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VALIDATION OF THE ROMANIAN VERSION OF EMOTIONAL REGULATION DURING TEST-TAKING SCALE ADAPTED TO THE CONTEXT OF EDUCATIONAL COMPETITIONS

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Abstract

The aim of our study was to translate and adapt the Emotion Regulation during Test-Taking Scale for the supposed context of educational competitions attended by high school students. We focused on some analyses necessary for its validation for the Romanian population. After translating and adapting the scale we used exploratory and confirmatory factorial analyses, those of internal consistency for each component subscale, we compared these data with those of the original instrument, and we analysed the way this construct relates to other similar but more general constructs. Thus, the results obtained by us support the fact that the scale has a solid factorial structure, both the four dimensions and the eight subscales have been maintained. The scale has undergone slight changes, by removing four items from two different subscales. Although the Task-focused Strategy Use subscale has shown an unsatisfactory internal consistency, the scale has met the conditions necessary to consider it as an acceptable one that can be used in studies concerned with emotional regulation strategies used by students in evaluative contexts.

Key words*:* educational competition context, emotion regulation strategies, factorial structure, psychometric properties, validation analyses

Introduction

In the educational environment as in any other social environment, people experience all sorts of emotions. Educational competitions are no exception to this rule. Educational competitions are designed to challenge students to demonstrate excellence in one or more academic disciplines at a level above that of a typical classroom setting or standardized testing. One of the activities

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organized in Romania to support young people with high abilities are the Olympics and the educational contests. Olympiads and contests are those school competitions structured on study disciplines / interdisciplinary and transdisciplinary areas of study, which have as their general objective the stimulation of students with high school performance or who have special interest and abilities in the scientific, technical-applicative, cultural-artistic field, civics and sports. Regardless of their field, these school competitions stimulate creativity and critical thinking, providing the necessary motivation in the learning process and provide support in identifying and developing talents, abilities and knowledge, thus contributing to the personal and professional development of students (MEN, 2017). As in any other academic environment, competitions are a context in which emotions manifest themselves with varying intensity and frequency, varying from one participant to another, being determined by several factors over which the literature interested in this issue has been constantly concerned.

2. Theoretical framework

2.1. Academic emotions

Pekrun and collaborators (2002a) defined academic emotions as "those emotions experienced in academic contexts and associated with learning and assessment activities". Such emotions, for example, relate to the pleasure of learning, the success offered, the anger manifested when the tasks received are too difficult or impossible to accomplish, or the test anxiety. In the past, academic emotions have largely been neglected in research in the field of psychology of education, except for test anxiety. Pekrun (2005) argued that student emotions are multiple and much richer in nature than some traditional points of view suggest. The most recent studies have classified academic emotions in terms of valence and activation (Pekrun, 2000; Pekrun et al., 2002a). Valence refers to the extent to which emotions are considered positive or negative. Activation refers to the extent to which emotions are physiologically activating (for example, optimism) or disabling (e.g., relaxation). Based on these dimensions, there have been identified four groups of emotions: positive activating emotions (e.g. joy, optimism, pride); positive deactivating emotions (e.g. relaxation, satisfaction, relief); negative activating emotions (e.g. anger, frustration, anxiety, shame); and negative deactivating emotions (for example, boredom, sadness, disappointment, despair).

In most of the conditions, positive activating emotions exert positive effects on performance (Pekrun et al., 2002a, Pekrun, Goetz, Perry, Kramer, & Hochstadt, 2004), while negative

deactivating emotions exert negative effects (Pekrun, 2006; Daniels et al., 2009), in contrast to positively deactivating and negative activating emotions, which are supposed to have ambivalent effects on cognitive motivation and processing (Pekrun, 2006; Ganotice, Datu, & King, 2016). The results of studies focused on the influence of emotions on the academic field have shown that affective states influence the motivational and cognitive processes that are relevant to cognitive performance. More specifically, it has been shown that mood and emotions facilitate the processes of congruent memory with mood (Olafson & Ferraro, 2001), suggesting that positive affective states can increase motivation in addressing tasks, while negative emotional states can increase motivation in avoiding them. Moreover, the results indicate that positive affective states favour more creative, flexible, and holistic ways of thinking, while negative emotional states induce a more analytical, detailed and rigid processing of information (Fiedler, 2001).

2.2. Emotional regulation in academic context

Emotional regulation can be defined as a set of processes through which people seek to redirect the spontaneous flow of their emotions. During emotional regulation, people can intensify, maintain or reduce positive and negative emotions. Therefore, emotional regulation often involves changes in the emotional response. These changes can occur in the type of emotions that people have when they live, or in the way of experimentation and expression of emotions (Gross, 1999). Emotions have several components, consisting of behavioural and physiological responses that are accompanied by specific thoughts and feelings (Mauss, Levenson, McCarter, Wilhelm, & Gross, 2005), and because emotional regulation acts on people's emotions, it results that emotional regulation effects can be observed on all emotional responses, including behavioural, physiological, or thoughts and feelings (Koole, 2009). Such efforts can be relatively automatic or controlled, conscious or unconscious. Because emotions are multicomponent processes that take place over time, emotional regulation involves changes in "the dynamics of emotion" (Thompson, 1990), or latency, growth time, magnitude, duration, and compensation for behavioural, experiential, or physiological responses. Emotional changes that are produced by emotional regulation may or may not bring people closer to the emotional state they want. Therefore, some forms of emotional regulation ironically result in very emotional states that people hoped to avoid (Wegner, Erber, & Zanakos, 1993) or, on the contrary, continue experimenting with undesirable emotions, despite their efforts to remove them.

Regarding the academic assessment context, some students can consciously engage in trying to reduce unpleasant feelings during evaluations, but the adoption of specific strategies may not necessarily produce the results they want (John & Gross, 2007). Otherwise conceptualized,

emotional regulation is one of the forms of regulation of affection that involves attempts to modify some aspects of the interaction between the individual and the environment, coded by the individual in a certain manner (Gross, Richards, & John, 2006). In terms of research in the academic field on emotions and emotional regulation, the subject that attracted attention was that of anxiety manifested in the evaluative context (Pekrun, Goetz, Titz, & Perry, 2002a, Schutz & Pekrun, 2007) in which students manage their anxiety during the examination process (Kondo, 1997). Although empirical evidence is limited, there is still a premise in the literature that emotions and emotional regulation are associated with academic performance, indirectly through motivation and involvement. Emotions have a substantial effect on the motivation, cognition and action of the students by orienting mental and physiological energy in accomplishing the tasks and by directing attention to the positive or negative aspects related to themselves and their tasks (Pekrun et al., 2002a). Indeed, there are results of studies that indicate that emotions are associated with academic motivation (Mega, Ronconi, & De Beni, 2014; Pekrun et al, 2002a), and dispositional affection is associated with the degree of involvement of students in the tasks (Linnenbrink-Garcia, Rogat, & Koskey, 2011).

2.3. Emotional regulation associated with evaluation

Emotional regulation associated with assessment involves a variety of processes used by students to monitor, evaluate, and modify their emotional experiences (Gross, 1999, Gross et al., 2006, Thompson, 1994; Schutz & Davis, 2000; Schutz & DeCuir, 2002). Students direct their efforts to achieving their own goals by influencing the type of emotions and their intensity. Effective emotional regulation therefore involves flexible strategies that can respond to the experienced situation and improve performance, the purpose of which is to direct the student towards achieving his or her goals. The current conceptualization of emotional regulation associated with evaluation involves four large dimensions, as follows: 1) Strategies/processes focusing on task-related assessment (Carver, Scheier, & Weintraub, 1989; Lazarus, 1991; Schutz & Davis, 2000 apud Schutz et al., 2004); 2) Strategies/processes focusing on emotion associated with evaluation (Carver et al., 1989; Lazarus, 1991; Schutz & Davis, 2000; Schutz & DeCuir, 2002 apud Schutz et al., 2004); 3) Strategies/processes for regaining focus on the task associated with the evaluation (Schutz et al., 2004); and 4) Cognitive appraisal strategies/processes associated with the transaction between the person's objective and the environment (Boekaerts, 2001; Ellsworth & Scherer, 2003; Frijda, 1993; Lazarus, 1991; Roseman, 1991; Scherer, 1993; Schutz & Davis, 2000; Schutz et al., 2008).

2.4. Developing the Emotional Regulation during Test-Taking Scale (ERT)

To measure in a valid and reliable manner the emotional regulation during the evaluation process, Schutz and his collaborators developed Emotional Regulation during Test-Taking Scale (ERT, 2008) which presents at least four improvements compared to existing tools on measuring general strategies of coping. The first improvement is to include the subscale for measuring cognitive appraisal strategies. Apart from a few such attempts (e.g. Boekaerts 2001 apud Schutz et.al, 2008), most of the instruments on emotion regulation or coping did not include items related to the way in which students evaluate the person-environment transaction. If potential emotions arise along with student appraisals in relation to this transaction, then potential emotional regulation starts at that point.

A second improvement of the ERT is that it is a scale of a specific context, more precisely, the measurement of emotional regulation during the evaluation process. One of the problems of current research on emotional regulation is that current tools are too general to refer to more comprehensive concepts (Schutz et al., 2004). A third improvement refers to the fact that this tool may address the lack of research into processes during evaluations. Currently, most researches have focused on what happens before and after evaluation (e.g. Scherer, 1993). Typically, studies on emotional regulation attempts during the evaluations were avoided due to methodological and ethical constraints. Finally, most research on evaluation process in the academic context tended to look at emotional regulation from the perspective of coping. Focusing on coping reflects the idea that evaluations are a good way to study how a student is managing a stressful situation. However, assessment situations also have a potential to experience more pleasant emotions that have not been investigated from the perspective of coping (Schutz et al., 2004).

2.5. Preliminary studies using ERT

Initial attempts in developing the instrument were aimed at understanding the dimensional relationship within it. So far, 5 studies have been carried out to develop and refine this scale. The first three studies, based on a population of 771 students (N = 353 for Study 1, N = 388 for Study 2, and N = 30 for Study 3), led to its adjustment through univariate analyses, item analyses and exploratory factors analyses, and of its initial subscales (Schutz, Di Stefano, Benson, & Davis, 1999). These studies led to a scale of 43 items, comprising 4 dimensions and 8 subscales. The major change to the original three-dimensional version is the introduction of the fourth dimension, Regaining Task-focusing Processes, which includes two subscales. This dimension refers to students' attempts to refocus their attention on workload, and not being a dimension that would appeal to task-focusing processes or emotion-focusing processes.

A fourth study (N = 505 students) presents a new attempt to refine the instrument and validate it, both through exploratory and confirmatory factorial analyses, and in relation to similar and general concepts. This study led to a form of ERT consisting of 43 items, 4 dimensions and 8 subscales. A final study (N = 425 students) was concluded by defining a scale of 34 items, resulting from exploratory, confirmatory, as well as external validation analyses. The removal of items from the initial scale is supported by the analyses made and mainly by the similarity in the formulation of some of the items.

2.6. Translating and adapting Emotional Regulation during Test-Taking Scale (ERT)

We started the adaptation of the ERT Scale (Schutz et al., 2008) by translating the original instrument into Romanian. It was simultaneously translated by three people, graduates of the Faculty of Psychology and Education Sciences and having English language knowledge. Based on their comments, the final form of the questionnaire was established, so it includes the corrections and suggestions imposed by the semantic differences identified by each translator. The answer type of the items refers to the frequency with which respondents use that type of strategy, and there is a 5-point Likert response format with the following anchor labels 1 = "Almost Never", 3= "Sometimes", and 5 ="Almost Always".

2.7. Organization of dimensions and subscales

Task-focusing Processes

Coping refers to a specific form of emotional regulation that occurs when preparing, confronting and managing unpleasant emotions associated with a threatening event. In the literature of test anxiety, the term coping was used because the evaluative situation is supposed to provide an opportunity to study how students face stressful situations (Oaten & Cheng, 2005).

Task-focusing Processes involves a form of coping, or what we are referring to as the emotional adjustment associated with the event. The key element of this dimension is the student's attempt to acquire and maintain focus on the task. Thus, at this point, the student is thinking about the activities through which he can maintain his focus on the evaluation and tasks he must accomplish during the evaluation. Such a strategy could be the management of the time or the identification of the task's main idea (Schutz et al., 2004).

Emotion-focusing Processes

The second dimension of emotional regulation is represented by the processes focused on emotions felt during the evaluation. These involve a focus on the self and the emotions associated

with work tasks. Thus, they can be experienced through moments of detachment from the task and a focus on emotions (pleasant or unpleasant). ERT's research has identified two key emotion-focusing processes: the wishful thinking, which refers to the student's desire for the task simply to disappear or the hope that the teacher/evaluator will not take into account the results obtained; and self-blame, which involves the criticisms that learners bring to their own person about how they are doing during the evaluation or about how they have prepared for that assessment (Schutz et al., 2004).

Regaining Task-focusing Processes

The third dimension of emotional regulation associated with the evaluative context involves attempts to regain focus on the task (Schutz et al., 2004, 2008). Such a strategy could be the student's attempt to reduce the tension experienced during the assessment by adjusting the breathing rate or by giving himself a minute break, which may prevent or stop irrelevant thoughts about the task he must achieve. The potential utility of trying to reduce tension is in helping to change the focus from the self and feelings about how he is doing during the assessment back to taking the test/ exam. Another subscale of this dimension refers to reappraisal strategies about the importance attached to the evaluation. These strategies imply the student's attempts to maintain active the importance of the evaluation or to highlight its positive aspects. Such a strategy could be to keep the importance of evaluation in perspective and comparing it with other aspects of one's life (Schutz et al, 2004, 2008).

Cognitive-appraising Processes

In the specific field of the evaluative context, Schutz (2004, 2008) indicates that there are four key types of appraisals that are associated with the type of emotions emerged during an academic assessment. The first type refers to the importance or goal relevance of the assessment objective. Lazarus (1991 apud Schutz et al., 2004) refers to importance as a primary appraisal and considers it to be a key appraisal in emotional processes. For example, if a student appreciates that evaluative situation as being not very important, an emotional experience is unlikely to occur. A second type of key appraisal refers to the congruence of the perceived objective. At this point the student wonders whether what happens during the evaluation is congruent with the achievement of his future goals. If the answer to this question is a negative one, then the objective is incongruent, and this will trigger negative emotions such as anger or anxiety. If the answer to this question is affirmative, then the objective is a congruent one, and this will cause experimentation of positive emotions such as joy or pride (Smith, 1991; Smith & Ellsworth, 1987; Schutz & Davis, 2000; Schutz & DeCuir, 2002 apud Schutz et al., 2004, 2008).

Another process is included in these strategies, namely the agency, or the student's judgment of who controls or who caused what is happening. These judgments made by the student will influence the emotional experience during the evaluation process. Schutz (2004, 2008) draws a parallel of these processes with the problem of locus in Weiner's Theory of Attribution (1994). In this situation, the extent to which the students appreciate the evaluation as being relevant to their objective and someone else is responsible for the way the evaluation is conducted is important. For example, if the student thinks that the evaluation is not going well and considers someone else's fault, it will most likely cause the student to experience anger. Another example provided by Schutz (2004) refers to the situation where the student will consider that evaluation to be relevant to the proposed objective, but which does not perform so well, and if he considers this to be the case for his own fault then the student will experience the feeling of guilt.

A last type of key appraisal refers to the efficacy in solving problems during the evaluation process or the potential in managing any issue that may arise during the evaluation. Schutz (2004) reminds about "expectances" (Eccles, 1983; Wigfield & Eccles, 1992) or "self-efficacy" (Bandura, 1986, 1997). These processes relate to how students respond to questions about their ability to cope with the difficulties that occurred during the evaluation process.

By translating the scale, it has also been adapted to the evaluation contexts we refer to, namely, we wanted to adapt this scale to measure the emotional regulation strategies used by students during the contests from the national and international educational competitions in which they take part each year. Thus, Emotion Regulation during Test-Taking is a questionnaire designed to measure the level of selection and application of emotional regulation strategies in evaluative contexts. Its adaptation consisted in modifying some terms referring to the school context with others referring to educational competitions. Thus, in the items in which the term "test" was present, the substitution was made by using "competition". This refers to existing educational competitions at national and international level through the form of olympiads or interdisciplinary competitions.

With respect to the items of the Goal Congruence subscale, the items have been modified, adapting the context of their applicability. Thus, in the original version, they refer to the importance of grades obtained by students because of given tests, and to their perception of what it means to be a "good student". Therefore, they were rethought and adapted to the context of the competitions, in view of the importance their results would have on their personal and professional lives.

The objective of our study is to translate and adapt the Emotional Regulation during the Test-Taking Scale to the evaluative context of the educational competitions attended by high school students. Thus, we want to investigate the way in which items will be distributed within each subscale and dimension of the instrument, the internal consistency of each dimension, the fit indexes of the instrument, its power to discriminate according to the gender variable, and the way this construct relates with other similar but more general constructs. Thus, we will use more statistical analyses to determine these characteristics of the validated instrument, such as Alpha Cronbach's internal consistency analysis, exploratory factorial analysis, confirmatory factorial analysis, multivariate variance analysis (MANOVA), and the analyses required to achieve convergent external validity.

3. Method

3.1. Participants

The participants of this study are represented by undergraduate high school students, grades IX-XII, with ages between 15 - 19 (N = 253, 114 males and 139 females, M = 16.91, SD = 1.18) across the country, participants at national and / or international educational competitions (Olympics, disciplinary/interdisciplinary competitions) that have won or not various awards / medals. They are selected from the public lists of the results of national and / or international competitions held in the current school year. The selected students participated in the following Olympics: Romanian Language and Literature, English, French, Italian, Portuguese, Spanish, Reading as Life Skills, Socio-Human Sciences, Religion, Geography, History, Mathematics, Biology, Informatics, Physics, Chemistry.

3.2. Instrument

Emotional Regulation during Test-Taking Scale (Schutz et al., 2008) consists of four dimensions: 1) Task-focusing Processes associated with the evaluation process; 2) Emotion-focusing Processes associated with evaluation process; 3) Regaining Task-focusing Processes associated with evaluation; and 4) Cognitive-appraising Processes associated with the transaction between the person-directed goal and the environment. Each dimension comprises one or more subscales as follows:

• The Task-focused Processes dimension includes the Task-focused Strategy Use subscale;

• The Emotion-focusing Processes dimension includes Wishful Thinking subscale and Self-blame subscale;

• The Regaining Task-focusing Processes dimension includes Importance Reappraisal subscale and Tension Reduction subscale;

• The Cognitive-appraising Processes dimension includes Goal Congruence subscale, Agency subscale and Testing Problem-Efficacy subscale.

The answer to the questionnaire items refers to the frequency with which respondents use that type of strategy and is a 5-point Likert response format with the following anchor labels 1 = "Almost Never", 3= "Sometimes", and 5 ="Almost Always".

COPE Inventory (Carver et al., 1989) is a multidimensional scale that aims to evaluate the different ways people respond to stress. Five of the scales measure different aspects of problem-focused coping (Active coping, Planning, Suppression of competing activities, Removed Coping, Use of instrumental social support), five subscales measure aspects related to emotion (Use of emotional social support, Positive reinterpretation and growth, Acceptance, Denial, Religious coping) and three scales to measure responses such as Less Useful Coping (Focus on and venting of emotions, Mental disengagement and Behavioural Disengagement). The inventory consists of 60 items, and the response type is in the form of a 4-step Likert scale, where 1 – "I usually do not do that at all", 2 – "I usually do that to some extent", 3 - <I usually do this to a moderate extent ", and 4 – "I usually do that often".

The Emotion Regulation Questionnaire (ERQ, Gross & John, 2003), composed of 10 items on two scales that measure the usual use of reappraisal and suppression. The results presented in the literature indicate that ERQ is a valid tool to measure individual differences in reappraisal and suppression. In recent years, this tool has been translated and adapted in many languages with all these versions having acceptable internal consistency indicators for the suppression and reappraisal scales. The answer to the items of the questionnaire refers to the level of agreement with the statements made in the items and is noted on a Likert scale with 7 points, where 1 means "strong disagreement" and 7 represents "strong agreement" with the statement. For calculating the final score for each scale, the arithmetic mean of the scores corresponding to the scale is calculated. Alpha Cronbach's internal consistency coefficients of scales translated into Romanian were .741 for reappraisal, and .728 for suppression.

Results

Emotional Regulation during Test-Taking Scale consists of four dimensions: Task-focusing Processes, Emotion-focusing Processes, Regaining Task-focusing Processes, Cognitive-appraising Processes. For each of these, the internal consistency of subscales was computed as follows:

- Task-focusing Processes Dimension: Task-focused Strategy Use (Alpha Cronbach = .566)
- Emotion-focusing Processes Dimension: Wishful Thinking Subscale (Alpha Cronbach = .720) and for Self-blame Subscale (Alpha Cronbach = .868)
- Regaining Task-focusing Processes Dimension: Importance Reappraisal Subscale (Alpha Cronbach =.643) and for Tension Reduction Subscale (Alpha Cronbach = .810)
- Cognitive-appraising Processes Dimension: Goal Congruence Subscale (Alpha Cronbach =.656), for Agency Subscale (Alpha Cronbach = .823), and for Testing Problem-Efficacy Subscale (Alpha Cronbach = .821).

The internal consistency for the entire Emotional Regulation during the Test-Taking Scale was an acceptable one (Alpha Cronbach = .706). Compared to the version of the original instrument (Schutz et al., 2008), relatively different results were obtained with respect to the internal consistency for each of the existing subscales. Thus, for some of these - Alpha Cronbach's Wishful Thinking Subscale and Self-Blame Subscale was of .79 and .84 respectively (and in our version they were .72 and .86). For Importance Reappraisal Subscale and Tension Reduction Subscale, Alpha Cronbach = .68 and .74 respectively (in our version were .64 and .81) were obtained in the original version of the instrument. For Goal Congruence Subscale, Agency Subscale, and Testing Problem-Efficacy Subscale, the original version obtained Alpha Cronbach values of .72, .79 and .75 respectively (and in this case, we obtained Alpha Cronbach values of .65 , .82 and, respectively, .82). For the Task-focused Processes Dimension, whose single Task-focused Strategy Use subscale obtained in the original version an Alpha Cronbach = .64, in our case it had a value of .56.

We note that the major differences between the two versions of the scale are noticeable for subscales that measure the importance that subjects allocates to the evaluation. Thus, the original questionnaire is intended for the classroom evaluative context, and in our case, it has been adapted to the evaluative context of the educational competitions to which the subjects take part. These competitions, (local, county, national, international) Olympiads and contests, are considered extracurricular activities. The school disciplines refer to compulsory instructional-

educational activities, whose evaluations are being tested with the marks necessary for promoting the respective discipline, and the school year in general. Therefore, we can assume that subjects, participants in extra-curricular educational competitions, attach less importance to the results obtained within them compared to those obtained in the formal context. Also, the fact that the results of the Goal Congruence Subscale scale are lower than those of the original instrument can be explained from the same perspective, namely that the subjects participating in the educational competitions consider that their results are to a lesser extent consistent with their professional objectives. Instead, for a student to progress to a higher level in educational training, he / she must promote all disciplines included in the national curriculum. That is why we assume that students perceive formal (school) evaluations as more consistent with their professional goals compared to extra-curricular evaluations. Instead, the internal consistency coefficient for the Task-focused Strategy Use subscale is low in both versions of the questionnaire. In the original version, it is .64, compared to the version obtained after applying the translated version and adapted to the evaluative context of the educational competitions (where Alpha Cronbach = .56). This may lead us to conclude that participants of educational competitions do not use this type of strategy during contest examination. In exploration factorial analysis, the SPSS (Statistical Package for the Social Sciences) version 20 was used. The extraction method used in this case is Principal Axis Factoring, through which we will make an initial estimate of the common variance in which communities have the lower value of 1. Rotation refers to the way of rotation of the variation space so that the variance is distributed optimally among the factors. Oblimin rotation is a general form to obtain the oblique rotations used when factors are expected to correlate, the aspect targeted by performing this analysis. In this case, the exploratory factorial analysis performed by the extraction method used generated a structure represented by four factors, using the K1 Method (Kaiser), by which we retained the factors whose eigenvalue ≥ 1. Thus, because of the analysis, one of the items of the Agency subscale was removed ("I control how well I perform in a competition") because it presented loads on two factors. In the case of Wishful Thinking and Self-Blame subscales, all original items were retained, retaining their distribution on each factor. In the case of the Task-focused Strategy Use subscale, three items were removed ("I work harder to find the main idea in the questions", "I try to rephrase the questions with which I have problems into my own words", and “I block out the distracting thoughts by focusing on the competition tasks."), because they presented community below .30. The distribution of items for each dimension and subscale is shown in Appendix 1. In performing the confirmatory factorial analysis, the AMOS version 20 program was used, analysing each of the four dimensions and the corresponding subscales Table 1).

Table 1. The fit indices for each dimension of the scale

	χ^2	df	χ^2 /df	RMSEA	CI	CFI	TLI
Emotion-focusing Processes Dimension *(two subscales)*	49	19	2.6	0.7	.05 - .10	.96	.92
Regaining Task-focusing Processes Dimension *(two subscales)* Task-focusing Processes Dimension *(one subscale)*	106	41	2.6	.07	.06 - .09	.90	.90
Cognitive-appraising Processes Dimension *(three subscales)*	100	41	2.4	.07	.05 - .09	.93	.90
Entire Model	613	377	2.1	.05	.04 - .05	.90	.90

RMSEA- Root Mean Square Error of Approximation
CIA – Confidence interval for RMSEA
CFI – The Comparative fit Index

Compared to the original instrument (Schutz et al., 2008), there are some variations of fit indices for each of the dimensions (Table 2). The major difference is that we analysed the Task-focusing Processes Dimension (with one subscale) together with the Regaining Task-Focusing Processes Dimension (two subscales), as was the case with exploratory factorial analysis. This method was chosen because the Task-focusing Processes Dimension was composed of a single subscale, and after exploratory factorial analysis it contained only 3 items.

Table 2. The fit indices for Emotion Regulation during Test-Taking Scale (Schutz et al., 2008)

	χ^2	df	χ^2 /df	RMSEA	CI	TLI
Emotion-focusing Processes Dimension *(two subscales)*	42	19	2.21	0.5	.03 - .08	.97
Regaining Task-focusing Processes Dimension *(two subscales)*	68	19	3.58	.08	.06 - .10	.90
Task-focusing Processes Dimension *(one subscale)*	26	9	2.89	.07	.04 - .10	.89
Cognitive-appraising Processes Dimension *(three subscales)*	106	51	2.08	.05	.04 - .06	.95

RMSEA- Root Mean Square Error of Approximation
CIA – Confidence interval for RMSEA
CFI – The Comparative fit Index

To determine whether Emotional Regulation during the Test-Taking Scale falls within similar constructs, the external relations between ERT and two similar constructs have been investigated. Thus, to verify the existence of possible relationships and their type, the following constructs

were selected: 1) Emotion Regulation Questionnaire (Gross & John, 2003) composed of two scales that measure the usual use of reappraisal and suppression; 2) Coping measured by seven subclasses of the general coping scale (COPE Inventory, Carver et al., 1989). The hypothesis from which we started was that ERT scales will correlate with ERQ scales, and with COPE scales. As far as the COPE subscales are concerned, we chose 7 of them (according to the model of validation used by Schutz et al., 2004), namely: Planning, Suppression of competing activities, Use of instrumental social support, Use of emotional social support, Acceptance, Focus on and venting of emotions, and Denial. We also expect the ERT to correlate to a small extent with ERQ and COPE, due to the ERT construction targeting a specific context (the evaluative context), while ERQ and COPE are two tools that refer to a more general domain. In Table 3 we present the correlations identified between these scales.

Table. 3 Correlations between dimensions and subscales of Emotion Regulation

	(1)	***(2)***	***(3)***	***(4)***	***(5)***	***(6)***	***(7)***	***(8)***	***(9)***	***(10)***	***(11)***	***(12)***	***(13)***
(1) Emotion-focusing Processes	-	.185**	.144*	-.431**	.123*	-.077	.235**	.080	-.068	.325**	-.096	.142*	-.097
(2) Task-focusing Processes		-	.310**	.022	.103	.231**	.073	.057	.139*	.106	.141*	.243**	.226**
(3) Regaining Task-focusing Processes			-	.105	.031	.420**	.141*	.114	.169**	.048	.215**	.242**	.356**
(4) Cognitive-appraising Processes				-	.038	.237**	-.200**	-.036	.130*	-.129*	.176**	-.004	.238**
(5) Suppression					-	.192**	-.352**	-.424**	-.277**	.152*	-.018	.147*	.048
(6) Cognitive Reappraisal						-	-.002	.056	.240**	.049	.269**	.295**	.383**
(7) Focus on and venting of emotions							-	.491**	.322**	.147*	.038	.178**	.018
(8) Use of emotional social support								-	.669**	.073	.096	.136*	.190**
(9) Use of instrumental social support									-	.008	.172**	.270**	.366**
***(10)* Denial**										-	-.156*	.120*	-.196**
***(11)* Acceptance**											-	.129*	.316**
***(12)* Suppression of competing activities**												-	.508**
***(13)* Planning**													-

*p<0.05 **p<0.01

We note that the following correlations have been identified following the analyses: Emotion-focusing Processes (ERT) and Suppression (ERQ) scales show a significant positive correlation ($r = 0.12$, $df = 251$, $p < 0.05$), and Emotion-focusing Processes (ERT) and Focus on and Venting of Emotions (COPE) scales shows a significant positive correlation ($r = 0.23$, $df = 251$, $p < 0.01$), Task-focusing Processes (ERT) and Planning (COPE) scales show a significant positive correlation ($r = 0.12$, $df = 251$, $p < 0.01$), Regaining Task-focusing Processes (ERT) and Suppression of Competitive Activities (COPE) scales show a significant positive correlation ($r = 0.24$, $df = 251$, $p < 0.01$). Cognitive-appraising Processes (ERT) and Cognitive Reappraisal (ERQ) scales show a significant positive correlation ($r = 0.22$, $df = 251$, $p < 0.01$), Cognitive-appraising Processes (ERT) and Acceptance (COPE) scales show a significant positive correlation ($r = 0.17$, $df = 251$, $p < 0.01$), Cognitive-appraising Processes (ERT) and Planning (COPE) scales show a significant positive correlation ($r = 0.23$, $df = 251$, $p < 0.01$). Also, the correlations between the total scores of the three instruments were analysed, and the following results were found: ERT total scores correlate positively with the ERQ total scores ($r = 0.32$, $df = 251$, $p < 0.01$) and those of the COPE scale ($r = 0.31$, $df = 251$, $p < 0.01$) (Table 4).

Table 4. Existing correlations between total scores of Emotional Regulation during Test-Taking Scale (translated and adapted version), Emotion Regulation Questionnaire (Gross & John, 2003) and COPE Inventory (Carver et al., 1989)

	(1)	**(2)**	**(3)**
ERT	-	.321**	.309**
ERQ		-	.067
COPE Inventory			-

**p<0.01

To identify gender differences in the use of emotional regulation strategies during participants' educational competitions, we used a multivariate variance analysis (MANOVA). Dependent variables were Task-focusing Processes, Emotion-focusing Processes, Regaining Task-focusing Processes, and Cognitive-appraising Processes. MANOVA demonstrated that there was a significant multivariate effect of gender on the four dependent variables (Pillai $F_{4,248} = 4{,}05$, $p < 0{,}05$, $\eta^2 = 0.06$).

Each dependent variable was subjected to an ANOVA analysis to demonstrate whether this trend is similar to taking each of the dependent variables separately. When measuring the difference between female and male subjects in Task-focusing Processes, ANOVA analysis

showed that overall there was a significant difference in the mean ($F_{1,251} = 6.6$, $p < 0,05$, $\eta^2 = 0.03$) and Regaining Task-focusing Processes variable ($F_{1,251} = 9.18$ $p < 0,05$, $\eta^2 = 0,03$). With respect to the Emotion-focusing Processes and Cognitive-appraising Processes variables, there were no significant differences between the two groups.

Regarding the differences in the two scales, t tests for independent samples were used to identify differences between female and male subjects. Thus, in the Task-focusing Processes scale, mean scores for female subjects (M = 12.5, SD = 2.0) are significantly higher (t = -2.5, df = 251, p<0.05) than those of male subjects (M = 11.8, SD = 2.1). In the case of the Regaining Task-focusing Processes, the mean scores of the female subjects (M= 27.7, SD = 6.1) are significantly higher (t = - 3.03, df = 251, p <0.05) than those of male subjects (M = 25.6, SD = 5.3).

Discussions and conclusions

Our objective was to translate and adapt the original version of the Emotion Regulation during Test-Taking Scale (Schutz et al., 2008) for the evaluative context of the educational competitions attended by the Romanian high school students. At the beginning of this approach, we reminded that the authors of 5 independent studies worked on the construction and validation of this scale, the version taken over by us, being the last published to date, and having undergone changes in its structure. First, we have adapted the scale to the context of educational competitions, replacing the terms of "test" and "marks" with "competition" and "prizes/results". Also, based on the exploratory factorial analysis, we decided, considering the data analysis and based on the results of the communality of the items, that it was necessary to quit three of the Task-focused Strategy Use subscale items and one of the items from the Agency subscale. Thus, we have obtained the final form of the instrument, which corresponds to the requirements to support the validity and the psychometric properties necessary for its use. What is noteworthy regarding the scales of the questionnaire is that one of them (Task-focused Strategy Use subscale which also represents the Task-focusing Processes dimension) obtained a very low Alpha Cronbach consistency coefficient (.56), compared to the original version (Schutz et al., 2008) (.64). In the version of the instrument validated in 2004, this subscale obtained an Alpha Cronbach coefficient of .57. Also, in achieving a translation and adaptation of the ERT scale in Turkey, this subscale obtained, as in our case, a low Alpha Cronbach (.50 and .52 in a second study) (Emmioglu & Aydin, 2008).

As far as the results of the confirmatory factorial analysis of the final version translated and adapted in Romanian, the results obtained slightly varied compared to the ERT original version (Schutz et al., 2008). This was done for each dimension as well as for the whole model, with

satisfactory fit indices. Considering that the ERT is a tool built to measure the degree of use of various emotional regulation strategies in the evaluative context, a measure of the level of emotional regulation strategies has been carried out in more general areas. Our objective was to verify the construct by analysing possible existing relationships between emotional regulation from a specific context and other similar constructs. Thus, two tools have been selected (Emotion Regulation Questionnaire, Gross & John, 2003 and COPE Inventory, Carver et al., 1989) for checking correlations between their constructs. Thus, we identified significant positive correlations between similar scales. For example, between Emotion-focusing Processes (ERT) and Suppression (ERQ) scales, Emotion-focusing Processes (ERT) and Focus on and venting of emotions (COPE) scales, Task-focusing Processes (ERT) and Planning (COPE) scales, Regaining Task-focusing Processes (ERT) and Suppression of competing activities (COPE) scales, Cognitive-appraising Processes (ERT) and Cognitive Reappraisal (ERQ) scales, Cognitive-appraising Processes (ERT) and Acceptance (COPE) scales, and Cognitive-appraising Processes (ERT) and Planning (COPE). Also, positive correlations were found between the total scores of the three instruments used (Romanian version of ERT, ERQ and COPE Inventory). This identified aspect supports the fact that the construct measured by ERT referring to the emotional regulation strategies used in a specific context (the evaluative) presents positive relationships with other more general but similar constructs, thus supporting the hypothesis that the instrument under analysis respects the criteria of the required validity.

At the end of the analysis, we wanted to check whether the Romanian version of the Emotion Regulation during Test-Taking Scale has a discriminating power within a group. Thus, we wanted to identify the gender differences in the emotional regulation strategies used by high school students during educational competitions by using multivariate variance analysis (MANOVA). The results argue that the instrument has a power to discriminate within a group. Thus, there were significant gender differences in the Task-focusing Processes and Regaining Task-focusing Processes variables, meaning that female subjects use these types of strategies during educational competitions to a greater extent compared to male subjects. In conclusion, the results obtained from the various statistical analyses support the solidity of the Emotion Regulation during Test-Taking Scale (Schutz et al., 2008) translated and adapted to the evaluative context of the educational competitions involving the Romanian high school students from the point of view of the measured structure, the internal consistency and the factorial structure.

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Appendix 1. Distribution of items for each dimension and subscale of Emotion during Test-Taking Scale (adapted after Schutz et al., 2008 version)

- Task-focusing Processes Dimension:

Task-focused Strategy Use Subscale

I look for the answers to question I am having problems with in other questions.

I eliminate answers that I know are incorrect.

I try to answer the test question by picturing where it is in my notes or reading materials.

- Emotion-focusing Processes Dimension:

Wishful Thinking Subscale

I hope a miracle will occur during the competition.

I find myself wishing the competition was over.

I hope an answer will pop into my head.

I hope the judge decides to throw out some questions.

Self-blame Subscale

I criticize myself for what is happening to me during the competition.

I get angry with myself for not knowing the material.

I lecture myself about how I should have studied differently.

I get upset with myself for not being better prepared.

- Regaining Task-focusing Processes Dimension:

Importance Reappraisal Subscale

I remind myself that this competition it's just one of the next ones.

I try to keep the competition’s importance in perspective with other things in my life.

I tell myself that high-competition scores are not very important.

I remind myself that competitions can’t show everything I have learned.

Tension Reduction Subscale

I try to clear my head.

I try to calm myself.

I take a deep breath.

I take a minute to relax

- Cognitive-appraising Processes Dimension:

Goal Congruence Subscale

I would do a lot better in competitions if there were no prizes. (R)

My competition results are getting in the way of my future career. (R)

My results on competitions lower my view of myself as a good student. (R)

I don't do well on competitions. (R)

Agency Subscale

I am responsible for my own competition results.

It is my own fault if I don't do well on a competition.

My performance on a competition is up to me.

Testing Problem-Efficacy Subscale

I can deal with whatever happens during competitions.

I can usually figure out how to answer difficult tasks.

I am confident that I can deal with unexpected tasks on competitions.

If I get confused during a competition, I can usually reason my way out of it.

*R – Reverse item