Comparative study on the emotional intelligence in a classical university

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Abstract: This paper sets out to analyze the differences in emotional intelligence for two teams of professors from the “Lucian Blaga” University in Sibiu. One team is from the Faculty of Engineering, while the other one is from the Teachers Training Department. Knowing that emotional intelligence is an important dimension for the professional success of a professor and, implicitly, that of his students, a research was undertaken to assess the four dimensions of the group EQ for both considered teams: Emotion Awareness, Emotions Management, Internal Relationship Management and External Relationship Management. The aims of the study were to determine the level of emotional competences for each team and then compare them against each other. By analyzing the results, we hoped to prove that the professors Teachers Training Department will show superiority in emotional competences compared to the team from the Faculty of Engineering and that there will be an obvious difference between the two teams. Results showed, however, that there is room for improvement on both teams.

Keywords: emotional intelligence, professor, engineering, Teachers Training Department, research, comparison, success

1. Introduction

The law for Quality of Education that is active in Romania since 2005 requires, among other standards, the certification of the quality of human resources, first of all the teachers and then the graduates.

Regarding the quality of the professors, there are three evaluation coordinates: 1. student evaluation; 2. peer evaluation and 3. evaluation from the manager of the department/faculty.

No matter how we analyze the teacher’s quality, whether we refer to the evaluation done by the students, or peer evaluation etc., one of the important dimensions for the professional life of the professor refers to his emotional intelligence. This is why, if we want to achieve the standards and quality indexes stated by law, it is necessary to determine to what extent the evaluated professors own the necessary competences, focusing mainly on emotional intelligence.

According to Daniel Goleman, “emotional intelligence refers to the capacity to recognize one’s own emotions and feelings, but also those of others, the ability to motivate and to have a better management of our spontaneous impulses, respectively the impulses present in our relations to other people” [1].

Emotional intelligence refers to qualities that are complementary to, yet distinct from the cerebral intelligence, identified by the IQ. A high level of emotional intelligence is always associated with the existence of strong relationships with others, on which the individual can count on when they are confronted with problems that imply the cooperation of others.

The emotional competency is built based on the emotional intelligence, as a gained ability, whose result is an extraordinary professional performance. This way, emotional intelligence determines the potential to master practical abilities based on the following elements: the conscience of one’s own affects, reactions and resources, motivation, self-control, empathy and sociability, while the emotional competency shows the ratio to
which we managed to transfer this potential into professional efficiency [1].

The five dimensions of emotional intelligence and the 25 emotional competences are presented in Table 1. Even if only a few of these emotional competences exist (i.e. 5 or 6 competencies), on the condition that they are evenly distributed across all dimensions of intelligence, we already have the set premises for exceptional performance.

Table 1.

<table>
<thead>
<tr>
<th>Personal: aptitudes that determine the way relate and react to ourselves.</th>
<th>Social: aptitudes that determine the quality of our relationships with others.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Self-conscience:</td>
<td>a. Empathy:</td>
</tr>
<tr>
<td>- perception on one’s own affective life</td>
<td>- to understand others and their point of view</td>
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<tr>
<td>- correct self-appreciation</td>
<td>- to help others evolve</td>
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<tr>
<td>- self-esteem</td>
<td>- sense of orientation towards work</td>
</tr>
<tr>
<td>b. Self-control:</td>
<td>- knowing to capitalize on ethnic and racial diversity</td>
</tr>
<tr>
<td>- self-control</td>
<td>- political discernment</td>
</tr>
<tr>
<td>- honesty and credibility</td>
<td>b. Sociability:</td>
</tr>
<tr>
<td>- conscientiousness</td>
<td>- exercising influence</td>
</tr>
<tr>
<td>- adaptability</td>
<td>- communication</td>
</tr>
<tr>
<td>- innovative spirit</td>
<td>- conflict resolution</td>
</tr>
<tr>
<td>c. Motivation:</td>
<td>- the art of leadership</td>
</tr>
<tr>
<td>- the desire to succeed</td>
<td>- managing change</td>
</tr>
<tr>
<td>- implication</td>
<td>- creating bonds</td>
</tr>
<tr>
<td>- initiative</td>
<td>- collaboration and cooperation</td>
</tr>
<tr>
<td>- optimism</td>
<td>- teamwork</td>
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</table>

From an analysis of the competences result the abilities, the professional competencies necessary for a professor, regardless of what level he is teaching. We talk about the professor in general, meaning those who “make a profession of faith” (professum), treating his purpose as a vocation.

Emotion management consist of the efforts of a person to express the appropriate emotions in relation to specific situations, by processing them, meaning the efforts to control the way they exteriorize what they feel.

Emotional processing is part of day to day life, regulated by rules and norms that insure social stability and the wellbeing of those involved. Each one of us chooses what, when, how much and for whom we do this emotional processing. In this way, emotions management is considered a way to “recompense respect with emotions”, meaning a gift offered to the other, sometimes unconsciously [2].

Managing the emotions of others refers to influencing the emotions of other persons and is based on the empathic role of emotions – those resulted by identifying oneself with others, to understand the way they experience reality, from an emotional point of view. In different words, empathic emotions refer to the ability of one person to understand and share the emotions experienced by others.

All these considerations were the base for designing the undertaken research.

2. Research design

Starting from the theoretical considerations on the qualities that need to be found in professors, in general, the research aims to find if there are significant differences regarding educational dimensions, between the professors integrated in Engineering Studies and those from the Teachers Training Department (TTD), all of them members of the “Lucian Blaga” University in Sibiu.

Today this university has more than 220 years of existence, starting with the Orthodox Theology Faculty, founded at the end of the 19th century (1786) to prepare future priests from the Romanian Diocese of Transylvania. Built on a classical structure, the university has today the following faculties: Theology, Law,
Languages, Engineering, Sciences, Medicine, Economic Science, Political Science, History, Journalism, with a total of 26,000 students, trained through the three fundamental cycles of the Bologna process.

In the field of engineering, the study programs are representative, covering fields of mechanical and electrical engineering, computer science, economic engineering, food, textile and agriculture engineering, with a total of 4,000 students.

The academic staff for engineering education consists of specialists having significant professional careers, with rich experience in teaching and research.

In such a context, the pedagogic quality of the engineer professor is highly important, having a significant impact on the quality of the future graduate engineer.

General idea about professors from the field of technical education is that they differentiate themselves, not always in a positive manner, from their peers from the humanities branch. The criticism addressed to these professors from the Romanian polytechnic school regard the highly algorithmic learning process, with a great accent placed on teaching and less centered on the student.

Even more, a research undertaken in 2006 and presented by the company Talent Smart [3], shows engineers with a very low score regarding emotional competencies (Fig. 1).

![Fig.1. EQ scores for different professions](image)

On the other hand, the professors from the Teachers Training Department are mainly pedagogues, psychologists, but also methodologists with initial training in different scientific domains: literates, historians, engineers, economists etc. The main focus of these professors is forming students with the necessary competencies for the didactic profession. In this context, we can assume that professors in this department have these competencies at a superior level.

As a result, the proposed objectives of this paper have been:
1. Determining the level of emotional competencies for the professors in the engineering programs.
2. Determining the level of these competencies for the professors of the Teachers Training Department.
3. Making a comparative analysis of the two categories of professors, with the determination of intervention directions.

The starting point for the research analysis was the following assumptions:

a. The research results will show superiority in emotional competencies owned by the professors from the Teachers Training Department, because of their initial training.
b. There will be an obvious difference between the two analyzed categories.

The research included a sample of over 80% of the professors from the Faculty of Engineering and over 90% of the professors from the Teachers Training Department and the evaluation and processing technology were purchased from the American company Talent Smart, renowned for the high scientific accuracy rate of its researches. The questionnaires were filled out online by each participant, in a preset time interval, in order to offer enough time for the research.

Data processing was done by the American company, which, three days after the tests finished, communicated the results [4].

The research results were communicated to the two research teams, and they are presented below.

The Engineering team has a certain emotional intelligence. On a small scale, it is
based on the emotional instruments of each of its members. On a large scale, it is based on the behavioral standards that the group, as a whole, accepts. Not only one member needs to have a high EQ, but the team as a whole, each of its members participates in defining the group EQ.

The team EQ describes the way in which the members of the team perceive emotions and how they actually manage these emotions. As with the individual emotional intelligence, we have the same four dimensions for the team EQ:

1. Emotional awareness;
2. Emotion management;
3. Internal Relationship Management;
4. External Relationship Management:

These four dimensions were analyzed, considering motivation as part of the Emotion Management dimension.

The questionnaire has 27 questions covering all 4 dimensions (Fig. 2).

The overall Engineers team Emotional Intelligence score is 75 (Fig. 3) and for the Teachers from the Teachers Training Department the overall score is 80 (Fig. 4).

Usually, higher team EQ scores are in the 80s and 90s. Lower team EQ scores are in the 50s and 60s.

Emotional Awareness is the team’s ability to accurately identify the emotions in the group as they happen and understand each member’s general tendencies for responding to situations. For the Engineers team it is 80. It is the best obtained score, which highlights the fact that there are a few situations where our team doesn’t demonstrate emotionally intelligent behavior. Surprisingly, the score of the Teachers team is not very high (83). There are a few situations where the Teachers team doesn’t demonstrate emotional behavior. There are many things the two teams have done well to receive this score and a few that could be improved with some practice.

Emotion Management is the team’s ability to respond to each other constructively in emotionally uncomfortable situations and influence emotions in constructive way. The score is 75 for Engineers team. They are aware of some of the behaviors for which they received the score and are doing well with them. Other emotionally intelligent behaviors in this group are holding them back. The Teachers team has not scored much better, with only 79. This score determined the Teachers to make this the starting point in analyzing their own emotional intelligence.

Internal Relationship Management is the team’s ability to interact effectively with each other in order for the team to be able to react to difficult or challenging situations. In this case, the Engineers’ score is 71, the lowest of all, also reflected in the students’ remarks regarding the behavior of engineering professors. We notice a significant difference to the score of the Teachers team. Regarding
strengths and weaknesses, this dimension can be interpreted as strength for the Teachers.

External Relationship Management is the team’s ability to interact effectively across the organization’s boundaries and with outsiders parties. For the Engineers team, the score is 73. This score is also unsatisfactory. It is visible through the fact that, even though it is part of a university with a classical structure, the Faculty has not developed too many cooperation and collaboration programs for inter- or trans-disciplinary themes. For the professors from the Teachers Training Department, it is a slightly better score that can be converted, through exercise, in a strong point for the team.

All scores on the Emotional Intelligence Appraisal are measured on a 0 to 100 point scale. Scores tend to fall much like we would expect.

3. Interpreting the results

An analysis of our teams’ score profile suggests the Engineers group will get the most from the development effort by working on: Internal Relationship Management (71). This relationship tells about the weak communication inside the team. The considered focus-group showed that disagreements are constantly present within the team, blocking the process of taking constructive decisions. This EQ dimension is in direct relation to the psycho-social competences. Because engineers don’t score high in conflict management makes it obvious that personal interests exceed group interests. In order to be able to comply to the psychological particularities of those they work with, professors need to prove that they can do this first with their own colleagues. But the obtained score proves quite the contrary.

Unlike the engineers, professors from the TTD have a much better score (82), that actually shows the team’s unity. The Teachers group is more homogenous, communicates better, discusses problems linked to the current activity and they rarely come to conflict and conflicts are easily managed.

Today, when the Romanian education system, as well as the European one, suffers multiple transformations, education is changing. But the score for the Internal Relationship Management for the Engineers does not encourage change. All consequences derived from change translate in a lower EQ index of the group. This affects most certainly the quality of the engineering educational act.

As an important point of the training program for engineers, besides behavioral adjustments, a modification of the perspective on conflict and an acceptance of change, with all its obstacles, must be foreseen. We do not believe that training for the TTD professors is necessary in order to improve this dimension. It is without doubt that the average age of the team (approx. 38 years) has an influence on this, because, as shown by the studies, the emotional intelligence of an individual increases with age.

The next dimension where engineers scored low is External Relationship Management (73). In a classical university, like ours, communicating with students and with other teams is not only unavoidable, but also very useful, considering the mutual influences the groups have on each other. This dimension directly affects the communication and relationship competencies of the group, also attracting certain conclusions regarding the engineering professors’ abilities to communicate with students. What can there be done? Of course, there is a need for multiple trainings to improve this dimension, trainings through which the professors learn and exercise active listening, assertiveness and empathy.

Relationship management must not only be viewed as a way to promote a friendly attitude. Managing relationships is translated through an attitude with a precise purpose: orienting colleagues, but also students, in the right direction, regardless if it is a new teaching method or a new vision on the curricula.

Surprising is also the score for the TTD teachers (79). Although they were convinced of a high score for this dimension because of the multitude of contacts with the external
environment, the reality shows that this is rather a weak spot. Without any doubt, urgent measures are necessary, in order to improve this dimension, even more as we talk in education about the triumvirate professor-student-family/community.

A third unsatisfactory dimension is Emotion Management: 75 for engineers and 79 for teachers from TTD. It directly reflects in the psycho-social competencies, as well as in those for communicating and relationships, or group management. In other words, this score directly emphasizes the scores obtained for the competences necessary for the didactic profession.

Without talking about a low value for this score, its mediocrity can be of no use for us, because an inadequate management of emotions leads to scattered teams, which have difficulties in building on common values, as opposed to cohesive, successful teams.

By analyzing this score in the TTD, the conclusion was drawn on the influence the didacts’ team (more than 60%) has on the total of the group, these being professors formed in environments different than those of educational sciences, thus benefitting from a rather technical training than a vocational one.

All these considerations mark the forming of a team based on professional intelligence as compulsory. But a note with a highly pronounced educational accent is required: if everyone is unanimous in recognizing the benefits of this intelligence, why don’t we accept the idea of preparing student generations even from their initial learning years with this type of intelligence? The change would be without any doubt beneficial for everyone. Teaching, thus exercising the EQ dimensions, teachers and engineers would master themselves these coordinates and students would have these dimensions formed from an early age, which will be beneficial for their future workplace, but also for their family and social life.

We left the Emotional Awareness conclusion for last, because it is the one that brings hope. A score considered high like 80 (for engineering professors) and 83 (for pedagogues and didacts from TTD) shows that both pedagogues and engineering professors have started to be aware of their own emotions, thus facing their collective emotional reality. We consider this a first step because, usually, after teams confront this emotional reality, they start to reexamine common habits. Thus, self-control is favored.

Emotions are contagious and team members collect emotional clues from each other, regardless if they are positive or negative. If the team is incapable of understanding emotions of rage from one of its members, these emotions can create a chain reaction. But if the team has learned to recognize and be aware of emotions, it will face such moments skillfully, and thus, the dissatisfactions of one team member will not lead to the dissatisfaction of the entire group. We can even say that, by adequately exercising the dimensions of emotional intelligence, having Emotional Awareness as a base, we can obtain visible increases of those dimensions that are now dissatisfactory.

Anyhow, if we wish to test and develop the competencies required by the didactic profession, we need to focus on those which, from an EQ point of view are still poorly developed. Thus we need to create dimension development programs that will be accepted and valued by our faculty staff.

This research can be a benchmarking point in order to detect the best available practices existing at university level regarding the dimensions of emotional intelligence. This is easiest done by analyzing the evaluations made by students for their professors.

4. Conclusions

We can conclude that the emotional abilities of the professors at the TTD are superior to those of the colleague professors from the Faculty of Engineering, but without major discrepancies, able to overthrow the standings. Paradoxically, there are no major differences in the level of mastering these competencies.

In order to increase emotional competencies of all the staff from the
university’s faculties, we can use the algorithm in Fig.5.

The abilities of emotional intelligence are essential to teaching and training. Let’s not forget that today’s students are the leaders of tomorrow. This conditions success, because, as Robbins said: “Without emotional intelligence, even a person with remarkable training, with a highly analytical mind, with long term vision and with a never-ending potential for formidable ideas may not become a great leader. This is true, especially when individuals advance in an organization. The higher the position of a person is, who is appreciated as an exceptional performer, the more the capabilities of their emotional intelligence stand as a reason for their success” [5].

It is the duty of professors to create the frame for developing such competences, which the graduate will then put to use in life, to construct their career and success. But let’s not forget that, as Henry Ford said: “Coming together is a beginning. Keeping together is progress. Working together is success.”

References: