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Abstract

Keywords:

achievement emotions; perceived classroom assessment environment; autonomous motivation; baccalaureate exam.

Achievement emotions constitute an important individual variable in the complex process of self-regulated learning, through its effects not only on student's well-being, but also on academic performance. Exploring the individual and contextual correlates of this type of emotions experienced by students in the educational environment is important for both improving the learning climate and developing an optimal self-regulation. In this study, the analysis of data obtained from a number of 365 participants showed that students' perceived classroom assessment environment in the Romanian Language and Literature subject matter in high school is a significant predictor of the emotions experienced by students during learning this subject for baccalaureate exam, beyond the effect of autonomous motivation and previous academic performance. The results showed that perceived learning-oriented assessment environment was positively correlated with students' autonomous motivation. Moreover, it proved to be a positive predictor for the enjoyment in learning, and a negative one for anger and hopelessness, while its correlation with anxiety or boredom was not significant. In contrast, the perceived performance-oriented assessment environment was uncorrelated with students' autonomous motivation and enjoyment, but was confirmed as a positive predictor of anxiety and boredom experienced during individual learning. Finally, the results and some educational implications are discussed.

Zusammenfassung

Schlüsselworte:

Schulleistungsemotionen; wahrgenommenes Bewertungsumfeld; Selbstmotivation; Abiturprüfung.

Leistungseemotionen sind eine wichtige individuelle Variable im komplexen Prozess des selbstregulierten Lernens, da sie sich auf das Wohlbefinden und die schulischen Leistungen der Schüler auswirken. Die Erforschung der individuellen und kontextuellen Korrelate dieser Art von Emotionen, die von Schülern im Bildungsumfeld erlebt werden, ist sowohl für die Verbesserung des Lernklimas, als auch für die Entwicklung einer optimalen Selbstregulierung, wichtig.

In dieser Studie zeigte die Analyse der Daten, die von einer Zahl von 365 Teilnehmern erhalten wurden, zeigte, dass die von den Schülern wahrgenommene Bewertungsumgebung in der Klasse im Fach Rumänische Sprache und Literatur in der Sekundarstufe ein signifikanter Prädiktor für die Emotionen, die von den Schülern während des Lernens dieses Fachs für die Abiturprüfung erlebt werden, unabhängig von der früheren schulischen Leistungen und der autonomen Motivation, ist. Die Ergebnisse zeigten, dass die wahrgenommene lernorientierte Beurteilungsumgebung positiv mit der autonomen Motivation der Schüler korreliert und ein positiver Prädiktor für Freude am Lernen und ein negativer Prädiktor für Ärger und Hilflosigkeit ist, und nicht signifikant mit Angst oder Langeweile korreliert. Im Gegensatz dazu war die wahrgenommene leistungsorientierte Bewertungsumgebung mit der autonomen Motivation und der Freude am Lernen der Schüler unkorreliert, obwohl sie ein positiver Prädiktor für Angst und Langeweile während des individuellen Lernens darstellt. Abschließend werden die Ergebnisse und einige pädagogische Implikationen diskutiert.

1. Introduction

The Romanian pre-university education system encompasses a variety of methods, forms, means and tools designed for classroom assessment that constitute what is called the assessment process, the last stage of which is represented by the baccalaureate exam. Each generation of students who complete their studies in the upper secondary education cycle in Romania has the right to participate in this national

exam, which represents a means of assessing, and certifying their *skills, level of general knowledge and specialization achieved* (Ministerul Educației, 2010). The stakes of this exam are high because, as stipulated in the legislation, promoting the baccalaureate exam allows access to state and private higher education. This exam is complex and comprises 3 oral tests (the first one, designed to assess the language skills for oral

communication in Romanian / mother tongue, the second, to assess language proficiency in two languages of international circulation studied during high school and the third one, designed to assess digital skills) along with 3 written tests (one written test in Romanian Language and Literature / mother tongue and other two differentiated written tests, one compulsory and one optional, in accordance with the branch and profile of the graduated high school) (LEN, 2011, art. 77).

Given the implications of the baccalaureate exam for the medium and long-term development of students, it would be only fair to acknowledge that the effort required to prepare it is a considerable one. Therefore, while the last year of high school often proves to be a very stressful period for students, the exam itself may also be regarded as a difficult and intense time in their lives. This exam is not only a milestone reflective of individual learning and assessment experience, but it also entails the institutional and the socio-cultural components, which shape students' perceptions. Moreover, the results obtained by students have both an individual and a social stake, as they shed light on the Romanian education system, which reflects the level of general and specialized knowledge of trained professionals, as well as the quality of the educational process and the quality of graduates who will either adhere to higher education or join the labour market. This assessment context perceived and interpreted by students on an individual level, engenders undoubtedly various affective-motivational experiences.

The present article joins the theoretical and empirical efforts to identify the relationships between the specifics of assessment, represented by the evaluative climate in the classroom, the extent to which students perceive it, the motivation behind studying, and the students' emotions, in an evaluation scenario as important as the baccalaureate exam. More precisely, we aim to identify the link between the assessment climate in the classroom and the autonomous motivation of students in preparing for the Romanian Language and Literature baccalaureate exam. Additionally, we will analyse the way in which these two variables can be constructed as predictors for the emotions felt by students during their studying process of this subject matter while preparing for this exam.

2. Theoretical foundation

2.1 Classroom assessment environment

The concept of classroom assessment environment was first introduced by Stiggins & Conklin (1992), with the teacher being given an important role in creating the reality described by the two authors. Through the choices they make regarding the means, frequency, criteria or evaluation standards, teachers transform the class of students into a climate of evaluation. The classroom assessment environment is based on eight key elements: assessment goals, context and preparation of the assessment performed by the teacher, criteria for selecting assessment methods, assessment methods, assessment quality, feedback on the assessment results, as well as teacher's perception of students and the assessment policy (Stiggins & Conklin, 1992). Teachers' choices in creating a specific context of assessment environment are influenced by several categories of factors: a) teacher's attitude, orientation, philosophy and conviction regarding students and the teaching-learning process; (b) teacher's preparation, knowledge and educational assessment skills; (c) teacher's perception of students; and (d) institutional policies (Brookhart, 1997, p. 165). Starting from this perspective on classroom assessment environment, Susan Brookhart (1997) resumed and enriched this theory by including the assumption that students have also a role in building the assessment context. Students are active participants in the classroom's dynamics, especially during assessments, developing beliefs about the importance, usefulness, relevance of all practices, ways of assessment in the classroom, giving meaning and significance to the whole approach that teachers put into play (Brookhart & DeVoge, 1999). Therefore, we may consider that the assessment climate in the classroom has two dimensions: a more objective one, reflected by the way in which students' perceptions are shaped by their teachers' assessment tasks, performance criteria, type of feedback provided etc., as well as a subjective one, which addresses students' perceptions of all these specific classroom assessment practices (Brookhart & DeVoge, 1999).

While analysing the specificity of this environment, researcher Hussain Alkharusi (2010, 2011) discriminated between a learning-oriented assessment environment and a performance-oriented assessment environment. The learning-oriented classroom assessment environment is characterized by assessment practices that encourage learning, giving students the opportunity to complete a wide range of tasks, with varying degrees of difficulty, intended to help students master the content taught. In such an

environment, teachers provide support for situations where there are difficulties in understanding and completing tasks, clearly specify assessment criteria and provide students feedback on the subject matters they are not fully clear on and on the actions they can take to compensate for their shortcomings, with an emphasis on learning rather than on results. Mistakes are considered a natural part of the learning process and students are provided with opportunities and support in order to correct them. The performance-oriented classroom assessment environment is characterized by choosing difficult assessment tasks, offering feedback that could help improve performance, using value judgments and evaluation criteria based on social comparisons, as well as considering grades obtained as being more important than the undertaken effort (Alkharusi, 2010, 2011).

Relatively ample amount of research has been conducted in order to establish the relationship between the classroom assessment environment and different other individual or contextual variables involved in learning. Much of the research examines the influence of assessment on learning motivation and student academic outcomes (Brookhart, 1997; McMillan & Workman, 1998; Stiggins & Chappuis, 2005). More specifically, some studies have shown that the two assessment environments have different focal points when associated with motivational factors, such as students' achievement goals or academic self-efficacy, or with academic achievement (Alkharusi, 2008, 2009). For example, the learning-oriented assessment environment was positively associated with academic self-efficacy and academic achievement, while the performance-oriented assessment environment was negatively associated with these variables (Alkharusi, 2009, 2010, 2011). Moreover, the link between the assessment environment in school and the motivational orientations of the students was also investigated. Brookhart and DeVoge (1999) highlighted positive relationships between the characteristics of assessment tasks perceived by students, self-efficacy, effort undertaken, and obtained results. During the interviews, the participants considered important the assessment tasks that were in line with their motivational orientations: some appreciated the assessment tasks that stimulate learning, while others appreciated the ones that help them obtain good grades. Given these findings, the authors suggested that when studying the impact of classroom assessment on student motivation, students'

perceptions should be taken into consideration (Brookhart & DeVoge, 1999).

H. Alkharusi (2010) studied the relationship between teachers' assessment practices and students' perceptions of them. Statistical analysis of the responses of the 1636 students and 83 teachers showed that students' perceptions of the assessment environment were moderated by individual characteristics, such as students' self-efficacy, but also by collective ones, such as self-efficacy levels of the class, collective perceived assessment environment, academic level of the class and teacher's teaching experience and assessment practices. The findings of the study underlined that individual self-efficacy was positively correlated with a learning-oriented assessment environment and negatively correlated with a performance-oriented assessment environment. Following the same idea, Ames (1992) noted that certain classroom assessment practices increase students' motivation to learn by developing a sense of effectiveness, by perceiving the task as important and meaningful, alleviating test anxiety, and emphasizing the importance and meaning of deep learning, compared to surface learning based on memorization without understanding. Designing varied and challenging assessment tasks, offering choices, recognizing effort and progress, avoiding social comparisons, as well as focusing on private assessment for improvement are some positive practices that increase motivation to learn (Ames, 1992), and, in our opinion, emotional regulation too.

2.2 Achievement emotions

The evaluation process is infused with emotions like any other segment of the formative-educational process. Evaluating school efforts and results has positive and/ or negative effects not only on a cognitive level, but also behaviourally and emotionally. For the student, assessment is a source of information about his level of knowledge and skills in relation to the standard set by the teacher, about possible gaps or mistakes in assimilating certain knowledge that they have to correct. These aspects are also reflected in the emotional side, through the appearance of positive emotions such as gratitude, hope, pride or negative ones such as anger, frustration or anxiety. However, we may view this feedback as a double-edged sword, as for some students it acts like an incentive, mobilizing them, whereas for others it becomes a negative catalyst driving them even further away from that subject matter, from the teacher and

sometimes even from school itself. The complex dynamics of emotions in the school space was captured by several theoretical directions, such as: the dual processing self-regulation learning model (Boekaerts, 2007), the achievement goals theory (Elliot, 1999; Elliot & Church, 1997; Elliot & Pekrun, 2007), the theory of causal attribution of success and failure in school (Weiner, 1985, 2007), as well as the control-value theory (Pekrun, Frenzel, Goetz, & Perry, 2007).

Relevant to the present study is the control-value theory of Reinhard Pekrun and his collaborators (Pekrun, Goetz, Titz, & Perry, 2002; Pekrun et al., 2007). According to it, during the learning process we may find the so-called achievement emotions, that is, those affective states involved in learning activities or in pursuing achievement goals, established in accordance with a standard of excellence. In school, the achievement emotions are, therefore, the feelings that arise during learning and in achieving academic performance, compared to certain quality standards by students or other people/ institutions (Pekrun et al., 2007). As stated by this theory, achievement emotions can be: mobilizing positive emotions, such as enjoyment, hope, challenge, pride, gratitude; positive demobilizing emotions, such as contentment, relaxation or relief; negative mobilizing emotions, such as shame, anger, or anxiety, and negative demobilizing emotions, including boredom or hopelessness. As emotions accompany the entire learning and assessment process, the authors mentioned above developed a taxonomy that identifies three categories of emotions, depending on their object focus: emotions experienced in relation to learning activities, emotions that anticipate learning outcomes and emotions manifested in relation to the obtained results.

Should we extend our search beyond names and classifications, it is the mechanisms that produce emotion we deem most important, more specifically, identifying what precedes emotions and analysing the effects they produce. Thus, according to the control-value theory, academic emotions are based on the following background: the feeling of control the student believes he has over the activity (*This is a difficult / easy activity for me?*) and over its results (*It is easy / difficult to get a good grade?*), the subjective value of these activities and results (*It is important/ unimportant to get a good grade in this subject matter?*), the specific physiological processes (heartbeat, breathing etc.) and the way of designing the

learning environment (the environment provides support, feedback, clear requirements etc.) (Pekrun et al., 2007).

Achievement emotions are important individual factors in the self-regulated learning that affect cognitive processes, motivation and academic performance. Emotions do not have direct effects on academic performance, as their action is mediated, among others, by motivation, by the student's cognitive resources, learning and problem-solving strategies and by previous achievement (Curelaru, 2016). Consequently, during learning, students experience positive or negative emotions depending on the value / significance they attribute to this activity as well as the degree of control over it. If the student appreciates learning and feels that he knows what he has to do, then he experiences positive emotions: enjoyment, challenge, satisfaction. However, if he does not have all the information about what and how he will be evaluated while also knowing he has no control over this situation, then he may feel irritated, helpless or frustrated. If he does not appreciate the activity, but perceives that he has some control over it, he feels irritated, annoyed or even dissatisfied, because he has to invest in a meaningless or useless activity. Should the student not value learning tasks and not know how to learn in order to achieve performance, he will feel bored and disinterested.

While waiting for the results of their work, students also experience numerous and intense emotions. When they estimate success or a good result, know that they are capable, and that they did what they were asked to do, they feel anticipated joy. However, if the result is uncertain because they only partially control their learning, students can hope for success, but can also feel anxious if they estimate failure. The lower the degree of control in such a situation, the less likely the chance of success and the greater the chance of failure, the emotional cost being sadness, helplessness, resignation, hopelessness or frustration. According to Pekrun and his colleagues, after learning the results of an exam, the emotions are very intense and do not depend at first on the students' perceived control over the learning and assessment process. Only at a later stage does perceived control moderate emotions, both in the situation of success and in the situation of failure. At first, success provokes positive emotions, while failure stirs negative emotions. However, should we estimate the degree of control perceived in obtaining the results, the subsequent emotions become nuanced: if the obtained

results are considered successful and dependent on the estimated degree of control, students experience pride, satisfaction and contentment, but if the control depended on other people, then gratitude appears. In a situation of failure dependent on personal control, shame, sadness and guilt are characteristic, whereas in a situation where control is held by someone else, frustration and annoyance may occur.

Being aware of the achievement emotions is important not only for teachers, but also for the student, in order to regulate their causes, as well as to optimize their effects on the motivation, performance and well-being. Pekrun and his colleagues studied the relationship between achievement emotions and academic performance in a longitudinal study (Pekrun, Lichtenfeld, Marsh, Murayama, Goetz, 2017), between goals, emotions and their regulation (Pekrun, Elliot & Maier, 2009), resulting, among others, in the development and validation of a 24-scale self-reporting tool, called the Academic Emotions Questionnaire (AEQ), (Pekrun, Goetz, & Perry, 2005; Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011). In empirical research, an explanatory model was proposed regarding the way in which emotions, self-regulated learning and motivation determine academic performance (Mega, Ronconi & De Beni, 2014). The model was tested on 5,805 students and results showed that emotions influence self-regulated learning and motivation, while these last two affect, in turn, academic achievement. Thus, self-regulated learning and motivation mediate the effects of emotions on academic performance. Moreover, positive emotions favour academic achievement only when they are mediated by learning and self-regulated motivation.

2.3 Autonomous motivation

The autonomous motivation construct was developed within the theory of self-determination, in opposition to controlled motivation (Deci & Ryan, 1985). This type of motivation, experienced subjectively as initiative, will and freedom of choice, refers to the regulation of behaviors by motives derived from one's integrated sense of self (Ryan & Deci, 2017). By contrast, controlled motivation emanates from sources perceived as external to the person and is experienced as pressure and coercion. Students who are self-motivated feel free from rewards or contingencies and are determined to learn both by their own intrinsic interest in certain activities or contents and by fully internalized extrinsic motives, such as the value or importance of an activity for them.

Thus, according to the theory of self-determination, if the student has developed an autonomous motivation, he will be able to mobilize the necessary resources for learning, even when the tasks are not interesting enough by themselves. Autonomous motivation is a multidimensional construct that reflects the experience of students when they have to perform a certain activity and is expressed in interest / enjoyment, perceived competence, invested effort/ importance, perceived value / usefulness, felt pressure / tension, and perceived choice (Ryan & Ryan, 2017).

Currently, a large body of empirical research is available on both the factors that influence the development of autonomous motivation and its effects on students' emotions, learning strategies and academic achievement. Thus, studies show that autonomous motivation develops in educational settings which meet the three fundamental needs of the human being (the needs for competence, autonomy and relatedness), while teachers, parents and colleagues can contribute to creating appropriate learning contexts (Guay, Lessard, & Dubois, 2016). Most studies investigating the role of teachers in developing students' autonomous motivation support the importance of them adopting an autonomy-supportive teaching style (e.g., Reeve, 2006; Reeve, & Jang, 2006; Jang, Kim, & Reeve, 2012). This style implies the adoption of certain teaching-learning practices, such as providing meaningful rationales for learning, offering choice, acknowledging students' feelings, using non-controlling language and nurturing inner motivational resources (Su & Reeve, 2010). In school, teachers' concern for supporting autonomy is often in opposition to assessment and grading, phenomena inherent to the learning process, which exert external pressure on students. For this reason, assessment and grading may diminish students' autonomous motivation if they perceive them as contingent rewards (external pressure factors) and not as informational feedback, which is an internalized motivation (Reeve & Jang, 2006). In an experimental study aimed to assess the effects of grading on students' motivation, a decrease in autonomous motivation for learning in English as a foreign language was found, when students were asked to perform a listening comprehension activity for a grade, compared to the situation where the same task was performed without receiving a grade (Pulfrey, Buchs, & Butera, 2011). These results draw attention to the relationship between the evaluative climate of the classroom and the self-determined motivation of

students, which in the long run has beneficial effects on the healthy development of students. Research on the benefits of autonomous motivation shows that it is significantly correlated with a number of positive educational outcomes, such as students' psychological well-being, school adjustment and academic performance (Ryan & Deci, 2016).

In the present research, students' achievement emotions associated with individual studying of Romanian Language and Literature were investigated in relation to perceived classroom assessment environment of this subject matter, but also with two variables of autonomous motivation, namely perceived effort invested in learning and perceived choice. Previous studies explored the influence of classroom assessment environment on learning motivation and performance, but to our knowledge, research that analysed the relationship between this contextual variable and students' emotions are still scarce. More so, this relationship was examined in a learning context with high stakes for the Romanian educational context, namely the preparation for the baccalaureate exam. Given the framework of control-value theory, which attributes to the instructional environment an important role in emotions production (Pekrun et al., 2007), as well as research from framework of self-determination theory that supports the relationship between autonomous motivation and well-being (Ryan & Deci, 2016), the following hypotheses were proposed for the present study:

H1. Students' emotions relating to learning in Romanian Language and Literature for the baccalaureate exam would significantly correlate with perceived assessment environment in this classroom.

H1.1. Enjoyment of learning would correlate positively with perceived learning-oriented assessment environment in Romanian Language and Literature classroom and negatively with performance-oriented assessment environment.

H1.2. Anger, anxiety, hopelessness and boredom would correlate positively with perceived performance-oriented assessment environment in Romanian Language and Literature classroom and negatively with learning-oriented assessment environment.

H2. Perceived assessment environment in Language and Literature classroom would significantly predict students' emotions relating to individual learning of this subject, beyond the effect of

gender, academic performance and autonomous motivation.

3. Research methodology

3.1 Participants and procedure

This study involved 380 first-year students from several faculties of the "Alexandru Ioan Cuza" University of Iasi. 15 incomplete questionnaires were removed and only a number of 365 students in arts and humanities (N = 201), formal sciences (N = 106) and natural sciences (N = 58), enrolled in the optional course of Educational Psychology, with an average age of 19.22 years (SD = 0.88) were kept under investigation. 94 participants were boys and 270 were girls, and one participant did not declare their gender.

At the beginning of the first semester of the undergraduate program's first year, students were asked for approval to participate in a study regarding educational sciences aiming to improve the learning conditions of high school students. Only students who passed the baccalaureate the current year were invited to the study. They were informed that their participation was voluntary and confidential, with the possibility of withdrawing from the investigation if they so wished. Before handing out the questionnaires to be filled in, the students were asked to remember the period of learning Romanian Language and Literature for the baccalaureate exam and the months before the exam, in particular. More precisely, they were requested to remember how they felt, as well as what they experienced when they were studying in preparation of this exam. Then they had to fill in the questionnaires that measured the variables included in the study in the following order: achievement emotions relating to learning, perceived effort / importance of learning for this exam, perceived choice in learning and, finally, perceived classroom assessment environment. The study received the approval of the Ethics Commission of the "Alexandru Ioan Cuza" University of Iasi.

The perceived classroom assessment environment was evaluated using 10 items from the Students' Perception of the Classroom Assessment Environment Scale (Alkharushi, 2007). In the present study, the scale used includes two dimensions that assess the perceptions of 12th grade students regarding two types of evaluative climate created by the teacher in Romanian Language and Literature classes during high school. Six items refer to the learning-oriented assessment environment (e.g.: *In this class, my teacher*

helps me identify the places where I need more effort in the future; In this class, my teacher encourages viewing mistakes as learning opportunities; In this class, teacher's oral questions encourage thinking.). Four items evaluate the performance-oriented assessment environment (e.g.: *In this class, my teacher compares my performance with the performance of other students; In this class, students who do well are praised in front of the whole class; In this class, students who do poorly are criticized in front of the whole class.*). For the present study, the items were translated from the original tool using a forward-backward procedure and then adapted to fit the classroom learning context to the Romanian Language and Literature subject in high school. Participants were asked to rate on a 6-point Likert scale the extent to which each statement was true for them (1 = not at all true to 6 = very true). High scores indicate that students estimate the presence of a particular type of climate to a great extent, while low scores show that the presence of that climate is perceived less. Exploratory factor analysis in principal components confirmed the two-factor model that explained 60.64 % of the variance, with learning-oriented assessment environment factor explaining 37.57% and performance-oriented assessment environment factor explaining 23.06 % of the total variance. Both subscales have a good internal consistency.

Achievement emotions were measured using 5 of the 24 subscales of the *Academic Emotions Questionnaire* (AEQ), a multidimensional self-report tool that measures students' emotions in three academic contexts: attending class, individual learning, and taking exams or tests (Pekrun et al., 2005; Pekrun et al., 2011). In this study, we used an adapted form of scales that measure learning-related emotions for the baccalaureate exam, namely for Romanian Language and Literature subject matter. The students were asked to remember the months before the baccalaureate exam when they were studying Romanian Language and Literature. They were then asked to estimate to what extent they agreed that they experienced the feelings described by the items in the questionnaire, using a 6-point Likert scale (1 = completely disagree with the statement to 6 = completely agree with the statement). Low scores indicate a low level of self-reported emotion, while high scores indicate a high intensity of the same. Five emotions were evaluated (one with positive valence and 4 with negative valence): enjoyment (4 items; e.g.: *I enjoyed the challenge of understanding and retaining*

the elements of Romanian Language and Literature; During learning for the baccalaureate exam, I enjoyed acquiring new knowledge of Romanian Language and Literature.), anger (7 items; e.g.: *I was angry with the teachers and the Ministry because they gave us so much Romanian Language and Literature to study; While I was studying Romanian Language and Literature for the baccalaureate exam, I was so angry I felt like throwing the textbooks out the window.*), anxiety (5 items; e.g.: *I felt tense and nervous while studying Romanian Language and Literature for the baccalaureate exam; The thought that I had a lot to learn for Romanian Language and Literature for the baccalaureate exam scared me.*), hopelessness (6 items; e.g.: *I felt discouraged when I was studying Romanian Language and Literature for the baccalaureate exam; When I had to learn more difficult Romanian Language and Literature material, I felt that I was not capable of anything.*), boredom (4 items; e.g.: *The elements I had to learn for Romanian Language and Literature for the baccalaureate exam bored me to death; Reading for Romanian Language and Literature made me feel tired.*). All five subscales have an acceptable internal consistency.

Autonomous motivation was assessed by two motivational components described by the theory of self-determination (Deci & Ryan, 1985): perceived invested effort and perceived choice in learning. These two variables were measured using two subscales from the *Intrinsic Motivation Inventory*, a multidimensional instrument that assesses students' motivation in various specific activities and contexts. In our study, 5 items measured perceived effort / importance (e.g.: *I didn't try hard enough to study Romanian Language and Literature for the baccalaureate; It was important to me to do well at Romanian Language and Literature baccalaureate exam.*) and 7 items assessed perceived choice while performing individual learning in Language and Literature for the baccalaureate exam (e.g.: *I believe I had some choice about studying or not Romanian Language and Literature for the baccalaureate; I studied Romanian Language and Literature for the baccalaureate because I had no choice.*). Participants were asked to estimate how true or false each statement was for them (1 = not at all true, to 6 = very true). Low scores indicate a low level of autonomous motivation, while high scores show a high level of the same. Previous research has shown the psychometric qualities of the instrument (e.g., McAuley, Duncan, & Tammen, 1989; Monteiro,

Mata, & Peixoto, 2015). The two subscales used in the present study showed good internal consistency.

Language and Literature performance. The participants of the study reported their Romanian Language and Literature grades obtained in high school.

4. Results

The data was analysed using the SPSS statistical program, version 23.0. First, descriptive statistical analyses of all variables included in the study were performed. In addition, preliminary analyses were conducted to explore gender differences for academic performance in Romanian Language and Literature, for autonomous motivation, and for achievement emotions. Independent samples *t*-tests showed that female students had a significantly higher level of academic performance ($M_{\text{female}}=9.07$, $SD=.76$), compared to boys ($M_{\text{male}}=8.75$, $SD=.89$), with $t(360)$

$= 3.30$, $p=.001$. In terms of autonomous motivation, there is a significant difference between girls and boys for perceived invested effort [$M_{\text{female}}=4.29$, $SD=1.09$, $M_{\text{male}}=3.69$, $SD=1.11$, with $t(362) = 4.50$, $p<.001$], but not for perceived choice in learning. For three of the five types of emotions investigated, the results indicated significant gender differences: girls reported a higher level than boys for enjoyment [$M_{\text{female}}=4.31$, $SD=.93$; $M_{\text{male}}=3.78$, $SD=.98$, with $t(362) = 4.68$, $p<.001$] and for anxiety [$M_{\text{female}}=3.20$, $SD=1.28$; $M_{\text{male}}=2.84$, $SD=1.22$, with $t(362) = 2.34$, $p=.02$], while boys estimated the boredom experience as more intense [$M_{\text{female}}=2.43$, $SD=1.17$; $M_{\text{male}}=3.26$, $SD=1.40$, with $t(362) = 5.66$, $p<.001$]. Additionally, the study showed there are no gender differences for anger and hopelessness in learning.

Then, the correlations between all the variables were calculated and several hierarchical regression analyses were performed to verify the hypotheses.

Table 1. Correlation, descriptive statistics and Cronbach alphas for all the variables of the study

Variables	1	2	3	4	5	6	7	8	9	10
1. Perceived learning-oriented assessment environment	-									
2. Perceived performance-oriented assessment environment.	-.45**	-								
3. Perceived effort/importance	.12*	-.06	-							
4. Perceived choice	.15**	-.09	.08	-						
5. Enjoyment	.27**	-.11*	.33**	.23**	-					
6. Anger	-.21**	.14**	.03	-.43**	-.12*	-				
7. Anxiety	-.07	.13*	.09	-.32**	-.03	.69**	-			
8. Hopelessness	-.23**	.18**	-.07	-.35**	-.18**	.62**	.64**	-		
9. Boredom	-.17**	.23**	-.19**	-.34**	-.41**	.47**	.33**	.46**	-	
10. Academic Performance	.17**	-.18**	.16**	.27**	.19**	-.15**	-.15**	-.31**	-.25**	-
11. Gender	.02	-.05	.23**	.06	.24**	.08	.12*	.03	-.29**	.17**
Means	4.21	2.69	4.13	3.79	4.17	3.30	3.11	2.34	2.65	8.99
Standard deviation	1.29	1.32	1.12	1.01	.98	1.16	1.27	1.06	1.29	.81
Cronbach alpha	.88	.77	.76	.67	.62	.79	.85	.82	.81	-

Note. N=365; the correlation is significant at * $p < .05$; ** $p < .01$. Gender was coded 0 = male, 1 = female.

As shown in **Table 1**, perceiving a strong learning-oriented assessment environment in Romanian Language and Literature classroom was correlated with perceiving a poor performance-oriented assessment environment. A perceived learning-oriented assessment environment was positively correlated with students' perceived effort, perceived choice and academic performance, and negatively

correlated with anger, hopelessness and boredom. In contrast, perceived performance-oriented assessment environment was negatively correlated with enjoyment of learning and academic performance, positively correlated with anger, anxiety, hopelessness and boredom while uncorrelated with the two dimensions of autonomous motivation - perceived effort and perceived choice. As expected, the two components of autonomous motivation were

positively associated with the enjoyment of learning and academic performance, and negatively associated with boredom. In addition, a low level of perceived choice in learning was related to a high level of anger, anxiety and hopelessness, perceived effort not being linked to these negative emotions. Regarding the relationship between emotions and academic performance in Romanian Language and Literature, the higher the level of academic performance, the higher the self-reported enjoyment of learning, and the lower the self-reported anger, anxiety, hopelessness, and boredom.

Aiming to verify the second hypothesis of our study, we investigated the unique relationships between perceived assessment environment and students' emotions experienced in individual learning. We assumed that while controlling for the effect of gender, previous academic performance in Romanian Language and Literature, along with autonomous motivation, we would still find a significant effect of perceived assessment environment on students'

emotions in this classroom. Five regression analyses were performed with four steps included in each of them. First, we entered gender and academic performance as control variables, since prior studies proved gender differences in experiencing some emotions (e. g., Pekrun et al., 2011). Moreover, significant correlation between academic performance and all the five emotions explored was also found in the present study. Second, we introduced the two components of autonomous motivation, a proven predictor of emotions (e. g. Ryan & Deci, 2017). Then, we included perceived learning-oriented assessment environment and, finally, perceived performance-oriented assessment environment. Since predictors showed certain inter-correlations, we checked for multi-collinearity. The VIF values were all below two and the tolerance indicators were all far above 0.2 (tolerance ranged from 0.77 to 0.96), therefore collinearity was not a problem for our models (Field, 2013).

Table 2. Summary of regression analyses for variables predicting students' emotions experienced in learning Romanian Language and Literature for baccalaureate exam

Steps and predictors	enjoyment			anger			anxiety			hopelessness			boredom	
	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2
Model 1 (step 1)	.08**			.03**			.04**			.10**			.12**	
Gender (female)			.21**			.11*			.15**			.09		-
Academic Performance			.15**			-.17**			-.17**			-.32**		-
Model 2 (Steps 1, 2)	.18**	.10**		.20**	.17**		.14**	.10**		.18**	.08**		.21**	.08**
Gender (female)			.16**			.10*			.13*			.10*		-
Academic Performance			.07			-.06			-.10*			-.24**		-
Perceived effort			.27**			.05			.09			-.03		-
Perceived choice			.17**			-.42**			-.31**			-.30**		-
Model 3 (Steps 1, 2, 3)	.21**	.03**		.22**	.02**		.14	.00		.20**	.02**		.22**	.01*
Gender (female)			.16**			.10*			.13*			.10*		-
Academic Performance			.05			-.04			-.10			-.23**		-
Perceived effort			.25**			.06			.10			-.02		-
Perceived choice			.15**			-.41**			-.31**			-.28**		-
Perceived learning-oriented assessment environment			.20***			-.16**			-.02			-.14**		-
Model 4 (Steps 1, 2, 3, 4)	.21**	.00		.22**	.00		.15**	.01*		.21**	.01		.24**	.02**
Gender (female)			.17**			.10*			.13*			.10*		-
Academic Performance			.05			-.04			-.09			-.22**		-
Perceived effort			.25**			.06			.10			-.02		-
Perceived choice			.15**			-.41**			-.31**			-.28**		-
Perceived learning-oriented assessment environment			.21**			-.13*			-.02			-.11*		-
Perceived performance-oriented assessment environment			.02			.05			.11*			.07		-

Note: N=365; *p < .05; **p < .01; *p – marginal effect (p = .052/.054/.058); gender was coded 0 = male, 1 = female. All models were statistically significant; ΔR^2 indicates whether a variable makes a significant contribution to improving the prediction model.

The *Model 4* (**Table 2**) analysis, which contains both the control variables and the variables of interest for the present study, shows that beyond the effect produced by gender, academic performance and autonomous motivation on students' emotions, perceived learning-oriented assessment environment makes a small, but statistically significant contribution to explaining the variation in enjoyment, anger, and hopelessness. On the other hand, the perceived performance-oriented assessment environment could explain only a small part of the variation in boredom, as it is not predictive of either enjoyment or other negative emotions. The analysis of the beta coefficients in *Model 4* allows us to summarize the following findings. While male gender was significantly associated with boredom, in the present study, female gender predicted enjoyment, anger, and anxiety with a marginal effect on hopelessness. As shown, students' academic performance is predictive only for hopelessness, and not for other emotions. Perceived effort is correlated only with enjoyment of learning, while in this model, perceived choice is the most important predictor for all explored emotions, as it is positively associated with enjoyment and negatively associated with anger, anxiety, hopelessness and boredom. Perceived learning-oriented assessment environment is a positive predictor of enjoyment, and it is negatively correlated with anger and hopelessness. In contrast, our results indicated a significant effect of the perceived performance-oriented assessment environment exclusively on boredom and a marginal effect on anxiety, in the sense that students who perceived the assessment environment as a performance-focused one disclosed a higher level of self-reported boredom and anxiety (**Table 2**).

5. Discussions

Classroom activity is infused by various types of emotions that we may view as a psychosocial barometer of this reality. Despite the fact that psychologists focused their attention on emotional processes relatively late, as they considered them rather irrational manifestations, the influence of such emotional processes on self-regulated learning in school is becoming increasingly clear, one could even say undeniable, nowadays. The plethora of theoretical points of view concerning the dynamics of academic emotions proves their complexity and versatility in relation to various people, processes, and situations involved in the school reality. Bearing in mind the optimization of both learning climate and individual learning process, acknowledging and, implicitly,

regulating emotions represents a useful approach for the educational practice.

Following the control-value theory that explains achievement emotions in the school environment (Pekrun et al., 2007), the present study aimed to analyse, as a contextual variable, the possible influence of the classroom assessment environment on the emotions experienced by students during learning for an important exam, namely the baccalaureate. For this learning context, we evaluated the subjective dimension of the classroom assessment environment in Romanian Language and Literature classes in high school, reflected by students' perceptions of certain teacher evaluation practices (Brookhart & DeVoge, 1999). While previous research focused primarily on the influence of the classroom assessment context on the regulation of student motivation and performance (Andrade, 2013; Andrade & Brookhart, 2016), there are relatively few studies linking this variable to students' emotions triggered in the individual learning context. Within this framework, we aimed to study the potential effect of the classroom assessment environment in Romanian Language and Literature on students' emotions, taking into account two important dimensions of autonomous motivation in self-regulated learning: the student's perceived effort and importance of learning for baccalaureate exam and the perceived choice. The control-value theory considered the two variables as essential in regulating students' emotions during the learning and assessment process, as the influence of environmental educational factors is mediated by them (Pekrun et al., 2007).

The obtained results partially support the formulated hypotheses. Overall, regardless of academic performance and students' autonomous motivation, perceiving a learning-oriented assessment environment in Language and Literature classroom was associated with high enjoyment of learning and with low levels of anger, anxiety, hopelessness and boredom, while perceiving a performance-oriented assessment environment was correlated with low enjoyment of learning and high levels of anger, anxiety, hopelessness and boredom. However, should we take into consideration the previous academic performance of students in Romanian Language and Literature, as well as the autonomous motivation in learning in this subject matter, the predictive effect of the perceived assessment environment on some emotions decreases or even disappears. For example, perceiving a performance-oriented assessment environment does not predict either a decrease in joy of learning or an increase in anger or hopelessness, as these emotions are rather regulated by the perceived choice and perceived learning-oriented assessment environment. Our results rather indicate a possible influence of the performance-oriented assessment environment on the production of anxiety and boredom emotions.

More specifically, we could argue that being exposed more time to a learning-oriented assessment environment could trigger more enjoyment and less anger and hopelessness in individual learning situations, while perceiving a performance-oriented assessment environment could prompt boredom or anxiety. These findings could be explained by the fact that focusing the assessment on learning stimulates challenge, the desire to improve and, therefore, amplifies the positive emotions while diminishing the negative ones. On the other hand, prolonged focus on performance in classroom assessment contexts can increase students' competitiveness and, as a result, activate anxiety even in individual learning. In addition, the focus on performance, induced by the evaluative climate, can sabotage autonomous motivation in the conditions of individual learning, triggering boredom.

There are some limitations in the present research that we need to keep in mind when discussing the educational implications of the obtained results. One of these limitations is related to the fact that, while having a correlational study, we cannot conclude on the causal relationship between the variables, but we can only ascertain the associations between them. Another limitation concerns the assessment of the subjective dimension of the evaluation climate while excluding the objective one. However, literature shows that there is a significant correlation between these two dimensions (e.g., Brookhart & DeVoge, 1999). Moreover, students' perceptions of the assessment climate may turn out to be even a more important predictor than teachers' actual practices. A third limitation refers to the evaluation of students' emotions by self-report instruments, a certain period after these emotions were experienced. In order to reduce this bias, when applying the questionnaires, we activated the learning context before the baccalaureate examination through remembrance. In addition, we counted on the fact that feelings recollection is stronger in a context with significant emotional potential, as was the period of study for the baccalaureate exam. Further studies could investigate the role of the evaluative context in regulating achievement emotions, by using the experiment, as well as by exploring other relevant learning situations and other age categories.

6. Conclusions

Assessment is one of the educational acts bearing broad psychosocial implications reflected over time on the learning behaviour initiated by students in various contexts. The assessment climate mirrors the classroom teaching process, where teachers are

responsible for the choices they make regarding the frequency, forms, conditions, assessment criteria, strategies and means of instruction. These choices shed light not only on the teachers' principles and training strategies, but also on their knowledge of how the practices used influence the development of students' cognitive and motivational-affective system. The way the classroom objectives are structured, the contents taught, the feedback provided, the assessment tools as well as the relationship with the class are aspects that will create a certain evaluation climate, with effects on the motivation, academic performance and subjective well-being of students. Through his educational endeavours, each teacher contributes to the orientation of learning activities in terms of value and to the development of students' beliefs about the control they can have over school tasks and performance.

Students process and interpret classroom assessment events and develop perceptions about the importance, significance, and difficulty of assessment, which in turn can shape learning strategies, self-efficacy beliefs, autonomous motivation, achievement goals, and emotions. When students perceive the assessment task as difficult and less meaningful, and the assessment feedback as an indication of social comparison or socio-cultural norm, they are less likely to develop a high sense of effectiveness for the task, approach it with enthusiasm and use deep learning strategies. On the contrary, when students perceive the assessment task as enjoyable, meaningful, within the limits of their abilities, and the assessment feedback encourages mistakes as part of the learning process and not as a lack of skills, they are more likely to show a high level of involvement based on profound interests, self-efficacy, autonomy and the use of deep learning strategies. Therefore, teachers must constantly evaluate students, provide them with informative, specific and meaningful feedback, thus helping them to regulate their effort, as well as their cognitive-behavioural and emotional resources. When it comes to performance feedback, it is important not to overemphasize social comparison. The teacher's feedback on success and failure in learning, as well as on expectations and perceived values of future performance has effects on students' achievement emotions. The feeling of control that each student acquires through the appropriate messages of reinforcement is a tool for self-regulating the effort invested in a subsequent endeavour, as it represents a step forward towards gaining autonomy in learning.

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