



Development of students' emotional intelligence and minimizing their stress in the classroom

BY

Natela Doghonadze¹, Nino Jikia²,

¹Professor, Doctor at International Black Sea University

²PhD student at International Black Sea University



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Abstract

The goal of the article is to find out whether the development of students' emotional intelligence can contribute to decreasing stress in the classroom. Contemporary life is full of stress due to political and social instability, which makes minimizing stress in the classroom a significant topic. The attention paid nowadays to emotions makes dealing with them an important tool for success in education. An online teacher survey was conducted to clarify Georgian teachers' views on EI application in the educational process and its role in stress reduction. The respondents who volunteered to participate in the research were mostly females who came from the capital and three different towns in Georgia, representing both public and private schools, which still makes the study valuable, irrespective the limited number of participants (totally 44). The obtained results were analyzed by descriptive statistics methods. The obtained conclusions are: Georgian teachers are aware of the role of low-stress atmosphere in the classroom; the majority of the respondents believe that EI can and should be developed by teachers in class; special activities (positive feedback, humour, as well as games and other entertaining activities) should be used to increase students' EI, and teachers suppose that a high level of students' emotional intelligence has a positive impact on the productive classroom environment.

Keywords: emotional intelligence, stress, trait emotional intelligence, ability emotional intelligence, academic achievement, classroom environment

Introduction

During the history of education, intelligence was treated differently. Although cognition and emotions are two essential brain functions, education process for ages was more interested in cognition than in learners' emotions. Only on the border between the 20th and 21st centuries, the attention to the emotional component of learning has started to attract more attention. According to Mayer and Salovey (1993), emotional intelligence (EI) is "a type of social intelligence that involves the ability to monitor one's own and others' emotions, to discriminate among them, and to use the information to guide one's thinking and actions" (p. 433). Emotional intelligence is conceptualized as "trait EI" (dispositions measured by self-report) and "ability EI" (measured via observation by experts). Both types of EI are reciprocally related to with learners' cognition, for instance, Treglown and Furnham (2020) indicate that, according to some investigations (Qualter et al., 2012), ability EI is strongly correlated with cognitive ability in predicting performance outcomes, while other researchers (Davis & Humphrey, 2012) have found that trait EI can predict how effective an individual is at portraying the emotion.

Unfortunately, contemporary life is full of stress due to political and social instability. Education has to care about students' psychical health and do its best to reduce stress level for children dealing with exams and testing, competition,

assessment, achievement goals, amount of homework, the need to meet deadlines, bullying, etc., however, experience and research reveal that stress level in the classroom is often high (Ayiro, 2023; Matud et al., 2020). Therefore, dealing with stress levels in education remains a significant problem in education. Developing students' emotional intelligence is one of efficient ways to reduce stress (Zhang, 2022). There is much research on EI, however, insufficient studies have been done on the relationships between the EI level and stress level. This is the main motive that triggered the given research. Therefore, the goal of research was to find out whether the development of students' emotional intelligence can contribute to decreasing stress in the classroom in Georgian context.

Literature review

According to Strelau and Zawadzki (2008), emotional intelligence is linked with personality, motivation, and social and cognitive features of students. Nogaj (2020) held a study in Poland with 354 students from music, art, and general education schools, aged 16 to 19. The results of the study revealed that students of different specialties differently cope with stress. Music students in her study had higher levels of EI, they were more aware of the positive and negative emotions that they feel, expressed their emotions more easily, and could effectively use their knowledge about the emotions they experience. In stressful situations, they demonstrated

task-oriented coping strategies more often than students. Nogaj (2020), however, states that some other studies (e.g., Schellenberg, 2011) reject the relationship between students' specialty and the level of their EI. The different results obtained by researchers may be related to various EI measurement tools applied. Nogaj (2020) links the higher levels of music students' EI with the creative nature of their future profession (they regularly have to understand the emotions involved in the musical pieces) and the effective stress management strategies with frequently experienced stress in connection with public performances, etc. The frequent need to manage one's emotions and the experience of stress management eventually contribute to the development of music students' EI and stress-management strategies. The study also revealed that all students, regardless of the type of school, demonstrated a significant positive correlation between EI and the use of task-oriented coping strategies. "The higher the students' level of emotional intelligence, the more often they used efficient and effective strategies to cope with stress; specifically, they focused more on the task and less on their emotions" (Nogaj, 2020, p. 90).

Ngui and Lay (2020) conducted a study with 200 Malaysian student teachers aged 25 and found that the EI level of students is a good predictor of resilience to stress. The study concludes that self-efficacy mediates the relationship between EI and resilience, while subjective well-being does not mediate between these variables. Their conclusions are in line with many previous studies (Abebe & Haile Mariam, 2011; Hong, 2012; Koydemir & Schlutz, 2012; Lane & Wilson, 2011; Maher et al., 2012; Mapfumo, et al., 2012; Windle, Bennett, & Noyes, 2011).

A study by Kustyarini (2020) with 160 students from Indonesia demonstrated that the level of EI has a mediating effect of implementing active learning methods on student learning outcomes. EI increases self-efficacy, which in turn helps students to overcome stress in the process of being engaged in various educational activities. It relieves students from the burden of stress and permits them to engage in activities without the negative impact of anxiety. "The learning process not only makes students have the knowledge, but they are also able to utilize that knowledge in life and even produce their own knowledge. In order to optimize student competencies, it is necessary that learning can really improve the variety of quotient it has, including student emotional quotient. Learning that is able to optimize students' emotional quotient is called active learning" (p.673).

The role of EI and coping with anxiety and stress strategies in 258 Spanish university students' self-efficacy was studied by Morales-Rodríguez and Pérez-Mármol (2019). As they mention, self-efficacy tends to decrease when the tasks fulfilled exceed students' capacities. This, on the one hand, means that teachers should be careful about tasks too difficult for students, but, on the other hand, students' EI has to be developed and ways to cope stress recommended, so that they do not experience frustration while dealing with difficult tasks, instead, they should be able to cope with negative emotions and believe in their ability to fulfil the task. This

will help them to concentrate on overcoming the difficulties instead of feeling helpless in their face. They base their idea on Cropanzano et al. (2003) who believed that emotions are a continuum from anxiety at the negative pole to emotional intelligence at the positive one.

Fteiha and Awwad (2020) investigated the relationship of EI with coping stress with 265 students from UAE. A strong positive correlation was found between emotional intelligence and stress coping style. "Emotional intelligence is related to the individual's ability to deal with stress" (p. 2). They name logical thinking, imagination, interactive activities, humor, and fun-filled activities among the strategies that help in reducing the effects of stress. Emotional maturity gained by the majority of students by the age they are admitted to university helps them to apply EI for overcoming stress. The researchers emphasized that stress-coping strategies not only help students overcome educational problems but also problems evolving in their daily lives. This is why educators should pay more attention to the development of students' EI, not only their knowledge and cognitive abilities.

Method

Quantitative research method (survey) was applied in order to get objective results. An online teacher survey was conducted to clarify Georgian teachers' views on EI application in the educational process and its role in stress reduction. A questionnaire was developed based on literature review. To provide its content validity, it was sent to three specialists in the area. Further, after certain improvement, it was piloted with 10 school teachers of various subjects. The test-retest procedure yielded $r=0.87$, which means that the questionnaire is sufficiently reliable. The questionnaire is presented in the appendix to the article. Descriptive statistics (measures of central tendency, dispersion, and distribution) was calculated with SPSS 24 software.

Procedure

The questionnaire was uploaded on authors' social media with a request to colleagues to fill it out and to share it with other colleagues. Thus, a combination of voluntary response, purposeful convenience, and snowball methods was applied. This method allows to reach many participants in a short time avoiding the bureaucratic procedures dealing with permissions from school administrations to involve their teachers in research. On the other hand, of course, it is not a probability sampling technique, as all subjects (teachers) do not have an equal chance to be part of the sample (McCombes, 2023). The results of such a survey can only give a certain idea on the issue and cannot be generalized. However, taking into consideration that no empirical study of the issue has been undertaken in Georgia, the study is valuable for directing further research.

Participants

The questionnaire was available on the internet for two months. Unfortunately, after the COVID-19, teachers have become very reluctant to take part in any research and mostly do so when that is compulsory (administration requirement).

The respondents who volunteered to participate in the research were mostly females who came from the capital and three different towns in Georgia, representing both public and private schools, which still makes the study valuable, irrespective the limited number of participants (totally 44).

Results

The descriptive results are presented in Table 1. 81.8% of the respondents strongly believe that a low-stress atmosphere in the classroom is essential for quality teaching and learning. 95.4% gave a positive assessment to the item, while 4.6% hesitated. No negative responses were given (Mean = 4.77).

Teachers have a whole spectrum of opinions on the issue whether EI is inborn or can be developed in the educational process. However, only 4.6% strongly agree and 9.1% agree that EI intelligence is inborn and cannot be developed purposefully. The majority of the teachers either strongly believe (22.7%) or believe (45.5%) that it can be developed. There are some who hesitate (18.2%) (Mean = 3.73).

Similarly, more than half of the respondent teachers either strongly believe (31.8%) or believe (27.3%) that teachers can (and should) contribute to the development of their students' emotional intelligence. However, many of them (27.3%) either hesitate whether teachers can / should contribute to their students' EI increase or do not think teachers can/ should do so (9.1% disagree, while 4.6% totally disagree) (Mean = 3.73).

The answers to the second and third questions reveal a generally positive attitude to the development of EI, however, they also reveal that some teachers either are reluctant to take up an additional (besides providing students' cognitive development and knowledge acquisition) function or simply are not well aware of the importance of this function and the ways how to deal with EI development.

Only 9.1% of the teachers that developing children's emotional intelligence is parents' and/or psychologists' business, not teachers' one. The majority of them either strongly disagree with the statement (22.7%) or disagree (40.9%) with it. There are also those who hesitate (27.3%) (Mean = 3.82).

None of the teachers negate that teachers can help increase the emotional intelligence level of their students through special activities designated for their development. There are even few (9.1%) who hesitate. The majority of the respondent teachers either strongly agree (54.5%) or agree (34.6%) that special activities can be useful for increasing students' EI (Mean = 4.45). Among the activities the majority of the respondent teachers (81.8%) support games and other enjoyable activities (90.9%), as well as constructive feedback in the process of formative assessment and application of humour in the class (77.25%).

In increasing stress, the respondent teachers see too discipline-oriented teaching as an essential factor (40.9% strongly agree and 40.9% agree). Few teachers (9.1% - agree) viewed stress as a tool to increase students' attention,

engagement and responsible attitude towards learning (Mean = 4.05).

Besides special activities (constructive feedback, humour, and games), certain behaviours (such as students' tactless and rude behavior towards each other) have to be prevented by teachers (54.5% strongly agree and 22.7% agree) (Mean = 3.63). Teachers should model positive emotions in the class and be friendly with students (59.1% strongly agree and 27.3% agree) (Mean = 3.95).

Productive learning atmosphere requires students' ability to cope with their emotions (59.1% strongly agree and 27.3% agree) (Mean = 4.36). Correspondingly, a high level of students' emotional intelligence has a positive impact on the productive classroom environment (63.6% strongly agree and 27.3% agree) (mean = 4.41).

Table 1. Survey results

#	Mean	Mode	Median	Standard deviation	Skewness	Kurtosis
1	4.77	5.00	5.00	0.53	-2.39	5.46
2*	3.73	4.00	4.00	1.08	-0.91	0.64
3	3.73	5.00	4.00	1.16	-0.61	-0.24
4*	3.82	4.00	4.00	0.91	-0.45	-0.31
5	4.45	5.00	5.00	0.67	-0.86	-0.24
6	3.55	4.00	4.00	1.37	-1.02	-0.05
7	4.00	4.00	4.00	0.69	0.00	-0.69
8	4.41	5.00	4.50	0.67	-0.70	-0.43
9	4.05	4.00	4.00	1.13	-1.39	1.51
10*	3.63	4.00	4.00	-0.85	-0.21	-0.29
11	3.95	5.00	4.50	1.36	-1.16	0.14
12	4.36	5.00	5.00	1.00	-2.09	5.14
13	4.36	5.00	5.00	1.00	-2.09	5.14
14	4.41	5.00	5.00	1.05	-2.29	5.29

All items marked by an asterisk (*) were calculated in reverse order, as they are negatively formulated. The majority of results are within normal curves (mean, mode, and median close to each other, low standard deviation, and skewness and kurtosis between -3 and 3), some results represent almost normal curves (see the numbers in bold which are a little beyond the requirements of a normal curve). Therefore, the results on the whole are trustworthy.

Discussion

The current research came to the following conclusions: 1. Georgian teachers are aware of the role of low-stress atmosphere in the classroom. 2. The majority of the respondents believe that EI can and should be developed by

teachers in class. 3. Special activities (positive feedback, humour, as well as games and other entertaining activities) should be used to increase students' EI. 4. Teachers suppose that a high level of students' emotional intelligence has a positive impact on the productive classroom environment.

Aziz et al. (2023) in their study with 641 senior high school students in Indonesia applied two measuring tools to find out whether stress reduction via a system of special activities could improve academic achievement. They came to conclusion that a positive learning environment increases learning outcomes. This finding is in line with our first and fourth findings.

According to Parinussa et al. (2023), observations over teachers' work and 42 students' at a school in Indonesia that students' emotional intelligence can be developed via teacher's active involvement in the process, first of all, teacher serving as a model of understanding his/her students' emotions and caring about them. Teachers have to bring the understanding of the fact that the way they treat each other has an impact on their well-being, including the way they learn. Our second finding also supports this idea. The research by Kovalchuk et al. (2022) with 42 Ukrainian students of a pedagogical university yielded that games, projects, cooperative work, research, and brainstorming help develop students' EI. This finding is congruent with our finding number three.

Our findings are also in line with Li et al. (2021) study in which 1,718 secondary school students and 1,295 university students in China answered a questionnaire that revealed that foreign language enjoyment increased and language anxiety decreased when students' trait EI was high. While classroom environment had a stronger impact on enjoyment, trait EI had a stronger impact on anxiety, however, both of them had a statistically significant impact. A study of Trigueros et al. (2020) with 1347 Spanish university students also yielded similar results. EI positively predicted increased resilience, while test anxiety and academic stress were decreased by it.

Limitations

The current study involved a small number of respondents. Besides, a descriptive study is not sufficient to judge about cause-result relationships. Therefore, the directions of further research are applying an experimental study on a larger scale.

Conclusions and recommendations

Although teachers are to a certain degree aware of the role of EI in stress management in education, their awareness should be increased, first of all, via relevant trainings. Teachers need to realize that developing students' EI is as important as dealing with their knowledge and cognitive capacities. They should admit that it is one of their responsibilities, however great they already are. Teachers need to involve relevant activities in their practice that will emphasize the role of students' own and other students' emotions, improve their relationships and classroom environment, and reduce stress in the classroom.

Appendix

Teacher questionnaire

For information:

- *Emotional Intelligence is the ability to identify and understand one's feelings and emotions as well as others.'*
- *Formative assessment is the assessment provided while covering a certain topic/unit / semester. It is often done without grades, just mentioning that something the student did/said is write or wrong and why, offering help to overcome the existing problems.*

Please assess the statements below from 1 (completely disagree) via 3 (neither agree, nor disagree) to 5 (fully agree):

1. I believe that a low-stress atmosphere in the classroom is essential for quality teaching and learning.
2. * I believe that students' emotional intelligence is inborn and its level cannot be changed.
3. I think that teachers can / should help increase the emotional intelligence level of their students through stressing the emotional moments of the content under study.
4. *I believe that developing children's emotional intelligence is parents' and/or psychologists' business, not teachers' one.
5. I think that teachers can help increase the emotional intelligence level of their students through special activities designated for their development.
6. Stress in the classroom can be decreased due to constructive feedback provided to students in the process of formative assessment.
7. Stress in the classroom can be decreased due to application of humour.
8. Stress in the classroom can be decreased due to application of games and other enjoyable activities.
9. Stress in the classroom is high if the teacher is too strict and too discipline-oriented.
10. *Stress in the classroom is useful to make students attentive, engaged in activities, and responsible.
11. Teachers should prevent students' tactless and rude behavior towards each other.
12. By applying positive emotions and friendly relationships in the classroom, teachers can decrease stress in the classroom.
13. If students better cope with their own emotions, the classroom atmosphere is more productive.
14. A high level of students' emotional intelligence has a positive impact on the productive classroom environment.

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