

Hidden in plain sight : capturing freshmen emotional experiences and their effects on performance at university

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Summary

Freshmen engagement has been an indicator of success for educational systems for decades (Pascarella & Terenzini, 1991; 2005). A great deal of empirical research has shown its contribution to achievement outcomes and retention at university (Fredricks, Blumenfeld, & Paris, 2004; Klem & Connell, 2004; Martin, Papworth, Ginns, & Liem, 2014). Over time, engagement has been conceptualized differently, from adjustment or adaptation (Baker & Syrik, 1999; Tinto, 1987) to multifaceted views, including behavioral, cognitive and emotional aspects of engagement (Fredricks, Blumenfeld, & Paris, 2004; (Connell & Wellborn, 1994). This wide range of indicators is needed to understand the totality of students' experiences in the context of first year at university. Such transition period brings several challenges for freshmen, among which an achievement setting that is different from high school, higher academic standards, increased competition, high expectations and perceived pressure to perform (Daniels et al., 2014 Perry, Hall, & Ruthig, 2005). Much has been written about the uncertainty and negative emotional experiences accompanying this complex and difficult period (Nathan C. Hall et al., 2006); Linnenbrink-Garcia & Pekrun, 2011; Ruthig et al., 2007). As yet, few scholars have conducted a comprehensive analysis covering the entire first year at university period, to most effectively understand students' engagement through emotional and affective variables (Beard et al., 2007a; Perry et al., 2001; D. W. Putwain, Larkin, et al., 2013; Stupnisky et al., 2012a). Using contemporary perspectives on motivation and emotions (Martin, 2007; Pekrun, 2006), the present thesis conceptualizes the classic *emotional adjustment* (Tinto, 1987) problem through *learning-related emotions (LREs)* to get more insight into freshmen's experiences at university. Recent work suggests that LREs play a crucial role in performance especially in the first year of university, a period of transition for most students; however, additional research is needed to show how these emotions emerge, further develop and finally, relate to achievement outcomes in the first year at university.

In Chapter 2 we examined the predictive value of four learning emotions – Enjoyment, Anxiety, Boredom and Hopelessness – on achievement outcomes. Using a large sample (N = 2337) of undergraduate first year students enrolled in a mathematics and statistics course, we first showed significant differences in the emotional experiences between the students who attended – as compared to those who were absent for the exam. Second, the present study revealed emotions, particularly learning hopelessness, and a prior mathematics background, to have a strong predictive value for student performance in the course. This relation was consistent over three consecutive academic years. Recommendations for improving educational practice have been formulated and shared in this chapter.

In chapter 3, we developed a framework which links a course-contextualized antecedent - academic control in Pekrun's (2006) Control Value Theory of Achievement Emotions - with generic antecedents - adaptive and maladaptive cognitions and behaviors from Martin's (2007) Motivation and Engagement Wheel framework - to explain a classical problem: the emergence of LREs in a transition period. Using a large sample (N = 3451) of first year university students, our study explores these two antecedents to better understand how four LREs (enjoyment, anxiety, boredom and hopelessness) emerge in a mathematics and statistics course. Through the use of path-modelling, we found that academic control has a strong effect on all four LREs – with the strongest impact observed for learning hopelessness and secondary, for learning anxiety. Academic control, on its turn, builds on contribu-

tions from adaptive and mal-adaptive cognitions. Furthermore, adaptive cognitions have an impact on learning enjoyment (positive) and on boredom (negative). Surprisingly though, the maladaptive behaviors impact positively learning enjoyment and negatively learning anxiety. Following this, we predicted performance outcomes in the course and found again academic control as the main predictor, followed by learning hopelessness. Overall, the findings described in this chapter bring evidence that adaptive and maladaptive cognitions and behaviors act as important antecedents of academic control, the main predictor of LREs and course performance outcomes.

In Chapter 4 we draw upon the Control Value Theory of Achievement Emotions (CVTAE), to test the assumption that antecedents of learning-related emotions (LREs) change over the duration of a mathematics and statistics course. This study focused on academic control as an antecedent of LREs. We investigated enjoyment (the positive emotion) and three negative LREs: anxiety, boredom and hopelessness. Using a repeated measures design for first year university students (N = 908), we found that academic control and the levels of LREs remain, on average, stable over the duration of the course. Second, changes in academic control were positively related to changes in the positive emotion enjoyment, and negatively related to changes in the three negative emotions. These findings offer evidence to confirm the CVTAE change – change assumption that changes in control appraisals go together with changes in positive, as well as negative, LREs.

Finally, in Chapter 5 by aiming to investigate how emotions emerge and further develop in the first year of university, we sought to understand a classic problem – freshmen’s emotional engagement at university. For this purpose, we used an integrated framework linking two contemporary theories on emotions and motivation: Pekrun’s (2006) Control Value Theory of Achievement Emotions (CVTAE) and Martin’s (2007) Motivation and Engagement Wheel framework. Using a longitudinal design employed in two course subjects and a relatively large sample (N = 908 freshmen), we first found that learning-related emotions (LREs) are indeed distinct concepts: emotions in one course predict the same emotions in another subject, and do not cross-over to other emotions. Based on the evidence provided in this study, we can confirm that LREs in the first year of university are indeed contextualized experiences, as opposed to the characteristics that learners possess upon entering the university, which matter to a lesser degree. Second, we showed that emotional experiences during learning within a certain course subject are determined by beliefs about control within the same course. Such beliefs, in turn, can influence later experiences within another course and how these experiences may change over the first year at university. These findings, in relation to theory, implications for further research, and recommendations for educational practice, have been considered and shared in Chapter 5.

In conclusion, the present thesis shows that contemporary theories of emotions provide a more detailed picture of freshmen’s emotional experiences at university, covering the entire first year of study. Such theories confirm classical approaches on emotional engagement - such as Tinto’s (1987) perspective - in which students’ experiences are an interaction between their personal characteristics and the effect of the learning environment. In a sense, our work adds to a large body of empirical research showing that Tinto was right and students do indeed build up a very strong connection to the educational institution. Through the continuity of their emotional experiences, students translate the emotional

engagement they develop towards the learning environment. In other words, we can use these contemporary theories to interpret Tinto's work using an affective and emotional perspective. Furthermore, all these theoretical approaches can be useful in explaining and, through their empirical findings, suggest how achievement outcomes can be improved. We can conclude that the freshmen experience at university is a process of ongoing adaptation to which the higher-education institutions should pay attention throughout the entire academic year and not just the introductory period. Ultimately, this research shows that student engagement and success at university are not just a function of the individual but more the result of a combined effect coming from personal characteristics which flourish under the convenient circumstances offered by the educational environment.