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# Learning motivation, engagement and burnout among university students

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## Abstract

The aim of this research was to highlight the associations between engagement, burnout and academic performance among university students. The Maslach Burnout Inventory-Student Survey, the Utrecht Work Engagement Scale and the Motivated Strategies for Learning Questionnaire were administered to a sample of 202 undergraduate students. The results indicated, as expected, significant and negative correlations between burnout and engagement, consistent with the specialty literature, confirming the/other research in the specialty literature. Significant correlations were also obtained between learning motivation, engagement and burnout. K-Means Cluster Analysis was used in order to split the participants into two clusters: cluster 1 defined as distressed students and cluster 2, well-functioning students.

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*Keywords:* academic performance, burnout, engagement, learning motivation, stress;

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## 1. Introduction

Burnout reflects a relationship of hostility and alienation between the person and his/her job, the opposite of which is engagement, a relationship of reconciliation and acceptance (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Initially, burnout was considered to occur only among individuals who worked with other people, but now the concept of burnout also includes academic life. Student activities such as attending classes, submitting assignments, working with deadlines and working long hours can be seen as work, although the students are not employed (Law, 2007).

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Schaufeli and his colleagues (2002a) define the dimensions of academic burnout as exhaustion (physical and not solely emotional), cynicism and lack of efficacy. Maslach and Leiter (1997) assume that engagement is characterized by energy, involvement. Burnout and exhaustion are regarded as two distinct dimensions that are moderately and negatively related (Schaufeli & Bakker, 2003). Student burnout can lead to higher absenteeism, lower motivation to do required course work, higher percentage of dropout and has a negative effect on academic achievement (Yang, 2004). Research also shows that student burnout and engagement could indicate how well students will function in their future working environment, the achievement strategies used during university being able to predict work burnout and engagement in the future career (Salmela-Aro, Tolvanen, & Numri, 2009).

The three dimensions of burnout were defined as follows: exhaustion refers to a person's levels of emotional and physical resources, to the feelings of tiredness; cynicism indicates the interpersonal distancing element of burnout, the negative response towards particular work and not being cognitively and emotionally involved with work (Maslach, Leiter & Schaufeli, 2008); reduced efficacy is the self-evaluation element of burnout, the individual experiencing feelings of incompetence, and a lack of ability, skill and productivity in his or her work. The dimensions of engagement were defined as follows: vigor represents the energy, the willingness and the persistence no matter the difficulties; dedication refers to the significance, the enthusiasm, the inspiration and the pride in one's work; absorption is characterized as being fully determined and focused on one's work, (Schaufeli et al., 2002b).

## **2. Purpose of study**

The aim of this research was to highlight the associations between learning engagement, burnout and academic performance among undergraduate university students. The main hypothesis is that burnout and engagement are negatively correlated. We also expect that learning motivation is positively associated with engagement and negatively associated with burnout dimensions.

## **3. Method**

### *3.1. Participants and procedure*

The participants were 202 undergraduate first year students (97 students) and second year students (131 students), from a Romanian university (159 female, 43 male). The research design is correlational. The participants gave their informed consent to participate in the study. The questionnaires were completed during class time, were anonymous and no compensation was offered.

### *3.2. Instruments*

Burnout was assessed with the Romanian version of the Maslach Burnout Inventory-Student Survey (MBI-SS), (Schaufeli et al., 2002). The MBI-SS consists of 15 items that constitute three scales: Exhaustion (5 items), Cynicism (4 items) and Efficacy (6 items). The Alpha Cronbach coefficients for the Romanian version were high: .86 for the Exhaustion scale, .90 for the Cynicisms scale, .88 for the Efficacy scale and .88 for the entire scale.

Engagement was assessed with the Romanian version of the Utrecht Work Engagement Scale (UWES), with items referring to work or job replaced by studies or class (Schaufeli & Bakker, 2003). The UWES consists of 17 items which measure the three underlying dimensions of work engagement: Vigor (6 items), Dedication (5 items) and Absorption (6 items). The Alpha Cronbach coefficients for the Romanian version were high: .82 for the Vigor scale, .91 for the Dedication scale, .89 for the Absorption scale and .92 for the entire instrument. For both instruments, all items were scored on a 7 point frequency rating scale ranging from 0 (never) to 6 (always).

Academic motivation was assessed using several scales from the motivation section of the Motivated Strategies for Learning Questionnaire (Duncan & McKeachie, 2005): Intrinsic motivation (4 items), Extrinsic motivation (4 items), Task value motivation (6 items), Control of learning beliefs motivation (4 items), and Test anxiety motivation (5 items). The Alpha Cronbach coefficients were the following: .74 for the Intrinsic motivation scale, .62 for the Extrinsic motivation scale, .90 for the Task value scale, .68 for the Control of learning beliefs scale, .80 for

the Test anxiety scale. The students responded to each item using a 7 point Likert scale ranging from 1 (not at all true of me) to 7 (very true of me).

A mini-questionnaire was also used, concerning factual data related to age, gender, parents' schooling, environment, faculty admission mark. Academic achievement was measured by the academic results collected for all the participants at the end of the academic year.

#### 4. Results and discussion

The results indicated, as expected, significant and negative correlations between burnout and engagement, confirming the literature in the field (Table 1): engagement is defined as the opposite experience of burnout, therefore it is expected that all burnout and engagement scales are negatively related (Schaufeli et al., 2002b).

Table 1. Pearson correlation coefficients between engagement and burnout

	Vigor	Dedication	Absorption	UWES_S total
Exhaustion	-.290**	-.343**	-.128	-.292**
Cynicism	-.203**	-.605**	-.287**	-.433**
Efficacy	-.211**	-.405**	-.124	-.285**
MBI_SS total	-.313**	-.588**	-.231**	-.440**

\*  $p < .05$ ,  $p < .01$ ,  $N = 202$

Significant correlations were also obtained between learning motivation, engagement and burnout. Learning motivation correlated positively with engagement and negatively with burnout. Extrinsic goals were associated only with exhaustion (Table 2). Students who are successful in achieving their goals feel more motivated and engaged in learning activities, they experience positive feelings and a positive attitude towards their studies, which lead to lower levels of burnout (Salanova, Schaufeli, Martínez, & Bresò, 2010). Engagement can also determine students' motivation for their studies (Roebken, 2007; Stoeber, Childs, Hayward & Feast, 2011). Academic self-efficacy was highly associated with engagement and burnout dimensions, students who demonstrate greater senses of self-efficacy being more likely to persist longer when facing academic challenges; self-efficacy influences the way students face challenges, adversity and lack of success (Schunk & Zimmerman, 2006).

Table 2. Pearson correlation coefficients between learning motivation, engagement and burnout

	Intrinsic goals	Extrinsic goals	Task value	Control of learning beliefs	Academic self-efficacy	Text anxiety
Vigor	.425**	.060	.483**	.137	.349**	-.277**
Dedication	.422**	.089	.633**	.217**	.397**	-.079
Absorption	.383**	-.026	.442**	.060	.249**	-.165*
UWES_S total	.491**	.042	.618**	.158*	.391**	-.208**
Exhaustion	-.333**	.228**	-.284**	-.202**	-.426**	.535**
Cynicism	-.290**	-.093	-.464**	-.279**	-.241**	.059
Efficacy	-.324**	.008	-.352**	-.150*	-.454**	.237**
MBI_SS total	-.422**	.071	-.483**	-.276**	-.507**	.381**

\*  $p < .05$ ,  $p < .01$ ,  $N = 202$

The effects of academic performance and study year were also investigated, using factorial MANOVA (Table 3). The dependent variables were study year (with two levels: first and second year) and academic performance (low and high academic performance). The results did not indicate main effects of the two variables on engagement and

burnout, but an interaction effect was identified, for burnout. Thus, the results revealed that first year students with high academic performance and second year students with low academic performance had a higher level of burnout. First year students with good performance were struggling to keep their academic level surpassing the adjustment difficulties and second year students were trying to get higher performance, resulting in a high level of stress and burnout, feeling overwhelmed and unable to meet constant demands.

Table 3. Main effects and interactions of study year and academic performance on burnout and engagement

Source	Dependent variable	df	Mean square	F	p	Eta <sup>2</sup>
Study year	MBI_SS total	1	332.988	1.757	.187	.011
	UWES_S total	1	666.952	2.694	.103	.016
Academic performance	MBI_SS total	1	12.084	.064	.801	.000
	UWES_S total	1	3.913	.016	.900	.000
Study year* Academic performance	MBI_SS total	1	843.605	4.452	.036	.026
	UWES_S total	1	217.480	.878	.350	.005
Total		168				

Since burnout and engagement are multidimensional constructs, they cannot be considered only opposite one to another (Schaufeli et al., 2002a). Taking into consideration the structure of the two constructs, exhaustion, cynicism and efficacy for burnout and vigor, dedication and absorption for engagement, K-Means Cluster Analysis was used in order to split the participants into two clusters: cluster 1 (N = 91), high academic burnout and low engagement and cluster 2 (N = 109), low academic burnout and high engagement. Given the composition of the clusters, the participants in the first cluster can be called distressed students and the students in the second cluster, well-functioning students. Previous research found a higher variability and distinguished four types of students, ranging from the highest to the lowest level of burnout (Zhang, Klassen, & Wang, 2013). The differences between the two groups of students regarding the components of learning motivation were statistically significant (Table 4). Convergent with the results of previous analyses, the Extrinsic goals scale was the only component without significant differences. Well-functioning students had higher levels of learning motivation for the following aspects: intrinsic goals, task value, control of learning beliefs, and academic self-efficacy and a lower level of test anxiety than the distressed group of students.

Table 4. Differences between the students regarding learning motivation

	Cluster	Mean	Std. deviation	t	df	p	dCohen
Intrinsic goals	1	21.48	2.75	-7.60	198	.000	1.08
	2	24.55	2.92				
Extrinsic goals	1	20.74	4.51	-.45	198	.651	.06
	2	21.06	5.24				
Task value	1	25.15	3.35	-10.28	198	.000	1.46
	2	29.96	3.23				
Control of learning beliefs	1	22.25	3.47	-2.30	196	.022	.32
	2	23.33	3.11				
Academic self-efficacy	1	34.05	5.56	-7.10	198	.000	1
	2	39.68	5.60				
Text anxiety	1	22.68	6.43	3.34	198	.001	.47
	2	19.53	6.78				

## 5. Conclusions

The study revealed that the Maslach Burnout Inventory-Student Survey and the Utrecht Work Engagement Scale had high internal consistency coefficients. However, future studies will focus mainly on the psychometric properties of the translated versions of the two instruments. The results regarding the associations between motivation, engagement and burnout are consistent with the research in the field, although the relation between academic performance and burnout needs further exploration. The current study focused on the relationships among motivation, engagement and burnout at a single point in time. A longitudinal study would evaluate the stability of these relationships over time. Future research will consider the predictive validity of these instruments, trying to identify the factors which predict burnout; previous research indicated that perfectionism, previous academic achievement (Zhang, Gan, & Cham, 2007), and social support (Yang, 2004) could predict burnout. The overall results of this study highlight the possibility to identify students who are at risk regarding their high level of burnout. This is one of the main implications of the study, given that burnout and disengagement are the most important predictors of academic dropout.

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