control strategies, several students reported how they encouraged themselves and thus used *efficacy self-talk* according to WOLTERS (2003). Moreover, students comforted each other in peer groups as described by the inductively constructed category of *(mutual) peer support*. Most strategies students reported, however, resembled motivational control strategies. As described in the literature, students applied *goal-oriented self-talk* to remind themselves of their initial goals and *interest enhancement* to make boring or repetitive tasks more interesting (Wolters, 2003). Nonetheless, the great majority of motivational control strategies was directed at students' individual interest, which underlies students' intrinsic motivation and facilitates high-quality learning results (MIKKONEN et al., 2013). Students used the strategy of *relating study content to individual interest* by actively searching for ways to relate their study content to their individual interest. Moreover, they maintained their motivation by *delaying their interest* to their future university years. Both categories were derived from data. Surprisingly the strategy of *self consequating* could not be found in students' reports (WOLTERS, 2003). Maybe students don't apply this strategy or they apply it so commonly that they thought it was not worth mentioning it.

We find it noteworthy that students motivational control strategies were directed at different aspects of academic motivation. With *goal-oriented self-talk* students reminded themselves of their initial study motivation to keep up their learning motivation. By *delaying or relating study content to their individual interest* students aimed at maintaining their learning motivation. Thus, the present study does not only provide insight into the interplay of motivation and volition but also sheds light on the interplay of different aspects of academic motivation.

As to environmental control strategies, most strategies were directed at finding a suitable study surrounding. This could be the library for *reducing potential distrac-*

tions or *studying in study groups* for having an appointment with studying. Whereas the former strategy is reported by WOLTERS (2003), the latter was constructed from data. An example for *using external resources* as described by KUHL (2000) was identified in Karen's case, as she sought the Student Counselling Centre for help.

These volitional control strategies were typically elicited by three situations endangering students' motivation, as inquired for in research question two: The demand to engage with *obligatory study content not meeting students' individual interest,* the requirement to fulfil *regular learning assignments* and *exams*.

Our results indicate that particular situational characteristics elicit particular volitional control strategies. *Exam situations*, which are related to negative emotions, such as fear of failure or stress, seemed to trigger the use of emotional control strategies, for instance, *mutual peer support* or *self-efficacy talk* (WOLTERS, 2003). The demand to engage with *obligatory study content not meeting one's individual interest*, seemed to elicit motivational control strategies, such as *relating study content to individual interest, delay of interest* and *goal-oriented self talk* (WOLTERS, 2003). The requirement to fulfil *regular learning assignment* was often approached with the strategy of *press on regardless*.

This relationship of situations and strategies hints at the interplay of the individual student and the study context. In the case of difficulties, such as drop out or study prolongation, rather than blaming the student or the system alone a mismatch between the two should be assumed.

Nevertheless, further research into volitional control strategies in the first year of higher education and the interplay of situational characteristics and volitional control strategies is needed, as our study is limited due to the restricted number of interviewees, which all belong to one university. In addition, our study is based on students' self reports of past incidents, which are prone to memory distortion.

Nonetheless, our study provides valuable knowledge regarding students' motivation and their volitional strategies in the first year of higher education. Related implications for academic development can have two directions. On one hand aca-

demic development can be directed at reducing the difficulties and frustrations students encounter in the first year of higher education. To protect students from the frustrating experience that they have to engage with study content, which does not meet their individual interest, the traditional structure of study programmes may need revision. Students should have the opportunity to learn more about their chosen subject and not only have to study basic knowledge. Alternative teaching-approaches, such as research-based or problem-based learning, could offer opportunities for students to pursue their individual interest and to acquire the necessary basic knowledge in a more meaningful way.

On the other hand academic development could help students to cope with the typical challenges in the first year of higher education. In training courses for volitional control strategies students could reflect on the strategies that helped them to cope with challenging academic situations in the past. They could exchange their strategies with their peers and learn about volition in order to expand their repertoire of volitional control strategies. Moreover, as peer support emerged as important environmental control strategy, students should be encouraged to form peer groups and to join buddy programmes, through which students can establish contact to older students.

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