

# PROBLEMS OF COGNITIVE STRATEGIES AND EMOTIONAL REGULATION OF TEACHERS IN MODERN EDUCATION

## PROBLEMAS DE ESTRATÉGIAS COGNITIVAS E REGULAÇÃO EMOCIONAL DE PROFESSORES NA EDUCAÇÃO MODERNA

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estratégias cognitivas e a autorregulação emocional. O uso de estratégias cognitivas ou supressão expressiva de emoções pelos professores está associado às suas diferentes qualidades. A relação entre auto-regulação adequada da emoção e estratégia cognitiva é mais significativa do que a supressão expressiva ( $p=0,001$ ). A reavaliação cognitiva foi positivamente correlacionada com extroversão, amabilidade, abertura à experiência e estado de alerta, enquanto a supressão expressiva foi negativamente correlacionada com neuroticismo, extroversão e abertura à experiência. A reavaliação cognitiva correlaciona-se significativamente ( $p=0,5$ ) com a inteligência emocional, incluindo a capacidade dos professores de gerir as suas próprias emoções. A abordagem do problema por esse lado, segundo os professores, não deve expressar abertamente suas emoções aos professores. Existe uma relação positiva

**Abstract:** The article examines the manifestations of cognitive strategies and emotional regulation of teachers. The study involved 64 teachers who teach at different faculties and have different academic backgrounds. Research shows that age also changes cognitive strategies and emotional self-regulation. The use of cognitive strategies or expressive suppression of emotions by teachers is associated with their different qualities. The relationship between adequate self-regulation of emotion and cognitive strategy is more significant than expressive suppression ( $p=0.001$ ). Cognitive reappraisal was positively correlated with extraversion, agreeableness, openness to experience, and alertness, while expressive suppression was negatively correlated with neuroticism, extraversion, and openness to experience. Cognitive reassessment significantly ( $p=0.5$ ) correlates with emotional intelligence, including the ability of teachers to manage their own emotions. The approach to the problem from this side, according to teachers, should not openly express their emotions to teachers. There is a significant positive relationship between cognitive strategies and overall resilience, attractiveness, control, and life risk. (at  $p=0.01$  and  $p=0.5$ ). In the strategy of expressive suppression, attitudes are biased.

**Keywords:** Modern education. Teachers. Emotional regulation. Cognitive strategies.

**Resumo:** O artigo examina as manifestações de estratégias cognitivas e de regulação emocional de professores. O estudo envolveu 64 professores que ensinam em diferentes faculdades e têm diferentes formações acadêmicas. Pesquisas mostram que a idade também altera as

significativa entre estratégias cognitivas e resiliência geral, atratividade, controle e risco de vida. (em  $p=0,01$  e  $p=0,5$ ). Na estratégia de supressão expressiva, as atitudes são tendenciosas.

**Palavras-chave:** Educação moderna. Professores. Regulação emocional. Estratégias cognitivas.

## 1. Introduction

The increase in socio-psychological problems of the change of values among young people in education makes it necessary to experience a new aspect of modern education. It also requires teachers to consider their emotional strategies in their approach to students (Aliyeva and Jabbarov, 2020). From this point of view, the problem of emotional regulation is one of the most important psychological and pedagogical problems relevant to personal and professional development. Significant psychological stresses in professional activities in the system of “human-human” relations contribute to the development of professional stress, mental fatigue and disorganized behavior. (Andreyeva, 2008).

Teaching is an emotionally challenging profession, sometimes resulting in high levels of teacher stress, exhaustion and attrition. It is often claimed that certain emotion regulation strategies can reduce teachers' feelings of exhaustion. The use of cognitive reappraisal (i.e., cognitively altering the emotional impact of a situation) is generally associated with positive outcomes, whereas the use of expressive suppression (i.e., inhibition of emotional responses) typically leads to negative outcomes (Donker et al., 2020).

The impact of emotional stress on young teachers is particularly great. According to research results, “emotional exhaustion” syndrome begins to develop among students even during their studies at the university, if systematic work is not carried out to prevent it among future teachers (Andreyeva, 2003). At the same time, levels of self-actualization are differentiated in both teachers and students, as well as in educational entities of various professions who are frequently traumatized and rarely traumatized, the negative impact of trauma on their level of emotional resilience and academic achievement increases (Jabbarov, 2017). From this point of view, it should be taken into account that professional position forces the teacher to make informed decisions, overcome frustration, despair and control outbursts of anger. However, external protection of emotions does not reduce the intensity of the emotional process and does not contribute to psychological and physical health. On the contrary, the impossibility of psychological processing of emotions contributes to the development of their physiological component, the possibility of causing various psychosomatic diseases increases. Often repeated unpleasant emotional situations lead to the consolidation of negative personal qualities such as

nervousness, anxiety, pessimism, which in turn negatively affects the effectiveness of the teacher's work, relationships with children and colleagues. In the future, this may lead to general dissatisfaction with the profession. (Semyenova, 2002).

In modern times, mastering the skills of emotional self-regulation seems to be especially relevant for the improvement of the psychological culture of teachers. In this regard, the ability to manage emotions is a component of emotional intelligence (EI), a set of mental abilities to process emotional information and an important indicator of the level of its development. Numerous studies show that the impact of teachers' emotional regulation strategies on students' academic achievements is different, and the role of national and cultural factors is undeniable. In this aspect, the main goal of our research is to study the effect of teachers' emotional regulation strategies on the academic achievement of the requirements. Certainly, certain aspects of the problem have been studied systematically. However, its results in the process of choosing or using emotional regulation strategies have not been studied comprehensively. During emotional dysregulation, various strategies can create different manifestations in learning activities. From this point of view, the main task in our research is to determine which strategies increase academic achievement in the requirements. We believe that such an approach may lead to the development of specific recommendations and practical applications.

## **2. Literature review**

The integration of emotions with cognitive processes plays a major background role in decision making, and also plays an important role in organizing learning, changing academic achievement, and building teacher-student relationships (Hargreaves, 2000; Hamre and Pianta, 2009). ; Turner et al., 2003). Based on this principle, it can be noted that cognitive strategies and emotional regulation are of equal importance. A number of researchers, including Hargreaves (1998), argue that good teaching generates positive emotions and that good teachers demonstrate their passion while teaching, which in turn motivates students (Hargreaves, 1998).

A number of experimental studies show that teachers' repetitive positive emotions create flexible and creative learning strategies that stimulate student motivation, create the basis for enhancing their academic achievement and building cognitive motivation (Frenzel et.al, 2009). Surely the creative content of the repetition of positive emotions is understandable, and the opposite is also true. That is, it is an empirically proven fact that negative emotions have a destructive effect on the process of learning and cognitive strategy. But do all positive emotions

or cognitive self-regulatory strategies also increase academic performance and cognitive interest? To do this, first of all, it is necessary to find out the process of regulation of emotions.

Research shows that emotions and emotional responses can serve people well, but there are times when emotional responses do more harm than good (Gross, 2002). This finding supports the idea that emotions need to be periodically regulated, which is very important in educational institutions where there are social rules of conduct. A simple definition of emotion regulation is the ability to manage the experience and expression of emotions (Gross, 2002). Students do not necessarily choose to be at school or participate in certain learning activities, so they must regulate various emotions in the classroom (Turner et al, 2003).

It should be borne in mind that teachers, to a greater extent than students, need to regulate their emotions in the learning process. This is the main component of the organization of training. However, teachers, like students, face situations that can make them angry, frustrated and upset. They must also find appropriate ways to regulate these emotions in the classroom (Hargreaves, 2000). Therefore, the development of emotion regulation is important for both students and teachers. The need to regulate one's and one's own emotions in the classroom is referred to by teachers as one of the job stressors (Sutton, 2004). The strategies of emotional regulation chosen by teachers in different situations are also different, and there is insufficient knowledge of them.

Analysis of psychological literature allows distinguishing at least two ways of controlling emotions: control of the intensity of emotions and control of their broad component - emotional states ( Andreyeva, 2008).

Ways to control the intensity of emotions using cognitive regulation involve the use of attention and thinking to gain control over unwanted emotions. These methods are quite diverse. It involves the ability to think about anything, except for emotional situations such as stress or distraction, and requires willpower. Although distraction is a commendable way of managing negative emotions, it is not considered psychologically beneficial. Shifting the consciousness to some interesting task or focusing on the business side of the upcoming activity can provide emotional regulation. However, it should be borne in mind that suppressing emotions through a cognitive strategy can have serious consequences for the body. At this time, the transition to positive thinking is effective (Rojina, 1999).

The study of the individual characteristics of the emotional sphere of the personality and the emotional regulation of the activities of teachers showed that a significant part of teachers are characterized by high personal anxiety, neuroticism, depression, irritability, emotional and

neuropsychic instability. An insignificant part of teachers adequately express their emotional state, can regulate their emotions in the process of communication and thus influence the behavior of others, and also have the ability to deeply understand the various living conditions of students, inspire them to trust themselves, and thereby influence their behavior.

In order to understand emotion regulation strategies, it is necessary to understand the classification systems of emotion regulation. However, a classification system intended for use in universities or classrooms has hardly been developed. As an exception, the classification of emotion regulation in the educational system is given by Koole (2009) and Gross (2001). Here two aspects should be considered. In the first case, the main targets of emotion regulation are attention, emotion knowledge, and bodily manifestations of emotions. In the second case, regulation strategies according to psychological function can be demand-oriented, personality-oriented and goal-oriented (Koole, 2009).

Gross (2001) referred to emotion regulation strategies as antecedent or response-oriented strategies. Antecedent strategies are those that are implemented during and before the initiation or initial stages of an emotional response. While response-oriented strategies are concerned with managing physiological or behavioral responses to emotions. Koole (2009) argues that several strategies can be used at different times on the emotion generation timeline (Kole, 2009).

There are many strategies that people can use to regulate their emotions. The classification of strategies depends greatly on whether you use the Gross or Koole system. For example, the strategy of focusing on breathing is classified by Koole as a strategy targeting bodily manifestations (Koole,2009).

Emotion and personality-oriented strategy is classified by Gross (2001) as a response-oriented strategy. And the strategy of thinking about other things or intentionally distracting is classified by Koole (2009) as an attention targeting strategy with a demand-oriented psychological function (Koole,2009).

Gross, on the other hand, classifies it as an earlier strategy in the category of attention management (Gross, 2001). Gross (2002) and Fried (2010) examined the types of emotion regulation strategies used by students or teachers in the classroom. In a series of his studies, Fried (2010) found that secondary school students used different advanced methods of emotional regulation using Gross's (2002) classification system. In this research, several types of emotion regulation strategies are shown:

1) projection strategies - how the student will feel when completing the task (for example, "I think about how I will feel when I complete the task"). That is, thoughts about the

final consequences of doing well or poorly (for example, “I think about how upset my parents will be if I don't do well in school” or “I think about what I can do if I do well in school”).

2) Self-dialogue strategies—strategies related to building self-confidence at the beginning of a learning task (eg, “If I feel hesitant in class, I tell myself that you can do it!). They also used response-oriented strategies such as thinking about other things to feel better (Fried, 2010).

This study was conducted among 200 high school students using a modified standardized instrument to measure the use of emotion and motivational regulation strategies. Results indicated that students also had difficulty identifying the emotion regulation strategies they used. The latter can be attributed to the fact that these strategies are taken for granted and thus implicit. (Mauss et al, 2007). Thus, students may not be aware that they are using some of the strategies.

Research shows that in many cases, teachers understand the importance of regulating their emotions, but often think that this means hiding their feelings from students. (Carson & Templin, 2007).

Sutton (2004) found that teachers believe in their ability to regulate their emotions. This is related to the efficiency of their work. It was determined that during “down-regulation,” negative emotions tend to be the most common target of emotion regulation strategies. But this can act as the most general goal even during “up-regulation” of positive emotion.

In Sutton's (2004) research, emotion regulation strategies were also considered important for teacher effectiveness. In addition to all this, teachers use their emotion regulation strategies differently because they differ in their experiences and expression of emotions (Gross & John, 2003). The result is that emotional regulation strategies that are effective for one person may not be effective for another. However, there may be some strategies that are versatile and effective. Research shows that cognitive reappraisal strategies, such as having the learner reassess the meaning of the task, are associated with more positive emotions. If passive strategies, such as distraction or avoidance, are associated with greater negative emotions after use, they found that cognitive strategies were generally more effective than goal-directed strategies (Gross and John, 2003).

Such an approach, i.e. emotion regulation through adaptive or cognitive regulation strategies found that progressive muscle relaxation is effective in reducing stress levels, only partially supported by Koole. On the other hand, regulation strategies such as counting to ten or

focusing on breathing during response-oriented emotions were found to be negatively related to students' social competence. (Fried, 2010).

In addition to the, it was found that response-oriented emotion regulation strategies are negatively related to academic performance. Another sresearch (Baumeister et.al, 2015) found that excessive use of certain strategies, especially suppression strategies, usually appeared to be a cost to depression. Depression can also result from the overuse of suppression (Kuhl & Fuhrmann, 1998). The results of the study show that emotion regulation strategies affect the results of the student's academic performance depending on the time of their implementation. Furhermore, developing emotion regulation strategies can be done in the same way as physical skill development with some practice. (Baumeister et al., 1998)

### **3. Methodology**

#### **3.1. Design**

Taking into account the context of our research, we were interested in teachers' opinions in order to study the relationship between teachers' cognitive strategies and emotional self-regulation mechanisms in the teaching process of a higher education institution. The authors of the article applied to higher education institutions (on the condition of anonymity) and asked them to express their attitude regarding the application of cognitive strategies and self-emotional regulation in the educational environment of the university with the permission of the teachers. It was interesting for us that teachers choose appropriate emotional regulation methods during the cognitive strategies they use. For this purpose, we tried to study the problem using various methods and tests. A quantitative approach was taken as a methodological direction in the research (Sivrikova et al., 2017). In addition, we can investigate whether a variation-centered approach can explain the expected relationship between cognitive strategies and emotional self-regulation (Denzin and Lincoln, 1994).

#### **3.2. Participants**

The research was conducted on teachers who teach in different faculties at Odlar Yurdu University. The main criteria for the research were age periods and work experience. 64 teachers participated in the research. 34 (53.125) male teachers and 30 (46.875) female teachers participated in the selection. 99.5% of the teachers of both sexes conducted regular lessons and tried to conduct interactive lessons. Various methods were proposed to them and their approval was obtained. No work was done against the will of anyone in the research.



### 3.3. Instruments

Several methodologies were used in the research. The methods used in the research were carried out in order to determine the level of emotional exhaustion of teachers, to reveal the emotional self-regulation strategies used in the learning process, and also to study the effect of teachers' life satisfaction on their self-regulation strategies.

The following methods were used in the research:

1. "Emotion Control Values" questionnaire (Pankratova and Osin, 2015).
2. "Big Five" methodology (Egorova and Parshikova, 2016).
3. "Methodology of life satisfaction" (Sivrikova et al., 2017). This methodology was based on the "Life Satisfaction" questionnaire developed by Melnikova (1996) and the "Satisfaction of Education Participants" methodology developed by Lukyanova and Kalinina was used. The level of socio-psychological inconsistency in the professional activities of teachers was determined through a specially prepared questionnaire. The questions in the questionnaire are combined into four blocks :

- 1) passivity, tiredness;
- 2) enthusiasm for professional activities;
- 3) absenteeism;
- 4) negative impact assessment (Sivrikova et al, 2017).

The general questionnaire consists of 33 questions. The lower the final value of the questionnaire, the higher the degree of socio-psychological adaptation to the profession and profession. The opposite is also true.

4. The 10-item ERQ "Emotional cognitive reappraisal and response suppression" method was used in the study to evaluate individual differences (Gross and John, 2003). The presented cognitive reappraisal scale consists of six statements. The participant in the research is asked to indicate the degree of agreement with the proposed statements on a scale from 1 ("strongly disagree") to 7 ("strongly agree").

5. Another method used in the research is the method of studying "emotional exhaustion". It is claimed that the "Emotional Exhaustion Level Diagnostics" method for determining the level of emotional exhaustion has been successfully applied with various research methods and is used to assess the health of various population groups (Boyko, 2019; Rochev, 2018). Methodology consists of 84 questions. Each answer option is initially evaluated



by competent experts with one or another number of points. This is indicated in the “key” next to the number of the decision in brackets. Bu ona görə edilir ki, simptomla daxil olan xüsusiyyətlər onun şiddətini təyin edərkən müxtəlif mənalara malikdir. The maximum score - 10 points was given by the judges to the sign that shows the most sign. The following calculations are performed according to the “Key”:

- 1) total scores are determined separately for each of the 12 symptoms of “exhaustion”;
- 2) the sum of symptom scores is calculated for each of the 3 stages of “exhaustion” formation;
- 3) “emotional exhaustion” is the final indicator of the syndrome - the sum of the indicators of all 12 symptoms. Methods of mathematical statistics such as r-Spearman rank correlation coefficient were used for statistical processing of empirical research results. Quantitative data processing was carried out using the SPSS Statistics 22 software.

#### **3.4. Data collection**

The research began with an empirically obtained and validated approach to the problem. Later, permission was sought from the educational institution to obtain the information through a documentary presentation requested by the University management. Once agreed upon, the instruments were applied so that the data were entered into SPSS 22 statistical software for differential analysis according to the proposed goals. After processing, they were presented clearly, summarized in tables with the necessary analysis and comments.

#### **3.5. Statistic procedure**

Questionnaire and methodology data were coded and analyzed using the SSPS 22 software. To study the models of teachers' emotional regulation strategies, including the level of satisfaction with education, the influence and relationship of emotional exhaustion in the selection of emotional strategies, “Emotion Control Values” questionnaire (Pankratova, 2015), “Big Five” methodology (Egorova and Parshikova, 2016), “Life satisfaction methodology” (Sivrikova et al., 2017), “Emotional cognitive re-evaluation and response suppression” (Gross and John, 2003) methods were used. These methods allow for a qualitative analysis of teachers' emotional regulation strategies.

### 3.6. Ethical criteria

The ethics committee was involved before this research. Therefore, the international ethical aspects of beneficence and non-maleficence were taken into account in the research, so the results were aimed at achieving the goals for the benefit of the participants without any intention to harm. In the same way, his physical or mental condition was not impaired (Fouka & Mantzorou, 2011). Since the willingness to participate in the research was subject to informed consent (Weinbaum et al. 2019), the principle of autonomy was also considered. Finally, the research data was de-confidentialized so that the data obtained (demographic data) was sent only for research purposes and not to third parties.

## 4. Results

In order to analyze the obtained data, first of all, it was started from the practical evaluation of the emotional strategies of the teachers. Two specific strategies of emotional regulation were selected for the research: cognitive reappraisal and expressive suppression. Cognitive reappraisal is a change of attitude to the situation that allows modification of emotional reactions, and suppression of expression is the maintenance of external manifestations of emotional reactions that have already occurred.

**Table 1. Age-appropriate assessment of teachers' emotional strategies**

Emotional assessment scales	The age dynamics of teachers (in %) (n=64)			
	25-35	36-45	46-56	57<
Cognitive reappraisal of emotions	73.25	65.76	48.13	26.09
Expressive suppression of emotions	26.75	34.24	51.97	74.91

As can be seen from Table 1, emotional evaluations are significantly different in the life dynamics of teachers. Thus, 73.25 percent of young teachers around 25-35 years of age chose the appropriate scales for the evaluation strategies of cognition, and 26.75 percent for the expressive suppression of emotions. It is clear that cognitive assessment in age-related changes is more evident in teachers of the new era. It comes from controlling one's emotions and making decisions according to the circumstances.

As can be seen from Table 1, cases of expressive suppression of emotions are less noticeable in them. This fact shows that it is not the academic experience, but rather the demands of the new educational environment that are important in teachers' ability to manage their emotions. Other changes vary according to age legally, and it is noticeable that the difference between cognitive reappraisal strategies and (26.09) strategies of expressive suppression of emotions is greater in the 57< age group. This fact shows that age also changes emotional self-regulation strategies. But the reasons for this change can be many factors. Studying each of them for this research poses a methodological difficulty.

It can be seen from Table 2 that there is a relationship between teachers' different qualities when using cognitive strategy or expressive suppression. Thus, the relationship between extroversion and cognitive strategy according to typology is more significant than expressive suppression ( $p=0.001$ ).

It can be seen from Table 2 that cognitive reappraisal has a positive correlation with extraversion, benevolence, openness to experience, and alertness, and at the same time, expressive suppression has a negative correlation with neuroticism, extraversion, and openness to experience at  $P=0.2$ . Most of the time it is a tendency.

**Table 2. Evaluation of teachers' emotional regulation strategies according to age**

No.	Methods	Scales	Cognitive strategy	Expressive suppression
1.	Big Five Methodology	Extraversion	0,21**	-0,22**
		Vigilance	0,36**	-0,09
		Neuroticism	0,12	0,16**
		Openness to experience	-0,34**	-0,29**
2.	Emotional intelligence methodology	General emotional intelligence	0,32**	-0,15
		Understanding one's emotions	0,13	0,31**
		Controlling one's emotions	0,56**	0,48**
		Control of expression	0,18**	-0,09
		Understanding the emotions of others	0,30**	-0,17**
		Controlling the emotions of others	0,28**	0,16*
3.	Life satisfaction methodology	General resilience in life	0,27**	-0,24
		Attractiveness	0,24**	-0,18
		Control	0,23**	-0,14
		Acceptance of risk	0,16*	-0,19*

Cognitive reappraisal correlated significantly ( $P=0.5$ ) with emotional intelligence, including teachers' own emotion management. (For example, “When I feel a positive emotion, I know how to maintain it for a long time”, “I know how to calm my emotions if I get angry”) Approaching the problem from this aspect, according to teachers, teachers should not express their emotions openly. The situation is the same on the scales of life satisfaction.

The strategy of cognitive reappraisal differs from the strategy of expressive suppression. Here, there is a significant positive relationship between general resilience, attractiveness, control, and risk taking and cognitive strategies in life (at  $p=0.01$  and  $p=0.5$  level). In the expressive suppression strategy, there is no relationship and in some cases it is a tendency ( $p=0.001$  level,  $r=-0.19$ ).

**Table 3. Indicators of the relationship between teachers' emotional strategies and academic experience years**

Emosioual Assessment scales		Teachers' years of academic experience (n=64)		
		5 year	10 year	15 year
Cognitive reappraisal of emotions	of	0,08*	0,27*	0,34**
Expressive suppression of emotions	of	- 0,09*	0,20**	0,16*

It can be seen from Table 3 that there is a significant relationship between the years of academic experience of the teachers and their emotional strategies. The teachers' emotional regulation strategies change over time of practice. This change is mainly related to the reduction of expressive suppression of emotions and the increase of cognitive reappraisal. In fact, such a trend contradicts the previous assessment. However, this fact shows that the cognitive strategy prevails over the emotional regulation strategies. That is, there is a significant relationship between cognitive regulation strategies and teachers' work experience ( $p=0.001$  and  $p=0.05$ ). It also confirms previous surveys and can be brought to the fore as a new approach.

**Table 4. Relationship between teachers' emotional strategies and emotional exhaustion**

Emotional assessment scales	Emotional exhaustion (n=64)		
	formed	forming	neutral
Cognitive reappraisal strategy of emotions	42.13	38.56	56.12
The strategy of expressive evaluation of emotions	51.87	61.44	43.88

As can be seen from Table 4, the relationship between teachers' emotional strategies and emotional exhaustion is ambiguous. Each of the three scales of emotional exhaustion manifests itself when using either the cognitive reappraisal strategy of emotions or the expressive emotion appraisal strategy. However, quantitatively, indicators are higher when using the strategy of expressive evaluation of emotions. (61.44). This fact confirms that the use of the strategy of expressive evaluation of habitual emotions creates a basis for emotional exhaustion.

## 5. Discussion

Our research showed that cases of teachers' expressive suppression of emotions are less noticeable than the cognitive reappraisal strategy. This fact shows that rather than academic experience, the demands of the new educational environment are important for teachers to manage their emotions. Our results are consistent with several studies. Thus, the predominance of cognitive reappraisal in the management of emotions and the selection of emotional strategies at this time occupies a dominant place in a number of studies (Breslav, 2006; Vilyunas, 2008). Often, this systematic review focuses on identifying the relationship between individual emotions and the management of emotions or teacher self-efficacy. (Chen, 2021).

The existence of a relationship between teacher's emotions and teacher's self-efficacy has also been proven in a number of studies (Chen, 2021). These results support the TEM model of emotional strategies (Chen, 2021) and are consistent with Bandura's (1997) theoretical model of emotions and self-efficacy beliefs (Frenzel, 2014; Sutton and Wheatley, 2003).

Also, according to Schirmer (2015), the number of negative emotions that people experience is generally more than the number of positive emotions. However, positive emotions are essential to the psychological well-being of two individuals (Fredrickson, 2001). Because the experience of positive emotions during the educational process in the context of education can

reduce the effect of exhaustion syndrome (Frenzel et al, 2016). Although these studies differ from our research content, in fact, the abundance of positive emotions and the teacher's lack of exhaustion will encourage him to use the strategy of cognitive reappraisal. From this point of view, the results are appropriate.

Positive emotions and teacher self-efficacy do not imply respect for the relationship between beliefs, but indicate a positive relationship between the two. These results are consistent with the idea that positive emotions may promote psychological resources, such as beliefs in teacher self-efficacy (Fredrickson, 2001). In addition, by accrediting his abilities to achieve certain educational goals, the teacher may experience more positive emotions or less negative emotional states (Bandura, 2012). This result is relevant for the educational process, as a result of which experiencing positive emotions and a high belief in the teacher's self-efficacy can contribute to quality teaching (Pitkaniemi, 2017).

In addition to being more tolerant of unruly students, teachers with positive self-efficacy beliefs are more likely to use teaching strategies and emotional strategies that are student-centered, meaning that the classroom is tailored to their needs (Zee and Koomen, 2016).

When using emotional strategies, by experiencing and expressing positive emotions, as researchers have noted, a teacher can contribute to student learning and awakening, and as a result, emotions can spread to other people (Fenzell et al., 2019). Not respecting the relationship between negative emotions and teacher self-efficacy beliefs, the results indicate a negative relationship between these emotions and teacher self-efficacy and vice versa, except for raiva emotions. In fact, researchers have paid much attention to teachers' emotional experiences during regular teaching and their impact on the lives of teachers and students (Cross and Hong, 2012; Hagenauer & Volet, 2014; Hargreaves, 2001; Schutz et al. 2007; Sutton, 2004; Sutton and Wheatley, 2003).

It was determined that negative emotions such as anger and frustration, often reported by teachers, reduce teachers' intrinsic motivation and increase students' negative emotional experiences (Sutton & Wheatley, 2003). A wealth of research shows how the accumulation of negative emotions in teachers undermines teachers' well-being and hinders student learning achievement (Chan, 2006). In general, teachers' emotions are crucial factors in education, and a new direction in emotional research is to explore how teachers' emotions, especially negative emotions, can be regulated.

## **6. Conclusion**

Our research showed that although teachers are quite adapted to their professional activities, their emotional regulation strategies are various. At the same time, among inexperienced teachers, there are more frequent cases of withdrawal from the profession, which is manifested in the inadequate selection of emotional regulation strategies and, as a result, the development of emotional exhaustion. On the other hand, it has been established that teachers' choice of emotional strategy of self-regulation depends on their academic experience and level of satisfaction with education. A busy life and professional burnout and difficulties in cognitive self-evaluation make it difficult to choose strategies, create chronic stress and, as a result, teachers are dissatisfied with their own performance. Disappointment with life and fatigue in the training process lead to the selection of inappropriate and unappreciated strategies, and as a result, the effectiveness of training decreases. Research has shown that the level of life satisfaction among teachers is characterized by satisfaction with their work and satisfaction with the current situation and varies depending on their relationship with colleagues, students, management and parents.

The research has shown that cognitive reappraisal strategy is different from expressive suppression strategy and varies according to teachers' level of emotional exhaustion, self-regulation mechanism and academic work experience. However, there is a positive and significant relationship between life-general resilience, attractiveness, control, and risk-taking and cognitive strategies. In the expression suppression strategy, there are no such relations, or in some cases, they are of a tendency nature.

## **7. Limitations and further research**

Although the results of our research are consistent with other studies, there are some limitations. These limitations are primarily due to the inclusion of fewer teachers in the research, as well as the participation of teachers from only one university.

The data is based on the answers to test questions related to the study of emotional exhaustion, the type of strategies used, and the level of life satisfaction of teachers within the university. At the same time, randomness of selection and lack of a solid methodology of emotional self-regulation strategies and the selection of different contexts of studies in this field also made the research process difficult.



On the other hand, data were collected over a limited period of time and accompanied by a limited number of participants. However, the results obtained in this research can strengthen existing approaches in this field in a specific national-ethnic environment and cultural context, and provide different perspectives to scientific circulation with a greater scope of choice in terms of quantitative analysis for future research. It can also be a basis for making suggestions for future research within the framework of a new methodological approach, that is, the way of using emotional strategies in education is not based on the principle of freeing from emotions, but by releasing emotional tension and increasing intellectual tension.

## Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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