EXPLORING EMOTIONAL INTELLIGENCE IN HIGHER EDUCATION: MANAGEMENT PROGRAMME STUDENTS IN RUSSIA

BASIC RESEARCH PROGRAM

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Researches have shown that emotional intelligence (EI) plays a crucial role in university education. Students’ EI affects their motivation to learn, perception of information and academic achievements. Educators’ EI impacts their job satisfaction and sense of self-efficacy. Recent researches take into consideration the EI of learners or educators, but ignore the correlation between them. The paper studies how the EI of one group of educational actors (educators) is interconnected with the performance of other actors (learners) in the same context. This study describes the situation at one university in terms of EI, and presents the results of panel data analysis (N=329) showing the relationship between educators’ EI and students’ academic performance. The findings indicate that the educator’s experience and his/her qualification negatively affect the students’ academic performance. These results could be explained by the assumption that teachers might miss certain mistakes on the part of their students at the beginning of their university careers; however, as educators become more experienced, they require more of their students. A relationship between students’ EI and educators’ EI was not found. It is supposed that even though educators seem to be crucial figures in the educational process, students cooperate with different representative groups at the university. Therefore students’ EI could be influenced not only by educators but also by other actors of the educational process (other students, administrative staff etc.).

JEL Classification: I21, I23

Keywords: Emotional intelligence, university education, academic performance, grade, management department students

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**Introduction**

Emotional intelligence (EI) is defined as “the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth” [Goleman, 1995, p. 10]. The EI model is considered valuable because it provides a clear and accessible framework for understanding and measuring the ability to work with emotions [Corcoran, Tormey, 2013].

Over the past few decades, EI has received growing attention in the scientific world. Overall, 7,639 papers were found in the Web of Science research citation database in response to a query for “emotional intelligence” in the topic section [www.webofknowledge.com, consultation date: March 13, 2018]. Figure 1 shows how the articles were distributed over the publication year.

![Figure 1. Number of papers on emotional intelligence published in periodicals reviewed by Web of Knowledge in 1998 – 2017 [www.webofknowledge.com]](image)

This growing body of research has linked EI with different aspects of life, including personal well-being, the quality of social relationships and professional effectiveness (Bar-On 2006). In educational research, EI is also of great interest. Investigators all over the world point out that EI is important in how individuals learn and perceive information [Jaeger, 2003]. Moreover, EI affects the motivation to learn [Planalp and Fitness, 1999, Radu, 2014], therefore influencing educational results.

Some authors have argued that it is essential to develop EI at any age [Bar-On 2006, Dolev, Leshem, 2017]. This development can be achieved in different ways, both by students alone, and with assistance. Consequently, educators (tutors, teachers and professors) can assist learners (students) to develop their EI in order to improve their educational performance.
Goleman (1995) highlights that the fact that EI has such a significant influence on student academic achievement that it should inspire teachers to look for strategies to increase student EI, thereby encouraging them to be more successful learners. Teaching is considered a highly emotional process, and various emotional skills appear to be relevant for educator efficiency. Perry and Ball (2007) claim that emotionally intelligent teachers are more likely to identify their own personal emotional flaws and to use a reflective approach in negatively charged situations involving students and peers. The authors conclude that high-EI teachers were more proficient than their low-EI peers [Perry, Ball, 2007]. Consequently, educator EI should also be constantly developed. Training teachers in the concepts of EI could influence students’ emotional growth, relationship skills and responsible decision-making, and their academic achievement and success [Daghayesh, Zabihi, 2016].

Current researches only take into consideration the EI of individual learners or educators, but ignores the interaction between the two. Looking into these interrelationships in the educational process is urgent given its potential to improve educational quality. The present study addresses this gap by exploring the correlation of educator and learner EI in the educational process.

This study investigates the EI of university students and educators, and the correlation between them which has not been studied before. The paper is organized as follows. Section 1 deals with theoretical and empirical studies devoted to EI at universities. Section 2 describes the research methodology. Section 3 presents the results of correlation and regression analysis, where we evaluate how the EI of educational process actors (students, educators) and other personal factors interrelate with student academic performance. The findings indicate that educator experience and his/her qualification negatively affect students’ academic results. A relationship between the student EI and educator EI was not found. Section 4 describes and discusses the findings.

**Literature review**

**Emotional intelligence**

Many researchers have been investigating how emotions affect people’s behaviours. The concept of EI emerged within the professional and academic domains of psychology in the 1990s [Mayer et. al., 2004, Prentice, 2013]. According to Goleman (1995), EI involves abilities that can be categorized as self-awareness, empathy, managing emotions, self-motivation and handling relationships with others. Bar-On (1997) identified five interactive
dimensions of EI, including adaptability (reality testing, flexibility and problem-solving), intrapersonal skills (self-regard, emotional self-awareness, independence, assertiveness and self-actualization), stress management (stress tolerance and impulse control), interpersonal skills (interpersonal relationship, social responsibility and empathy) and general mood (optimism and happiness). Bar-On (1997) describes EI as a way of adapting to the external environment.

Investigators from various fields of research (management, psychology and education) have highlighted the importance of understanding EI as a significant basis for personal performance, relationships, and for generating competencies that are important “in almost any job” [Cherniss, 2000]. The study of EI has brought to the forefront the role of non-cognitive skills in the workplace, and has highlighted the importance of emotions and emotional competences in performance in many occupations and professions, including teaching [Dolev, Leshem, 2017].

Previous research was based on individual EI. However managing emotions may rely not only on personal characteristics but also on emotional features of other communication participants. This external effect of other actors on individual EI has not been investigated before. The understanding of actors’ roles in emotional management could be particularly important for education. Therefore the current research fills the gap by exploring the correlation between educators’ and learners’ EI in the educational process.

**Emotional intelligence in educational studies**

Most academic research on EI in education has been devoted to educational processes in schools and school-aged students. This is possible as the basis for EI is formed at an early age. Very few studies have examined the EI of university students and professors.

Educational research features EI from two main perspectives (educators and learners). Educator EI is related to effective teaching and job performance satisfaction while learner EI impacts their learning process, academic achievements and social behaviours. Educators’ emotional efforts are an integral part of their work with students; it is not easy to identify EI because emotional factors are often disguised as ethical codes or professional norms. The straightforward duties of educators depend on their flexibility in regulating their emotions. Educators consider emotional expression in front of their students to be a skill, and high-quality teachers can efficiently use emotional competence in teaching [Hosotani, Imai-Matsumura, 2011, Yin et. al., 2013]. Research has shown that being more emotionally intelligent within a whole student group can mean having a separate and strong relationship with each member of the group. In the educational process, this would mean taking a real
student-centred approach, which is certainly more time-consuming, but which has better results. In this case, the results outweigh the extra effort [Radu, 2014].

It has also been proven that emotions may have an impact on teachers’ mental health, job satisfaction and sense of self-efficacy [Pianta 2006]. Karakus (2013) studied the influence of EI on teachers’ negative feelings. He discovered that EI decreased burnout and depression in teachers.

Scholars agree that EI is an important factor influencing the work and satisfaction of educators. However, research has demonstrated that the ability of in-service educators to utilize their emotions in emotional labour still needs to be improved [Fried, 2011]. Moreover, it was found that pre-service teachers’ EI is below average [Corcoran, Tormey, 2012]. Further studies on EI development in university educators should be carried out.

Teaching EI has become necessary in education, and most teachers master these skills and believe them to be important for the socio-emotional and personal development of students [Fernández-Berrocal, Ruiz, 2008].

From the point of view of learners’ EI, it is normally believed that both students’ academic results and their level of emotional adjustment make them more self-motivated in their studies. Research has shown that university students’ EI has a strong influence on their self-efficacy and achievement [Adeyemo, 2007]. This is why it is believed that EI should be constantly developed and, in terms of higher education, should be integrated into the curriculum. Bar-On (2000) states that students’ EI increases dramatically between high school and university.

When analysing university students’ performance, it is important to take into account their engagement, i.e., the effort that students direct towards their learning. Maguire et al. discovered that EI is a significant predictor of both affective and cognitive engagement [Maguire, et. al., 2017].

In addition, there have been a number of studies examining the connection between EI, anxiety and physical health [Extremera, Fernández-Berrocal, 2006], and subjective fatigue [Brown, Schutte, 2006] in university students. Emotions are thought to elicit different patterns of behaviour, such as failure avoidance, learned helplessness and passive aggression [Seifert, 2004]. EI should be considered a potential protective factor against students experiencing stress and burnout [Zysberg et. al., 2017].

There are four basic areas in which the lack of EI can provoke or facilitate the appearance of behavioural problems in students. These are interpersonal relationships,
psychological well-being, academic performance and the appearance of disruptive behaviours [Fernández-Berrocal, Ruiz, 2008].

Even though EI is believed to play an important role in students’ academic achievement, little attention has been paid to research on EI development in students in higher education programmes [Wang et al., 2011].

While a large body of research has examined the outcomes of EI at university, relatively little is known about the correlation between educators’ EI and learners’ performance. Students develop professional and personal skills, including managing emotions, while studying at university. Moreover, universities and their organizational culture require particular behaviour from students affecting their level of EI. Educators also purposefully shape students’ competences, including communicative skills. Therefore, it is important to understand whether educators’ EI has an influence on learners’ EI and performance.

Management students were chosen as the research subjects because EI is an essential professional skill for managers [Carmeli, 2003]. Managers are mediators between the internal and external business environment. Their responsibilities include communication with various stakeholders in order to meet their conflicting interests in the best possible way. Conflicts arise because a business cannot simultaneously meet the needs of all of its stakeholders. Hence, the work of managers is emotionally intense, so it is crucial to pay attention to this skill during the university education process.

This paper refines the body of knowledge concerning the impact of EI in higher education, specifically in Russian Universities as there have been few studies devoted to EI in this context. This is of value for Russian education development and for international comparative studies of the educational features.

**Research questions**

1. What are levels of EI at this Russian university?
2. Is there any relationship between an educator’s EI and the EI of his/her students?
3. Is there any relationship between an individual educator’s characteristics such as EI, experience and qualification, and the academic performance of his/her students?
Research methodology

Participants

The research was conducted in the 2016-2017 academic year at the Management Department of the National Research University Higher School of Economics (Perm, Russia). This university is relatively young, as it was founded in 1993, although it currently ranks as one of Russia’s top universities. The combination of Russian educational traditions and the best international teaching and research practices forms the basis of the success of Higher School of Economics. It should be noted that the research of a Russian case could generate an opportunity to discover this phenomenon deeper and enrich the international context of emotional intelligence in higher education studies.

In order to collect data, a questionnaire was distributed simultaneously to two groups of respondents (students and lecturers).

For the students, a total of 350 questionnaires were distributed to full-time bachelor students of the Management Department of the National Research University Higher School of Economics (Perm). This number represents all of the students studying at the Management Department in the current academic year.

Seventy-four student questionnaires were returned. The student sample consisted of 23 men and 51 women – a proportion corresponding to the student gender distribution in the general population in the Management department. The average age of the participants was 19.81 years (S.D. = 1.079). Table 1 summarizes the descriptive statistics of the student sample by their year of education.

Table 1. Descriptive statistics of students sample

<table>
<thead>
<tr>
<th>The Studies year</th>
<th>Number of participants</th>
<th>Management Department students participants’ share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>17</td>
<td>22%</td>
</tr>
<tr>
<td>2nd</td>
<td>18</td>
<td>20%</td>
</tr>
<tr>
<td>3rd</td>
<td>16</td>
<td>18%</td>
</tr>
<tr>
<td>4th</td>
<td>23</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>74</strong></td>
<td><strong>21%</strong></td>
</tr>
</tbody>
</table>
In order to determine the extent to which educators’ EI has an influence on students’ EI and academic results, the lecturers of the observed students also participated in the research. The lecturer sample consisted of 17 adults (4 men and 13 women).

This survey design enabled us to analyse the influence of EI on students’ academic results from the points of view of both educators and students.

**Measures and procedures**

The students were invited to take part in the survey at the end of the academic year. All the students provided their name and basic demographic information (age, year of study and family income). The questionnaire was not anonymous, as the students’ grades throughout the academic year were needed to answer the research questions.

In order to evaluate the results in the most objective way, only those educators who delivered both lectures and seminars in a particular subject were invited to participate in the survey. The educators also provided their name and basic demographic information (age, education level, type of position and educational experience (number of years)). The absence of anonymity decreased the number of observations.

All the participants (the students and lecturers) completed an EI-measurement form developed by Lucine (2006). Lucine’s questionnaire consists of 46 statements. For each statement, the participants had to choose their level of agreement or disagreement on a five-point Likert scale ranging from “absolutely agree” to “absolutely disagree”.

**Statistical analysis**

The data were analysed with the Stata program using correlation analysis and panel data analysis. The regression techniques allowed us to take advantage of cross-sectional time-series data. Fixed effects were also investigated in this research.

Observation stands for the subject taught by a particular educator. The subject is considered as a time variable. The students’ grades, students’ EI and the educators’ EI are the variables identifying the case element of our panel. In total, there are 329 observations.

**Results**

The average EI of students in the management programme sample was 83.2, while the average EI of the educators was 87.8. Even though the educators’ EI exceeds that of the students by more than four points, the results of both groups of respondents are within the average range for EI, according to the Lucine test.

The definitions and descriptive statistics of the variables taken from the survey and used throughout this article appear in Table 2.
Table 2. Variable Definitions and Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade</td>
<td>Academic result that the student gets for a particular subject</td>
<td>7.34</td>
<td>1.474</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td><strong>Independent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students’ EI</td>
<td>Students’ level of EI</td>
<td>82.60</td>
<td>14.150</td>
<td>55</td>
<td>131</td>
</tr>
<tr>
<td>Educators’ EI</td>
<td>Educators’ level of EI</td>
<td>88.27</td>
<td>12.572</td>
<td>63</td>
<td>107</td>
</tr>
<tr>
<td>Age of students</td>
<td>Age in years of respondents (students)</td>
<td>18</td>
<td>22</td>
<td>19.81</td>
<td>1.079</td>
</tr>
<tr>
<td>Educator Experience</td>
<td>Years of formal teaching experience of educators</td>
<td>2</td>
<td>27</td>
<td>13.78</td>
<td>8.113</td>
</tr>
<tr>
<td>Educator qualifications</td>
<td>Dummy variable: 1 if a respondent (educator) has qualification in the discipline that he/she delivers, 0 if otherwise</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Educator degree</td>
<td>Dummy variable: 1 if a respondent (educator) is a full professor, 0 otherwise</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

NOTE: Number of observations = 329.
The results of the bivariate correlations are presented in Table 3.

### Table 3. Correlations between variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Students’ EI</th>
<th>Educators’ EI</th>
<th>Grade</th>
<th>Age of students</th>
<th>Educators Experience</th>
<th>Educator qualifications</th>
<th>Educator degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ EI</td>
<td>1.000</td>
<td>-.001</td>
<td>-.144**</td>
<td>.002</td>
<td>-.007</td>
<td>-.020</td>
<td>.013</td>
</tr>
<tr>
<td>Educators’ EI</td>
<td>-.001</td>
<td>1.000</td>
<td>.107</td>
<td>-.062</td>
<td>-.328**</td>
<td>.020</td>
<td>-.142*</td>
</tr>
<tr>
<td>Grade</td>
<td>-.144**</td>
<td>.107</td>
<td>1.000</td>
<td>.033</td>
<td>-.238**</td>
<td>-.046</td>
<td>-.013</td>
</tr>
<tr>
<td>Age of students</td>
<td>.002</td>
<td>-.062</td>
<td>.033</td>
<td>1.000</td>
<td>.126*</td>
<td>.234**</td>
<td>.286**</td>
</tr>
<tr>
<td>Educators Experience</td>
<td>-.007</td>
<td>-.328**</td>
<td>-.238**</td>
<td>.126*</td>
<td>1.000</td>
<td>-.189**</td>
<td>-.022</td>
</tr>
<tr>
<td>Educator qualifications</td>
<td>-.020</td>
<td>.020</td>
<td>-.046</td>
<td>.234**</td>
<td>-.189**</td>
<td>1.000</td>
<td>-.050</td>
</tr>
<tr>
<td>Educator degree</td>
<td>.013</td>
<td>-.142*</td>
<td>-.013</td>
<td>.286**</td>
<td>-.022</td>
<td>-.050</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**p < .01

Grade was significantly and negatively related to students’ EI (r = -.144, p < .01). The negative correlation between students’ EI and their academic results can be explained by a student not caring about getting the highest grades, but trying instead to find some balance between student life, private life, family, and work experience.

Educator experience was significantly and negatively related to Grade (r = -.238, p < .01), Educator’ EI (r = -.328, p < .01) and Educator qualifications (r = -.189, p < .01). It is assumed that the level of experience of educators negatively relates to students’ grades, as teachers can sometimes miss students’ mistakes at the beginning of their university careers, whereas they require more of their students as they become more experienced. Hence, our research suggests that the more experience an educator has, the less flexible he/she becomes in his/her relationship with students; this is reflected in the decreased EI level.

The Age of students was significantly related to both Educator qualifications (r = .234, p < .01) and Educator degree (r = .286, p < .01). Therefore, this means that senior students have more respect for university professors and their input in professional development.
No significant relationship was found between an educator’s EI and the EI of his/her students.

Table 4 presents the results of the fixed effects regression.

**Table 4. Regression model**

| Regression features | Coef  | Std. Err. | t     | P>|t|  | [95% Conf. Interval] |
|---------------------|-------|-----------|-------|------|---------------------|
| Students’ EI        | -.102 | .083      | -1.23 | .220 | -.265 -.061         |
| Educators’ EI       | .005  | .005      | 1.00  | .319 | -.005 .015          |
| Age of students     | 0     | (omitted) |       |      |                     |
| Educators Experience| -.026 | .008      | -3.27 | .001 | -.041 -.010         |
| Educator qualifications| -.545 | .150     | -3.63 | .000 | -.841 -.249         |
| Educator degree     | .039  | .130      | .30   | .764 | -.218 .297          |
| _cons               | 15.963| 6.942     | 2.30  | .022 | 2.290 29.636        |
| rho                 | .725  |           |       |      |                     |

The Age of students variable was omitted because of collinearity. The coefficients for the variables Educator experience and Educator qualifications are negative and significant. The other variables in the current regression are not significant. The model has good explanatory power, as confirmed by the percentage of correct predictions (72.5%).

Although the EI of students and educators does not have a significant influence on students’ academic results, educators’ experience has a negative impact on students’ grades. This means that the more years an educator has worked at the university, the higher his/her expectations of students and the knowledge they should obtain. Another reason for this relationship is the fact that an experienced professor has the opportunity to compare the results of current students with those of his/her previous ones. Hence, the requirements on students rise every year.

The second significant variable in the regression model is Educator qualifications. Its negative relation to students’ academic results could be explained by the advanced knowledge of educators in their specific field of study, which he/she wants every student to gain. However, not all students show the desired interest in a particular subject.
Therefore, we have obtained the following conceptual model of our research (Figure 2).

![Diagram](image-url)

Figure 2. Investigation model

Figure 2 shows the factors that could influence students’ academic results. A plus designates a connection with a factor that has an impact on the students’ grade, a minus designates a connection with a factor whose effect was not confirmed.

**Discussion of findings**

The current situation at the university demonstrates that both students and educators have an average EI level, with the latter’s being slightly higher. This situation may be considered as an opportunity to develop the EI of both groups of respondents. The development of students’ EI could help them to adapt to university and to engage in social networks. The improvement of educators’ EI could lead to their enjoying better relationships with their colleagues and the growth of professional networks crucial to scientific and academic work. It could also improve relationships between both educators and students.

Our empirical study has not proven that there is a correlation between an educator’s EI and the EI of his/her students. This is possibly partly due to their social networks both inside and outside the university. Internal social networks at university include students from different educational programmes and courses, professors teaching various subjects and research laboratory and administrative staff. All of these representative groups have interrelationships with one another, and influence a particular student’s EI. Therefore, it is a challenge to estimate the influence of an individual person, excluding other factors.
The regression model detected two significant variables in students’ academic performance – the educator’s experience and his/her qualifications, which both negatively affect students’ grades. These results could be explained by the assumption that teachers might miss students’ mistakes at the beginning of their university careers; however, as educators become more experienced, they require more of their students. Therefore, research on EI in higher education should not discount the significance of these factors.

The dependent variable – students’ EI – is insignificant in the regression model. Some studies have shown that students’ academic results depend on their EI. However, our correlation analysis proved that there is a negative relationship between these two variables. This might have occurred due to students’ engagement in numerous activities in their pursuit of a work-life balance. Another reason for the observed negative relationship could be the fact that EI promotes students’ soft skills, while subject grades depend mostly on the student’s individual knowledge and his/her hard skills. We suppose that EI can influence grades in group projects; however, group projects occupy a relatively low share of the curriculum.

This research is a step toward a better understanding of the role of EI in the educational process at universities. A limitation of our study is that it was only conducted among the students within the Management Department. The involvement of students from other departments would enrich the results and give a clearer picture regarding the influence of EI on students’ university careers. Future research is needed to analyse how students’ EI changes over their four years of university studies. EI research in higher education in Russia could be useful to scholars who study the features of the educational process and for those who are interested in international aspects of education.

References


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