Becoming a university student: An emotional rollercoaster

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Students’ experiences during their first year of higher education (HE) are important for study progress, retention and graduation (Glogowska, Young, & Lockyer, 2007). However, first year students meet a variety of challenges when beginning university studies. They often have to change their study strategies due to the increased demands of independent learning in HE (Brooman & Darwent, 2014; Leese, 2010). Moreover, as research shows students are highly engaged at the beginning of their studies, but feel more and more exhausted and less engaged as they proceed (Salmela-Aro & Read, 2017). These results call for measures to promote study progress that address both students’ persistence and study engagement at an early stage.

There is a growing amount of research on academic emotions and their impact on student learning (Linnenbrink-Garcia & Pekrun, 2011). Academic emotions are emotions that arise in different academic settings and can be activating or deactivating, and positive or negative (Pekrun et al., 2002). Activating academic emotions are, for example, excitement when learning something new (positive) or frustration due to having many assignments (negative). Contentment in achievements (positive) or fear of failure (negative) are deactivating academic emotions. In addition, the intensity of the academic emotions is affected by how important the task is for the student (value) and how much control students perceive they have over the process (Pekrun et al., 2002). High value combined with low control, which is typical among first year students,
can lead to feelings of anxiety (Fazey & Fazey, 2001). Academic emotions thus play a major role for first year students whereby positive academic emotions and optimism correlate with academic success, while negative academic emotions can have the opposite effect. (Postareff et al., 2017).

The aim of this study was to analyse how first year social sciences students perceive and describe their study strategies and academic emotions in reflective journals. Qualitative studies on students’ perceptions of the first year in HE are scarce (Hughes & Smail, 2015). Moreover, previous research has focused mainly on task specific academic emotions and test anxiety, while qualitative studies of the interplay between study strategies and academic emotions are rare (cf. Boekaerts & Pekrun, 2013). The intention of our study was, therefore, to contribute to the existing research by focusing on students’ own words, perceptions and feelings relating to this interplay. By analysing how students describe and reflect upon their first experiences in HE it is possible to understand what lies behind the various academic emotions and study strategies, and how students interpret them and make their interaction meaningful. When students’ perceptions are considered as a coherent whole it is possible to provide new students with appropriate support and guidance.

Self-regulated learning and academic emotions in HE

Social sciences students, i.e. the participants in this study, are expected to engage in independent learning most of the time, since they only have a few lectures every week. To accomplish study related tasks and to persist without the external control of the classroom, require good self-regulated learning (SRL) skills (van der Meer, Jansen, & Torenbeek, 2010). SRL means that students can motivate themselves, reflect metacognitively and choose an appropriate behaviour to perform a task (Zimmerman, 1986). Therefore, good SRL skills are crucial for academic achievement and progression in HE (Haarala-Muhonen, Ruohoniemi, & Lindblom-Ylänne, 2011). Time-management skills are an important part of SRL (Zimmerman, 1986; Wolters, Won, & Hussain, 2017). The more independent work an assignment requires, the more good time-management and SRL skills are required. The first-year students who adjust well to HE, spend more time on study tasks, which in turn affects their achievements (Torenbeek, Jansen, & Hofman, 2010). However, this requires that students take responsibility for their learning and are able to study independently, which, in turn, can increase their motivation (Mickwitz, 2017).

SRL is strongly affected by the perceived self-efficacy to perform a specific task (Bandura, 1991; Zimmerman, 2000). A student who lacks the confidence to perform a study task may procrastinate or leave it undone (Klassen, Krawchuk, & Rajani, 2008; Klingsieck et al., 2013). Similar to self-efficacy theory, the expectancy value model suggests that the expectations of success directly influence performance, persistence and chosen activities (Eccles & Wigfield, 2002). This model takes into account the attributional aspects of self-reflection, i.e. how students explain success or failure. Perceived competence is the strongest predictor of achievement, and subjective task values are the strongest predictors of the intention to take action (Wigfield & Eccles, 2000). Therefore, it is important to support students’ self-competence beliefs as a part of SRL skills. Experiences of success in SRL strengthen self-efficacy and increase the probability to successfully deal with similar tasks in the future (Wäschle et al., 2014).

Students’ academic emotions affect achievements via SRL skills (Mega, Ronconi, & De Beni, 2014; Villavicencio, & Bernardo, 2013). Therefore, negative academic emotions like fear of failure can indirectly affect achievements through self-handicapping activities, such as procrastination,
withdrawal from courses or other task-avoiding activities (Schwinger et al., 2014). Thus, the ability to monitor negative academic emotions, i.e. psychological flexibility, is important for study success (Asikainen, Hailikari, & Mattson, 2017). Being able to endure and regulate feelings of discomfort that arise when students need to make an effort is important for SRL and furthermore for study success in HE.

METHOD

Participants and material

This study was conducted among first year university students in social sciences who attended a compulsory study skills course (two three-hour sessions) at a Finnish university, given five times between 2014 and 2017. It was also possible to participate in the course online. The students wrote reflective journals on their study strategies, time-management skills, and motivation, and were required to track how they used their time for one week. The reflective journals were graded as pass, fail or should be revised. They were 1–8 pages in length (totally 643 pages) and the students freely discussed their own experiences during their first semester of HE in relation to course content. The course included themes such as time-management, study strategies, academic skills (reading, taking notes, and writing exams) as well as stress management and motivation. The course was arranged in the middle of the first autumn semester and the reflective journals were submitted in January. Altogether, 204 students completed the course during these years and 190 (93%) gave permission to use their reflective journals for research. Seventeen percent of the participating students chose the online course. Their permission was given before the course. The majority of the participants were female (78 %) which should be taken into account when interpreting the results and especially gender-related results.

Analysis

The reflective journals were analysed using qualitative content analysis, and the coding process relied on identifying latent content meaning in the students’ texts (Cho & Lee, 2014; Graneheim, Lindgren, & Lundman, 2017). Initially, the reflective journals were coded according to the following course themes: time-management, study strategies, academic skills, stress management, and motivation. Similarities in the reflective journals were highlighted and key features were identified and consequently coded as subthemes. The coding process was followed by categorising the subthemes into the main themes recognised by previous research (Bandura, 1991; Pekrun et al., 2002; Zimmerman, 1986). Altogether, six themes with twenty subthemes were identified (Table 1). The proportion of the main themes and the subthemes in all of the reflective journals are listed in brackets in the table. One reflective journal could include several subthemes under the same main theme, e.g. both high and low motivation, and therefore the proportions of subthemes are not mutually exclusive. Moreover, although a student mentioned a specific subtheme repeatedly it was listed only once. In order to be sensitive to how students described their time-management skills, this was analysed as a separate theme, although it is inseparable from SRL.

Quotes presented in this paper were translated into English. To protect students’ confidentiality anything that could reveal the identity of the students was rephrased without affecting the meaning of the quote. The analysis process was peer reviewed repeatedly among three researchers in such a way that encodings and thematic categorisations were compared between iterations to obtain consensus on how to interpret the texts. We met some challenges in the coding process, since several of the main themes and subthemes could overlap and be intertwined in one
Table 1. Themes and subthemes and the proportions (%) in the reflective journals

<table>
<thead>
<tr>
<th>Self-regulated learning (97)</th>
<th>Academic emotions (86)</th>
<th>Time-management (81)</th>
<th>Academic skills (81)</th>
<th>Motivation (69)</th>
<th>Self-efficacy (30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional study strategies (80)</td>
<td>Negative emotions and reasons (76)</td>
<td>Poor time-managing (63)</td>
<td>What works well (60)</td>
<td>What increases motivation (46)</td>
<td>High self-efficacy beliefs (20)</td>
</tr>
<tr>
<td>Dysfunctional study strategies (52)</td>
<td>Positive emotions and reasons (29)</td>
<td></td>
<td></td>
<td>What could be done (26)</td>
<td></td>
</tr>
<tr>
<td>Independent learning (57)</td>
<td>Emotions related to achievement (18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combining studies and leisure (56)</td>
<td>Positive stress, eustress (12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Getting started (56)</td>
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sentence. We discussed our interpretations of the concepts in relation to existing theory in order to establish a shared understanding of the meaning of every concept. We included everything related to studying demonstrating the students’ personal reflections and excluded enumerations of course content that lacked personal reflection. The study followed the ethical guidelines for research provided by the Finnish Advisory Board on Research Integrity (2012).

BECOMING A UNIVERSITY STUDENT

The results of this study show that students had to readjust their study strategies when they began their studies in HE, even if they had done well on previous educational levels. This was evident because the students discussed their academic skills in 81 % of the reflective journals, whereof 69 % related to challenges with university studies. There were no differences between the journals written by students who attended the on-campus course and students who completed the online course. Female students discussed challenges related to academic skills more frequently than male students (62 % and 34 % respectively). Uncertainty as to how to cope in the academic environment, how to get hold of course literature, and other practical issues were perceived as challenging. Moreover, students described the large amount of course literature they needed to comprehend for an exam as overwhelming, and they felt unsure of what to focus on. This uncertainty could lead to dysfunctional study strategies as the following excerpt illustrates.

The first two weeks I was so confused over what I should begin with that I simply didn’t begin. The weeks passed by and I read a little here and a little there, but every time I read, I had difficulties concentrating when in the back of my mind I thought, “If I read this now then I don’t read that, what if that is more important than what I’m reading right now?” Then I took the second book and thought the same about the third book. Then the last week came and everything collapsed.

Studying in HE can be lonely and students are often more anonymous to the teachers than during previous levels of education. Students described how study groups helped them not
only to focus on the subject making studying more meaningful, but also to increase motivation
thus providing a sense of belonging in academia. Moreover, students explained feeling that they
could not let their group down, and therefore having shared goals encouraged them to complete
the course.

One central element that has supported both my learning and my motivation is study groups.
A good deal of the courses are self-learning courses, which limit the opportunities for com-
munication between students and teacher. It is healthy to change perspectives and exchanging
thoughts from different viewpoints stabilizes and deepens my learning. Moreover, the study
groups give a sense of belonging to a whole.

The foremost study challenges the students mentioned in the present study were related to
academic skills and SRL, which are both central elements for successful studies in HE (Haarala-
Muhonen et al., 2011).

Self-regulated learning
Nearly all of the students (97 %) discussed SRL in their reflective journals. One third of the
students (36 %) discussed challenges with independent learning and self-discipline explicitly.
Forty-two percent of the female students discussed challenges with independent learning com-
pared to only 17 % of the male students. Gender differences were also noticeable in relation to
combining studies and leisure time (40 % female students, 17 % male students). Moreover, as
the excerpt below shows, the amount of responsibility followed by the newly achieved academic
freedom in HE was perceived as challenging.

My studies have always proceeded quite well in school. It was totally different at university.
Yes, they warn you in upper secondary school that you need to read more at university, but no
one told you that you really need to read more, a lot more. “You have academic freedom! You
don’t need to attend every lecture” was often heard. Yes, that’s true. But they forgot to tell you
that “you have to read on your own” actually meant “first you are in class 2 hours and then
you work independently for 8 hours”. Yes, it was a shock in the beginning.

The students in this study perceived that having less time made them use it more effectively.
For example, days without lectures were perceived as less productive since there was nothing
that forced them to get up in the morning. Moreover, when the enticement of the digital
world is high, it can be difficult to choose hard work and effort and resist engaging in enter-
taining activities. Below, the student explains the challenges of choosing delayed over instant
gratification.

I often postpone necessary tasks to as late as possible, as late as 9–10 p.m. Before that I sit
at my computer and try to tear myself from funny YouTube clips and entertaining articles. I
need to feel that I’m done with the internet for the day before I can start studying for an exam
or completing an assignment.

However, functional study strategies were mentioned in 82 % of the 190 reflective journals. Stu-
dents who were able to regulate their learning divided their tasks over a longer period of time,
noted deadlines for different assignments, and set their own goals for what to achieve. They were
also aware of where they could concentrate on studying and where they were easily disturbed.
Moreover, nearly two thirds of the students described how they learned best, which indicates
a metacognitive awareness that is important for studying in HE (cf. Haarala-Muhonen et al., 2011). Thereby, students who already had good SRL skills and were able to study independently were not particularly challenged when starting HE studies. Nevertheless, 63 % of all students mentioned challenges relating to time-management, which is central to SRL, whereof the habit of procrastination was recognised by nearly all.

**Time-management and motivation**

Only 24 % of the students perceived their time-management skills to be adequate. One fourth of the students discussed difficulties getting started with assignments, as illustrated in the excerpt below.

> I procrastinate until the day before a deadline and I am totally panic-stricken and hysterical over getting things done. The problem is that it’s so difficult to begin that I postpone it until it really is too late and then have to work day and night to get it done. This increases my stress level incredibly much, because all the time I walk around feeling guilty for not doing anything and when I finally work, I have such enormous time pressure on me that I have to work 15 hours straight.

Students’ time-management skills also affected their motivation. They described how procrastination and a feeling of an overwhelming workload decreased motivation, resulting in even more difficulty getting started. Additionally, when students perceived a task too demanding and difficult, or they were bored and uninterested, it reduced motivation even more. Nevertheless, 46 % of the students found motivation to study while only 31 % mentioned low motivation and reasons for it. Students were motivated, for example, by interesting courses, other students, future job opportunities, and by the positive academic emotions following completion of tasks. Nevertheless, students also described how they struggled in the beginning, but that they learned, or felt confident that they would learn, what worked for them as they proceeded in their studies.

> Despite the challenges I believe that six months at university has given me more than all previous schools have together. The studies are demanding, but at the same time rewarding. I think it has to do with developing study skills, language skills and finding a balance between studying and leisure time. It might take a while before it happens, but I’m certain that the day will come.

The reflective journals showed that students themselves realised that they have to adjust their study strategies and learn how to handle feelings of uncertainty and doubt since starting out in HE has a lot to do with balancing between trial and error.

**Academic emotions and self-efficacy**

The students were not explicitly asked to discuss their academic emotions in the reflective journals, therefore it was surprising that they were discussed in 86 % of them. Negative academic emotions were mentioned in 88 % of the journals while positive academic emotions were mentioned in only 29 %. More specifically, negative academic emotions were discussed by 81 % of the female students while only 56 % of male students mentioned such emotions. One fifth (21 %) of the female students discussed emotions related to achievement demands compared to only 5 % of male students. Students who failed to plan or to follow their plans, i.e. described poor SRL skills, experienced feelings of stress, disappointment, shame, anxiety and even panic.
The following excerpts illustrate how negative academic emotions build up in vicious circles of dysfunctional study strategies.

By procrastinating I build up stress and the more stressed I get the less I feel like studying because it would remind me of how much work I have undone. Moreover, I tend to stress over the fact that I already feel stressed.

Sometimes I’m so afraid of stress itself that I try to avoid situations that could cause stress. This means that I can suddenly drop out of a course because I fear that it can be too stressful even though I haven’t even tried properly. Or I wait until the last minute to plan presentations and essays because I’m afraid that the stress begins when I start to plan.

The stress the students perceived was not always related to study habits. High achievement demands and uncertainty when completing tasks also seemed to evoke academic emotions, affecting SRL, as the student below explains.

I’m not sure why it feels hard but I guess it’s because I’m afraid that it will get too hard and that I won’t understand and that’s why I put it off. I think I also avoid investing everything in tasks I feel uncertain about since it would be a harder blow if I failed. Sometimes I notice that I am relieved by not having put too much time on a course since I failed anyway. My study habits create a vicious circle where I only invest in things I already know and skip the rest.

Overall, only 10 % of the students mentioned low self-efficacy beliefs in their reflective journals, while 20 % described high self-efficacy beliefs in relation to their studies. Nevertheless, the students explained how fear of failure could make them avoid tasks, e.g. by procrastination, which indicates a lack of self-confidence. However, students who seemed to be able to cope with the high demands of HE often described how they used SRL strategies and organisation skills to prevent stressful academic emotions. Furthermore, nearly one third of the students described positive academic emotions, e.g. joy in learning new things, contentment over achievements and satisfaction after completing tasks. Thus, good SRL skills seemed to foster positive academic emotions. Ten percent of the students also described the positive effects of stress (eustress) that made them work efficiently, close to deadlines. Yet, they were also aware of the negative effects on their learning outcomes when they postponed tasks.

Finding a balance between studies and leisure time was discussed in 35 % of the reflective journals and was also described as stressful. Especially students who struggled with dysfunctional study strategies (52 %) explained that they had difficulty in making a distinction between studying and leisure time. Also, highly ambitious students who had the self-discipline to study had difficulty in allowing themselves to relax and recover. They felt bad about not studying enough and at the same time felt guilty about not spending enough time with friends and family or finding time to eat well and exercise. Nevertheless, in 36 % of the journals, students described different stress-reducing activities or activities that promoted their wellbeing and thereby their studying. Friends and family were perceived as the most important resource for protecting against negative academic emotions and perceptions of stress. Sports, music, and other hobbies were also described as helpful for relaxation and recovery.

In sum, when students described their first experiences of studying in HE, issues related to SRL were mentioned in almost all of the 190 reflective journals (97 %). Moreover, students frequently depicted a variety of academic emotions (86 %). They were intertwined in every aspect
of studying, affecting and affected by both motivation and SRL. Thus, when students were unable to regulate their learning or found themselves repeatedly procrastinating, they experienced negative academic emotions. Likewise, they described positive academic emotions when they were able to study effectively and complete tasks on time. Therefore, it seems that academic emotions can foster good study habits, but are also strongly affected by the ability to study successfully.

**DISCUSSION**

The aim of this study was to explore how first year university students describe and perceive their study strategies, SRL and academic emotions during their first semester in HE by analysing 190 reflective journals. The results showed that students reported several challenges when beginning HE, mostly in relation to independent learning and to SRL in particular, which is also found in previous research (cf. Leese, 2010). However, students also described various closely intertwined academic emotions and SRL strategies in the reflective journals. Previous research has shown that academic emotions affect achievement via students’ SRL strategies (cf. Mega, Ronconi, & De Beni, 2014). Nevertheless, students in this study rarely described how positive academic emotions supported their SRL skills. Instead they described how good SRL skills aroused positive academic emotions. On the other hand, negative academic emotions were said to both affect and be a result of poor SRL strategies. One reason for this might be that the majority of the academic emotions described in this study were negative (88 %), while just under a third described were positive. Since positive and negative academic emotions affect study success and achievement differently (cf. Postareff et al., 2017), this study clearly shows the importance of analysing why negative academic emotions were mentioned by students to a much higher degree than positive ones.

A limited amount of stress, i.e., eustress, was perceived by the students to be beneficial for completing study assignments. Nevertheless, they acknowledged the risks of waiting for the last-minute stress that forced them to begin, because they felt that their performance was affected negatively when there was less time to complete a task. Moreover, negative academic emotions, such as fear of failure and uncertainty, have a pervasive impact on academic success and are correlated with higher rates of drop out during the first year of HE (Wagner & Brahm, 2017). Therefore, university teachers ought to be aware of the different academic emotions that arise when students are new at university. Particularly students’ perceived stress, as documented in this study, during the first semester of HE calls for measures to reduce stress and support successful studying. By acknowledging the discomfort and normalising possible feelings of insecurity, teachers can support students’ acclimatisation to university. It would also be important to raise students’ awareness of different levels of stress. Students’ in this study described a fear of feeling stressed, and therefore students should be supported in recognising normal stress that is beneficial for completing assignments and stress that is harmful, in order to prevent the paralysing effect of stressful emotions.

Accordingly, becoming a university student means that students have to learn to handle frustration and other negative academic emotions related to being a novice in HE. In addition, the results of this study indicate that SRL strategies and academic emotions are closely intertwined, and therefore it is important to prevent dysfunctional study habits and negative academic emotions from becoming detrimental to students’ academic progress and success. Finding suitable study strategies takes time. Students’ insecurity in meeting the demands of HE should be addressed in order to enhance independent learning, for example by arranging study
skills courses with reflective journals for first year students, like the one described in this study. Study skills courses can help students gain control of their studies and thereby prevent harmful academic emotions (cf. Fazey & Fazey, 2001).

Limitations
Background variables, such as age or academic preconceptions, were not included in the study. However, students with a previous academic degree did not participate in the study and therefore those with a proven ability to finish a university education were excluded. Thus older students were mostly excluded. As mentioned previously, the gender distribution among the students was skewed. Therefore, it would be fruitful to replicate this study in other study fields and faculties in HE with more male students. Moreover, longitudinal studies could be useful to consider in future research to detect whether students’ increased awareness of their study strategies and recognition of academic emotions have actual effects on their study strategies, academic emotions and study progress.

Conclusions
The results of this study imply that the interplay of new university students’ study strategies, SRL and academic emotions is more complex and nuanced than mere quantitative studies would suggest. The fact that one and the same student could describe both positive and negative academic emotions, functional and dysfunctional study strategies, and high and low motivation, illustrates the complexity of these factors. Therefore, we suggest that qualitative studies broaden and deepen the picture of students’ first year experience in HE by considering the student as a coherent whole without isolating specific factors. An important result of this study is that reflective journals can serve as an important tool for students to learn about their own weaknesses and strengths with regard to study skills and habits. Reflective journals, such as the ones used in this study, do not restrict students to discuss certain topics, therefore they can reveal important aspects of how students perceive their first year of HE, such as the academic emotions that permeated these texts. In addition, reflective journals give students an opportunity to reflect upon the reasons for their experiences thereby supporting their adaptation to HE settings. Reflective journals also enhance students’ metacognitive awareness when they consider functional and dysfunctional study strategies and how they affect their learning.

The results of this study indicate that fairly small measures can support student learning and reduce negative and harmful academic emotions. By small measures, we mean e.g. study skills courses, similar to the one the students in this study participated in, that contain different kinds of challenges that first year students may meet. In these small measures we also include limited economic and teacher resources, such as only two workshops per course or even more limited resources with the online courses. The fact that students described more optimistic attitudes toward their studying after the course than before, indicates that the course helped them reduce stress by self-reflecting, adjusting their study strategies, and by sharing their experiences with other students. Sharing experiences and feelings with other students was considered beneficial and this study shows that opportunities for reflecting over study related issues and academic emotions, both individually and in groups, should be systematically implemented early on in HE. Students with more severe challenges were referred to a study psychologist’s services offered by the university for more intensive support. By applying these results to university pedagogy, it is possible both to lower the threshold for students to get started with course work and to promote good SRL skills. By using reflective journals university teachers can help new students...
adjust to the demands of HE. Moreover, teaching in HE ought to support students in becoming more internally regulated by designing appropriate learning environments and giving clear instructions and, which was clearly demonstrated in this study, providing students with a safe environment for developing their SRL skills. Furthermore, it is important for university lecturers to understand the complexity of new students’ emotional, behavioural and motivational patterns. Awareness of the interplay between academic emotions and study strategies helps students handle the emotional rollercoaster, which in turn can support their adjustment to and contentment with HE, as well as progress in their studies. Thus, universities cultivating a strong learning environment should take all these factors into account in university pedagogy, especially in planning the introductory semester.

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ACKNOWLEDGEMENT

This study was supported by The Swedish Cultural Foundation in Finland.

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