Emotional intelligence development: necessary modern technologies in students training

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Abstract. It is very important for a specialist to be able to make a deliberate, balanced choice when making a decision, not to succumb to momentary emotions. The ability to recognize and manage one's own emotions is an important professional quality, on which professional efficiency depends; these are all components of emotional intelligence. Using N. Hall's method of diagnosing emotional intelligence, we analyzed emotional intelligence of Western branch of The Russian Presidential Academy of National Economy and Public Administration students according to five main indicators: Emotional Awareness, Managing Emotions, Self-Motivation, Empathy, Managing of other people's emotions. We conducted a variable-based analysis of the obtained indicators characterizing the components of emotional intelligence. As a result of the study, we found that the indicators "Managing emotions" and "Emotional awareness" are close to an inverse linear relationship – and their distribution does not obey the laws of normal distribution of a random value. We found that the distribution according to the scales "Emotional awareness" and "Managing Emotions" has significant left-sided asymmetry, i.e. demonstrate values below expected. In order to improve the training of students, we designed the content part of a new educational technology – "Emotional literacy development" course to form important professional qualities of specialists and contribute to ensuring global security.

1. Introduction

The great French thinker, philosopher Michel Montaigne wrote that a person's life is "a series of random events that happen to us throughout our live." [1].

At the same time, an event is "a phenomenon, a part of reality, something that happens, that has a beginning and an end and can be defined in terms of change" [2]. A person evaluates each event and one’s reaction can be emotional or deliberate and balanced. Emotional response is shaped by personal emotional intelligence (EQ). The deliberate and balanced response is shaped by personal cognitive intelligence (IQ) (figure 1).
Figure 1. Combination of the subject’s reactions constitutes one’s behavior and sets conditions for achieving success in life.

Charles Swindoll, a famous Christian pastor, writer and pedagogue, wrote that «Life is 10% what happens to you and 90% how you react to it» [3]. According to Charles Swindoll, «Attitude, to me, is more important than fact. It is more important than the past, than education, than money, than circumstances, than failure, than success...» [3].

An emotional reaction to events often leads to negative consequences and, in the future, may have a significant impact on a personal life success. For example, a supervisor details a specialist for duty on a New Year’s Day. The specialist considers this unfair because last year he already accomplished duty on New Year’s Day, and reacts very emotionally to orders, violating the basic principle of subordination, and provoking a conflict that affects the relationship between the chief and the subordinate. Thus, the emotional intelligence of the specialist negatively influences the assessment of the event, that has an impact on the success of his official activity, i.e. achieving personal life success.

Such scientists as E. Thorndike, J. Guilford, G. Eysenck (concepts of social intelligence), J. Mayer, P. Salovey, D. Caruso, D. Goleman (emotional intelligence as a model of abilities) [4, 5], G. Gardner (theory of multiple intelligences), R. Bar-On, W. Payne (emotional and social intelligence) [6], F. Karry (leader’s emotional flexibility, how soft-skills allow to reach high results) made a significant contribution to studies of the emotional intelligence concept [7, 8].

Emotional intelligence is the ability of a person to recognize emotions, understand the intentions, motivation and desires of other people and their own, as well as the ability to manage their emotions and the emotions of other people in order to solve practical problems [9].

In modern economy of the Russian Federation there is no such worker who would not use knowledge about emotions and their influence on behavior in competitive struggle during building a career. Skillful management of personnel is the key to a successful career.

The famous Russian writer Alexander Pogossky in the collection "Soldiers’ Notes" (1855) wrote: "A bad soldier who does not think of becoming a general..." [10]. At the dawn of his career, every employee dreams of a brilliant career, but not everyone succeeds. Many difficulties await a young worker along this way, ranging from weak motivation, professional training, management skills and ending with banal bad luck, but, according to the majority of specialists who rose to the high post, one of the main reasons for a successful career was the ability to make balanced decisions, not succumbing to momentary emotional outbursts, and the ability to manage their own emotions in interaction with bosses and subordinates. And all of these is part of emotional intelligence.

To date, no systemic studies of emotional intelligence have been conducted in higher education institutions. In this article, we presented the results of a study on the emotional intelligence of graduate students and make some conclusions.

2. Materials and methods
The experimental base of the research was the Western branch of The Russian Presidential Academy of National Economy and Public Administration in Kaliningrad, Russia, where 40 students of two training groups of the final year participated in the study.
The most popular and verified emotional intelligence tests are Hall, Guildford, Lucine tests, as well as the MSCEIT (Mayer-Salovey-Caruso) test [11, 12, 13].

In the study described, we used Hall’s test to determine the level of emotional intelligence development; it allows to assess the emotional intelligence of the respondent according to five main indicators: Emotional Awareness (understanding one’s inner condition), Managing Emotions (the skill of consciously controlling experienced emotions), Self-motivation (managing one’s own behavior by means of controlling emotions), Empathy (the ability to be aware of the emotions of other people, willingness to provide active, high demand support), Managing of other people's emotions (skills of influencing the emotions of other people) [14, 15].

The study uses statistical methods for processing the obtained data, such as calculating the variance, which characterizes the measure of deviation from the mean or deviation around the mean value of a property and calculating the asymmetry indicator of the observed values of the property.

3. Results and discussion

The study involved 40 graduate students of two training groups. Among the students, there were 23 males and 17 females. We offered students statements that in one way or another reflected various aspects of their lives. As table 1 indicates, distribution of levels of students emotional intelligence components intensity is not homogeneous; figure 2 visually represents the obtained results for distribution and demonstrate variation specifics.

**Table 1. The intensity of the components of emotional intelligence according to the results of testing students using the method of N. Hall.**

| Low | Medium | High |
|-----|--------|------|
| quantity | % | quantity | % | quantity | % |
| Emotional awareness | 16 | 39.1% | 16 | 39.1% | 8 | 21.7% |
| Managing emotions | 16 | 39.1% | 19 | 47.8% | 5 | 13.0% |
| Self-motivation | 9 | 21.7% | 28 | 69.6% | 3 | 8.7% |
| Empathy | 10 | 26.1% | 28 | 69.6% | 2 | 4.3% |
| Managing the emotions of other people | 7 | 17.4% | 28 | 69.6% | 5 | 13.0% |

**Figure 2. A histogram showing the distribution of indicators of the emotional intelligence components of Western branch of The Russian Presidential Academy of National Economy and Public Administration students.**
When analyzing the distribution in figure 2, we assumed that it is characterized by strong heterogeneity and differs from the normal, especially in the part concerning the scale "Managing Emotions". This assumption was verified using analysis of variance.

Summarizing the results of the mathematical analysis of the information obtained in the research, it is worth noting:

1. Indicators of the assessment scale "Self-Motivation", "Empathy" and "Managing of other people's emotions" among students of all groups are close to the normal distribution, i.e. follow the laws of normal distribution.

2. Indicators of the evaluation scale "Managing Emotions" and "Emotional Awareness" are close to inverse linear dependence, and their distribution does not obey the laws of normal distribution of a random value.

3. We discovered a low level of indicators "Emotional Awareness" and "Managing emotions" in all groups of graduating students, which is confirmed by a pronounced left-sided asymmetry of distribution.

4. Sample of indicators "Emotional Awareness" and "Managing Emotions" is not only characterized by heterogeneity, but also has a significant left-sided asymmetry, which indicates an overall low level of managing one's own emotions.

In our opinion, it is extremely important to increase the level of emotional intelligence of students of higher educational institutions due to the fact that these important skills, contributing significantly in achieving success in life, are not currently part of the educational programs of the compulsory school – that is why it they are worth paying close attention in higher education context [16]. In our opinion, the introduction of the additional course "Emotional literacy development" into the educational program, the task thereof would be to form readiness for effective interpersonal communication based on the recognition and understanding of emotions, intentions, motivation and desires of other people and their own, as well as the conscious control of behavior in order to solve practical problems by controlling one's own emotions and constructively influencing the emotions of other people can help to realize the complex development of emotional intelligence components. In our opinion, the content of the course "Emotional literacy development" should include the following sections:

Firstly, "emotional self-awareness", which forms: the ability to recognize one's emotions; the ability to understand the causes of feelings; the ability to recognize the difference between feelings and actions.

Secondly, "control of emotions" to form: skills of systemic work to increase the endurance of a suppressed condition; the ability to cope with anger; the ability to form positive feelings towards oneself and others.

Thirdly, "reading emotions" to form: the ability to look at events from the point of view of another person; the ability to analyze the feelings of other people in the process of interaction; the ability to attentively and fully listen and hear other people.

Fourthly, "establishing and maintaining relationships" to form: the ability to analyze relationships, both their own with other people and between others; basic skills for resolving conflict situations and settlement of disputes; the ability to build and adhere to the "strategy" of relationships.

4. Conclusions

Our study shows that modern higher education institutions graduates have low emotional intelligence, and its development is currently not the task of higher education. At the same time, it is possible to increase its level among students of higher educational institutions by introducing an additional course "Emotional literacy development" into the educational program.

To implement this program, trained teachers are needed to conduct trainings and interactive lectures with a high level of audience involvement. Leading teachers of the regional institute of additional education need to develop a complete set of teaching materials for the lecturers teaching this discipline.
There is perhaps no other curriculum for which the high quality of the teaching staff is of such an importance, because the way the teacher treats the audience is a model of emotional competence per se. Every time a teacher responds to one student, the remaining twenty or thirty students receive an "emotional lesson".

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