

The Relationship between the Reflective Thinking Skills and Emotional Intelligences of Class Teachers¹

Zuhal GUVENC (MEd)
Ministry of National Education
Teacher Denizli
Turkey

Assist. Prof.Dr. Kazim CELIK (Ph.D.)
Pamukkale University
Faculty of Education Denizli
Turkey

Abstract

This study has been conducted with the aims of disclosing the levels of emotional intelligence of class teachers and sub-branches of emotional intelligence (self-consciousness, organizing and managing emotions, self-motivation and social skills), the levels of teachers at reflective thinking skills, finding out any difference within class teachers regarding the certain variables like sex, professional seniority, educational background, the number of the students of class teachers, uncovering the relation between emotional intelligences of class teachers and reflective thinking skills and the extent to which emotional intelligence influence reflective thinking skills. As data collecting tools, “The frequency scale of use of Emotional Intelligence Competencies in Professional Life of Instructors” which is adapted by Titrek (2004b) and “The scale for determine the level of reflective thinking of class teachers” by Dolapcioğlu (2007) were implemented. Research data have been analyzed by means of statistical arithmetic average, t-test, F-test (Variance Analysis), LSD test, linear regression analysis and Pearson correlation coefficient. The study suggests that there is no significant difference regarding the emotional intelligence perceptions of teachers in terms of above-mentioned variables like sex, educational background and number of the students of class teachers. Unlike those variables, class teachers have shown a significant difference as to perception of emotional intelligence according to one variable, “professional seniority”. A significant difference has been found out as motivating the emotions in line with sex variable, organizing and managing emotions and self-motivation regarding the “professional seniority” at the statistical level of 0.5. There is no significant difference among class teachers as for the perceptions of reflective thinking skills according to the variables, sex, professional seniority, educational background and number of the students those taught. This study has also revealed a significant relation between sorts of emotional intelligence of teachers and reflective thinking skills of teacher.

Key Words: Reflective Thinking, Emotional Intelligence, Class Teacher

1. Introduction

The emotions are strong organizers, here triggers, of ideas and actions. Though the fact that emotions are always found in strict contradictions within themselves, they are prerequisite conditions in order that someone can hold significant judgments and reasoning (Cooper & Sawaf, 1997: xii). The recent neurological findings have shown that emotion stands for an indispensable source of life for the brain to reach at higher levels of judgments (Cooper & Sawaf, 1997: xxx). While the intelligence was early defined in the context of mental and cognitive aspects, it has recently been viewed that emotions particularly have significant relation with the intelligence. The latest approach viewed as important in this sense is Emotional Intelligence theory suggested by Gardner (Gardner, 1999; Titrek, 2004a: 243).

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The theory of Emotional Intelligence is an approach suggesting that emotions give assistance to the individuals to shape their environments, finding their routes. In other words, emotions are viewed as practical data source so that emotion and intelligence are adjoined between each other (Salovey and Grewal, 2005: 281). It has recently been stated that mere academic intelligence cannot meet the demands of the individuals' needs of change and readiness to the life possibilities adequately. The role of emotional intelligence is mostly discarded in the process of forming the lives of coming individuals even though higher levels of IQ don't guarantee wealth, prestige and welfare (Goleman, 2009: 64). Unlike common arguments, some people admit that it is one of the secrets of psychology that levels of IQ, points of University Entrance Exams cannot put forward perfect predictions about individuals' lifelong successes (Goleman, 2009: 62). As Sternberg (1996) stated, "People are still convinced of the IQ, but no longer it is reliable..., we are supposed to direct our attention to the view that no intelligence exists without spirit". Henceforth we should pay attention to emotional intelligence (Cooper and Sawaf, 1997: xxx). The recent research has found out that individuals who are popular with their high level academic intelligence are not always found as most successful people in their professional and personal lives (Goleman, 2009; Cooper and Sawaf, 1997). Since we cannot make ourselves sure about that life-long success of individuals is determined by taking glance at their IQ levels or academic intelligences, it is an essential consequence that cognitive attributes of individuals should be consolidated with the affective ones of individuals.

To Bar-On (1997), emotional intelligence reflects an individual's ability to cope with the obstacles around and emotional intelligence helps people to make predictions about their Professional and personal achievements (Singh, 2006: 108). People who have reflective thinking skills can present solutions to the facing problems and such people are trained and educated mostly thorough reflective learning and instruction. That is, reflective learning and instruction have significant roles in development of individuals with reflective thinking skills. Students who are subject to reflective learning can assess and evaluate the activities they carry out, derive messages out of learning/teaching experiences, solve problems and convert the future professional life to a more meaningful by using the instruction and learning experiences. Reflective learning can be modeled like the previous definition (Gur, 2008; Duban & Yelken, 2010: 344). Both reflective learning and instruction calls for us to acquire experiences in personal and Professional development and practice these experiences in future.

In effect, reflective thinking is a philosophical concept. This concept converges with progressive arguments which are based on pragmatism in philosophy. According to (Gur, 2008; Duban ve Yelken, 2010: 344), "Pragmatist education philosophy seeks for the essence of education in rebuilt of experience every time disregarding the conformity with morality, virtue, values and standards of community. Future experiences guide the future behaviors towards better consequences.

To Goleman (2009), emotional intelligence gives us opportunities to get to know emotions of ourselves and other people, learn to evaluate those, respond to emotions appropriately by reflecting the energy and perceptions of emotions into daily lives and professional lives. Teachers are expected to be aware of importance of reflective thinking and they are also equipped with reflective thinking skills so that they can keep up with the recent innovations in education field, put their learnings into practice and evaluate and assess their learnings in the context of scientific criteria and experiences (Altinok, 2002: 72). Anna Freud strongly believes in that social and emotional capabilities are based on one's being aware of oneself, reflecting oneself and perception of the experiences (McPhail, 2004; Diken, 2007: 12). As Anna Freud states, self consciousness referring to one's reflection and being aware of oneself and empathy standing for understanding other people's emotions. According to Goleman (2009: 71), individuals being aware of their emotions control their lives more easily than those unaware and such individuals can easily make themselves sure about how to work and whom to get married.

2. Method

This study aiming at investigating the relation between emotional intelligence levels and reflective thinking skills of class teachers is conducted using relational scanning model.

2.1. Study Group

The study population is intended to be composed of class teachers in the 2010-2011 Academic year in Turkey. The subjects are composed of class teachers working in primary schools in Kucukcekmece County in Istanbul. The study indicates 293 class teachers as samples; those were randomly chosen out of 1200 class teachers.

Male teachers account for 60.1 % (176 samples) and females represent 39.9 % (117 samples). 105 (35.8 %) of class teachers are reported to have teaching experience of 5 years or less, 98 (33.4 %) are found to have experience for 6-10 years, 52 (17.7 %) of those are reported to have experience of teaching for 11-16 years, 38 (13 %) are stated to have experience for 16 and over years. Regarding their educational backgrounds, 256 (87.4 %) teachers are graduates from education faculties and 37 (12.6 %) teachers are graduates from other departments. As for the number of pupils those are taught, 105 (35.8 %) of class teachers teach in classrooms where student number changes from 5 to 34, 136 (46.4 %) of class teachers teach in classrooms with student numbers changing from 35-44, and 52 (17.7 %) of class teachers teach in classes with student numbers of 45 and over.

2.2. Tools

The Frequency Scale of Use of Emotional Intelligence Competencies in Professional Life of Instructors: The scale used with the aim of investigating the emotional capabilities is adapted from doctoral thesis titled as “ A Comparative Study Relation to the levels of Academic Success and Use of Emotional Intelligence Capabilities in professional life of Education Faculty Instructors” by Titrek (2004b) The scale of capabilities of emotional intelligence is prepared in the format of quintet degree in the likert-scale type. The scale includes the options of ‘Never (1)’, ‘Rarely (2)’, ‘Sometimes (3)’, ‘Often’ (4), ‘Always (5)’. While the findings are assessed through this scale, some subscales are also implemented. The consistency coefficients of self consciousness are found out .76, subscale of control of emotions is found as .79, motivating the emotions is at .87, empathy is reported at .86 and social skills are found at .92.

The Scale for Determining the Level of Reflective Thinking of Class Teachers: This scale implemented with the aim of analyzing the reflective thinking skills is taken from the graduate thesis with the name of “Evaluation of Levels of Reflective Thinking Skills of Class Teachers” by Dolapcioglu (2007). This scale is a fivefold likert-scale. The scale includes the options of ‘Never (1)’, ‘Rarely (2)’, ‘Sometimes (3)’, ‘Often’ (4), ‘Always (5)’. In this study, Cronbach alpha consistency coefficient required for the reliability of scale is found as .93.

Personal Identification Form: Personal Identification form prepared by the researcher gives information about four variables like genders of class teachers, professional status and background, educational background and number of students those are taught by these individuals.

2.3. Data Collection

After taking the official permission for the scales, the scales are implemented to 293 class teachers working in Kucukcekmece County of Istanbul Province starting from 2010 September to 2011 January. The scales are administered to class teachers in the session of meetings between teachers and researchers individually one by one in the schools.

2.4. Data Analysis

Before analyzing the tests administered in the study, it has been found out that scores at both levels of emotional intelligence and reflective thinking skills have shown a normal distribution of a significance at 0.05 through Kolmogorov & Smirnov tests which is conducted to determine whether the tests’ results have normal distribution or not. For this reason, parametric tests have been used in the analysis of collected data. The tests all included data about emotional intelligence levels of class teachers and sub-dimensions of emotional intelligence (self-consciousness, organizing and managing emotions, self- motivation and social skills), average perceptions of reflective thinking skills, standard deviations, response intervals. T-Test was administered to determine the differences according to the variables of sex and educational background. F-Test (Variance Analysis) was used to determine the differences according the variables of professional status and number of students to whom class teachers train. In case of differences within groups, LSD test was implemented to find out the source of difference. Statistical analysis accepted the significance level at .05. Additionally, linear regression analysis was administered to compare the correlation between 2 scales. The relation between the dimensions of emotional intelligence and reflective thinking skills was analyzed via Pearson correlation coefficient.

3. Findings

Table 1 gives information about the responses of class teachers to the emotional intelligence and dimensions of emotional intelligence (self-consciousness, organizing and managing emotions, self- motivation and social skills), and reflective thinking skills.

Table 1. Statistical Values Depicting the Perceptions of Class Teachers related to the levels of Emotional Intelligence and Reflective Thinking Skills

| | N | Lowest \bar{X} | Highest \bar{X} | Normal \bar{X} | Level | Ss |
|----------------------------------|-----|---------------------|----------------------|---------------------|--------|-----|
| Self consciousness | 293 | 3.33 | 5.00 | 4.26 | Always | .37 |
| Organizing and managing emotions | 293 | 3.27 | 4.93 | 4.26 | Always | .34 |
| Self-motivation | 293 | 2.43 | 5.00 | 4.06 | Often | .44 |
| Empathy | 293 | 2.75 | 5.00 | 4.14 | Often | .47 |
| Social Skills | 293 | 2.47 | 5.00 | 4.06 | Often | .49 |
| EQ Average Points | 293 | 3.07 | 4.92 | 4.15 | Often | .36 |
| RT Average Points | 293 | 2.78 | 5.00 | 4.20 | Always | .43 |

As it can be interpreted from Table 1, perceptions of class teachers related to the levels of emotional intelligence appear at 'Very Often' level. The perceptions of class teachers related to reflective thinking skills are found out at 'Always' level. As for the dimensions of emotional intelligences, we can form an order within the dimensions of which perceptions appear at 'Always' level. Starting from the highest perception to the lowest perception, the order starts with *organizing and managing emotions* and ends with *self consciousness*. The order of dimensions which appear at level of 'Often' starts with *empathy*, which is followed by *self-motivation* and ends with *social skills*.

Table 2 shows t-Test scores which is conducted to depict the perceptions of class teachers related to emotional intelligence sub-dimensions (self-consciousness, organizing and managing emotions, self-motivation and social skills), and reflective thinking skills according to the sex variable.

Table 2. Perceptions of Class Teachers related to reflective thinking skills, emotional intelligence and its sub-dimensions. (T-Test scores)

| | Sex | N | \bar{X} | Ss | T | Sd. | p |
|----------------------------------|--------|-----|-----------|------|------|-----|-----|
| Self Consciousness | Female | 176 | 4.29 | .34 | 1.60 | 291 | .11 |
| | Male | 117 | 4.21 | .40 | | | |
| Organizing and managing emotions | Female | 176 | 4.25 | .32 | 6.12 | 291 | .54 |
| | Male | 117 | 4.28 | .37 | | | |
| Self-motivation | Female | 176 | 4.01 | .42 | 1.99 | 291 | .05 |
| | Male | 117 | 4.12 | .46 | | | |
| Empathy | Female | 176 | 4.15 | .42 | .23 | 291 | .86 |
| | Male | 117 | 4.13 | .53 | | | |
| Social Skills | Female | 176 | 4.04 | .45 | .44 | 291 | .66 |
| | Male | 117 | 4.07 | .54 | | | |
| EQ Sum | Female | 176 | 4.14 | 1.93 | -.44 | 291 | .66 |
| | Male | 117 | 4.16 | .401 | | | |
| RT Sum | Female | 176 | 4.24 | .41 | 1.53 | 291 | .13 |
| | Male | 117 | 4.16 | .46 | | | |

As it is shown on Table 2, no significant difference between the perceptions of male and female teachers for levels of emotional intelligence ($p > .05$). To take glance at sub-dimensions of emotional intelligence, the results have shown a significant difference at only sub-dimension of motivating the emotions in the whole group [$t(291) = 1.60, p < .05$]. To compare the moderate points of male and female class teachers in the sub-dimension of motivating the emotions, the significant difference can be interpreted like that male teachers seem to have higher points (\bar{X} Male=4.12 and \bar{X} Female=4.01). Like the results in Table 2, no significant difference has been found out between the perceptions of male and female class teachers related to reflective thinking skills ($p > .05$).

Using variance analysis, this study attempts to figure out whether a significant difference exists or not between the perceptions of class teachers related to emotional intelligence, sub-dimensions and reflective thinking skills according to the variable of professional seniority. The results of variance analysis according to the variable of professional seniority are shown in Table 3.

Table 3. Perceptions of Class teachers related to emotional intelligence, sub-dimensions and reflective thinking skills according to the variable of professional seniority (variance analysis)

| | Professional Seniority | N | \bar{X} | Ss | Sum of squares | Sd. | Average of Squares | F | p | Difference |
|----------------------------------|------------------------|-----|-----------|-----|----------------|-----|--------------------|------|-----|------------|
| Self consciousness | 5 years and - | 105 | 4.26 | .34 | 87.01 | 3 | 29.00 | 1.51 | .21 | |
| | 6-10 years | 98 | 4.21 | .40 | | | | | | |
| | 11-15 years | 52 | 4.27 | .33 | 5553.50 | 289 | 19.22 | | | |
| | 16 years and + | 38 | 4.35 | .37 | | | | | | - |
| | Total | 293 | 4.26 | .37 | 5640.51 | 292 | | | | |
| Organizing and managing emotions | 5 years and - | 105 | 4.22 | .31 | 316.21 | 3 | 105.40 | 4.19 | .00 | |
| | 6-10 years | 98 | 4.25 | .38 | | | | | | 1-4 |
| | 11-15 years | 52 | 4.22 | .32 | 7397.49 | 289 | 25.60 | | | 2-4 |
| | 16 years and + | 20 | 4.44 | .30 | | | | | | 3-4 |
| | Total | 293 | 4.26 | .34 | 7713.69 | 292 | | | | |
| Self-motivation | 5 years and - | 105 | 4.03 | .41 | 389.48 | 3 | 129.83 | 3.46 | .02 | |
| | 6-10 years | 98 | 4.00 | .48 | | | | | | 1-4 |
| | 11-15 years | 52 | 4.07 | .43 | 10849.29 | 289 | 37.54 | | | 2-4 |
| | 16 years and + | 38 | 4.27 | .42 | | | | | | 3-4 |
| | Total | 293 | 4.06 | .44 | 11238.77 | 292 | | | | |
| Empathy | 5 years and - | 105 | 4.16 | .43 | 200.66 | 3 | 66.89 | 2.12 | .10 | |
| | 6-10 years | 98 | 4.10 | .49 | | | | | | |
| | 11-15 years | 52 | 4.16 | .52 | 9131.69 | 289 | 31.60 | | | |
| | 16 years and + | 38 | 4.31 | .43 | | | | | | - |
| | Total | 293 | 4.14 | .47 | 9332.36 | 292 | | | | |
| Social Skills | 5 years and - | 105 | 4.05 | .44 | 239.58 | 3 | 79.87 | .94 | .42 | |
| | 6-10 years | 98 | 4.05 | .52 | | | | | | |
| | 11-15 years | 52 | 3.99 | .50 | 24639.75 | 289 | 85.26 | | | |
| | 16 years and + | 38 | 4.16 | .49 | | | | | | - |
| | Total | 293 | 4.06 | .49 | 24879.33 | 292 | | | | |
| EQ Sum | 5 years and - | 105 | 4.13 | .31 | 5135.69 | 3 | 1711.90 | 2.64 | .05 | 1-4 |
| | 6-10 years | 98 | 4.12 | .40 | 187442.27 | 289 | 648.60 | | | 2-4 |
| | 11-15 years | 52 | 4.13 | .36 | 192577.95 | 292 | | | | 3-4 |
| | 16 years + | 38 | 4.30 | .34 | | | | | | |
| | Total | 293 | 4.15 | .36 | | | | | | |
| RT Sum | 5 years and - | 105 | 4.20 | .39 | 804.10 | 3 | 268.03 | 2.00 | .11 | |
| | 6-10 years | 98 | 4.18 | .42 | 38615.13 | 289 | 133.61 | | | |
| | 11-15 years | 52 | 4.14 | .48 | 39419.23 | 292 | | | | - |
| | 16 years and + | 38 | 4.35 | .48 | | | | | | |
| | Total | 293 | 4.20 | .43 | | | | | | |

As it is shown in Table 3, this study has found out a significant difference regarding to the perceptions of class teachers related to emotional intelligence sub-dimensions according the variable of professional seniority [$F_{(3-289)} = 2.64, p = .05$]. No significant difference has been found out regarding to the perceptions of class teachers related to reflective thinking skills according the variable of professional seniority [$F_{(3-289)} = 2.00, p > .05$]. The results of LSD test carried out with the aim of determining the professional seniority causing the significant difference in the emotional intelligence of class teachers indicate that class teachers who have 5 year or less professional seniority are placed with significantly lower levels of emotional intelligence ($\bar{X} = 4.13$), 6–10 years ($\bar{X} = 4.12$) and 11–15 years ($\bar{X} = 4.13$) than those who have 16 year or over professional seniority ($\bar{X} = 4.30$).

According to the variable of professional seniority, class teachers have reported significant difference at sub-dimensions of organizing and managing emotions [$F_{(3-289)} = 4.19, p < .05$] and self-motivation [$F_{(3-289)} = 3.46, p < .05$]. The results of LSD test carried out with the aim of determining the professional seniority causing the significant difference in the control of emotions of class teachers suggest that class teachers with 5 year or less professional seniority are placed with strikingly lower levels of emotional intelligence ($\bar{X} = 4.22$), 6–10 years ($\bar{X} = 4.25$) and 11 – 15 years ($\bar{X} = 4.22$) than teachers with 16 year or over professional seniority ($\bar{X} = 4.44$). According to the results of LSD test implemented with the intention of determining the professional seniority giving rise to significant difference at sub-dimension of self-motivation, class teachers with 5 year or less professional seniority are placed with strikingly lower levels of emotional intelligence ($\bar{X} = 4.03$) and 6–10 years ($\bar{X} = 4.00$) ve 11 – 15 years ($\bar{X} = 4.07$) than teachers with 16 year or over professional seniority ($\bar{X} = 4.27$).

The effects of variable “education background” on the levels of emotional intelligence sub-dimensions (self-consciousness, organizing and managing emotions, self-motivation and social skills), and reflective thinking skills are analyzed with the help of *t-Test*. Table 4 indicates information about the results of *t-Test* dealing with effects of variable “education background” on the levels of emotional intelligence sub-dimensions (self-consciousness, organizing and managing emotions, self-motivation and social skills), and reflective thinking skills.

Table 4. Perceptions of class teachers related to emotional intelligence, sub-dimensions and reflective thinking skills according the variable of educational background. (t-Test).

| | Educational Background | N | \bar{X} | Ss | T | Sd. | p | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|------------------------|-----|-----------|-----|-------|-----|-----|----------------------------------|-------------------|-----|------|-----|-------|-----|-----|-------|----|------|-----|-----------------|-------------------|-----|------|-----|-------|-----|-----|-------|----|------|-----|---------------|-------------------|-----|------|-----|-------|-----|-----|-------|----|------|-----|---------------|-------------------|-----|------|-----|-------|-----|-----|-------|----|------|-----|--------|-------------------|-----|------|-----|------|-----|-----|-------|----|------|-----|--------|-------------------|-----|------|-----|------|-----|-----|
| Self consciousness | Education Faculty | 256 | 4.29 | .37 | -.14 | 291 | .89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Other | 37 | 4.25 | .37 | | | | Organizing and managing emotions | Education Faculty | 256 | 4.25 | .34 | 1.00 | 291 | .32 | Other | 37 | 4.31 | .34 | Self-motivation | Education Faculty | 256 | 4.02 | .48 | -.58 | 291 | .56 | Other | 37 | 4.06 | .44 | Empathy | Education Faculty | 256 | 4.14 | .47 | .35 | 291 | .73 | Other | 37 | 4.17 | .51 | Social Skills | Education Faculty | 256 | 4.07 | .48 | -1.29 | 291 | .20 | Other | 37 | 3.96 | .50 | EQ Sum | Education Faculty | 256 | 4.15 | .35 | -.35 | 291 | .73 | Other | 37 | 4.13 | .39 | RT Sum | Education Faculty | 256 | 4.21 | .43 | -.19 | 291 | .85 |
| Organizing and managing emotions | Education Faculty | 256 | 4.25 | .34 | 1.00 | 291 | .32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Other | 37 | 4.31 | .34 | | | | Self-motivation | Education Faculty | 256 | 4.02 | .48 | -.58 | 291 | .56 | Other | 37 | 4.06 | .44 | Empathy | Education Faculty | 256 | 4.14 | .47 | .35 | 291 | .73 | Other | 37 | 4.17 | .51 | Social Skills | Education Faculty | 256 | 4.07 | .48 | -1.29 | 291 | .20 | Other | 37 | 3.96 | .50 | EQ Sum | Education Faculty | 256 | 4.15 | .35 | -.35 | 291 | .73 | Other | 37 | 4.13 | .39 | RT Sum | Education Faculty | 256 | 4.21 | .43 | -.19 | 291 | .85 | Other | 37 | 4.19 | .45 | | | | | | | | |
| Self-motivation | Education Faculty | 256 | 4.02 | .48 | -.58 | 291 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Other | 37 | 4.06 | .44 | | | | Empathy | Education Faculty | 256 | 4.14 | .47 | .35 | 291 | .73 | Other | 37 | 4.17 | .51 | Social Skills | Education Faculty | 256 | 4.07 | .48 | -1.29 | 291 | .20 | Other | 37 | 3.96 | .50 | EQ Sum | Education Faculty | 256 | 4.15 | .35 | -.35 | 291 | .73 | Other | 37 | 4.13 | .39 | RT Sum | Education Faculty | 256 | 4.21 | .43 | -.19 | 291 | .85 | Other | 37 | 4.19 | .45 | | | | | | | | | | | | | | | | | | | | |
| Empathy | Education Faculty | 256 | 4.14 | .47 | .35 | 291 | .73 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Other | 37 | 4.17 | .51 | | | | Social Skills | Education Faculty | 256 | 4.07 | .48 | -1.29 | 291 | .20 | Other | 37 | 3.96 | .50 | EQ Sum | Education Faculty | 256 | 4.15 | .35 | -.35 | 291 | .73 | Other | 37 | 4.13 | .39 | RT Sum | Education Faculty | 256 | 4.21 | .43 | -.19 | 291 | .85 | Other | 37 | 4.19 | .45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Social Skills | Education Faculty | 256 | 4.07 | .48 | -1.29 | 291 | .20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Other | 37 | 3.96 | .50 | | | | EQ Sum | Education Faculty | 256 | 4.15 | .35 | -.35 | 291 | .73 | Other | 37 | 4.13 | .39 | RT Sum | Education Faculty | 256 | 4.21 | .43 | -.19 | 291 | .85 | Other | 37 | 4.19 | .45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EQ Sum | Education Faculty | 256 | 4.15 | .35 | -.35 | 291 | .73 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Other | 37 | 4.13 | .39 | | | | RT Sum | Education Faculty | 256 | 4.21 | .43 | -.19 | 291 | .85 | Other | 37 | 4.19 | .45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RT Sum | Education Faculty | 256 | 4.21 | .43 | -.19 | 291 | .85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Other | 37 | 4.19 | .45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

As it is shown on Table 4, the study has found no significant difference between teachers graduated from education faculties and other faculties as for the perceptions of class teachers related to emotional intelligence ($p > .05$). Additionally, class teachers graduated from education faculties show no significant difference from those graduated from other faculties in terms of perception of reflective thinking skills ($p > .05$).

The results of variance analysis administered with the aim of determining whether there exists any significant difference for the perceptions of class teachers related to emotional intelligence, sub-dimensions (self-consciousness, organizing and managing emotions, self-motivation and social skills), and reflective thinking skills according to the variable of number of students to whom class teachers give instruction are shown in Table 5.

Table 5. Perceptions of Class Teachers to the Emotional Intelligence, Sub-dimensions according to the variable of number of students.

| | Number of students | N | \bar{X} | Ss | Sum of Squares | Sd. | Average of Squares | F | p | Difference |
|----------------------------------|--------------------|-----|-----------|-----|----------------|-----|--------------------|------|-----|------------|
| Self consciousness | 5–34 | 105 | 4.23 | .38 | 22.10 | 2 | 11.05 | .57 | .57 | |
| | 35–44 | 136 | 4.28 | .35 | 5618.42 | 290 | | | | |
| | 45 and + | 52 | 4.26 | .38 | 5640.51 | 292 | 19.37 | | | - |
| | Total | 293 | 4.26 | .37 | | | | | | |
| Organizing and managing emotions | 5–34 | 105 | 4.25 | .37 | 19.23 | 2 | 9.61 | .36 | .70 | |
| | 35–44 | 136 | 4.25 | .33 | 7694.47 | 290 | | | | |
| | 45 and + | 52 | 4.30 | .32 | 7713.69 | 292 | 26.53 | | | |
| | Total | 293 | 4.26 | .34 | | | | | | - |
| Self-motivation | 5–34 | 105 | 4.10 | .47 | 95.01 | 2 | 47.50 | 1.24 | .29 | |
| | 35–44 | 136 | 4.01 | .43 | 11143.77 | 290 | | | | |
| | 45 and + | 52 | 4.09 | .43 | 11238.77 | 292 | 38.43 | | | |
| | Total | 293 | 4.06 | .44 | | | | | | - |
| Empathy | 5–34 | 105 | 4.16 | .51 | 95.67 | 2 | 47.84 | 1.50 | .22 | |
| | 35–44 | 136 | 4.10 | .47 | 9236.68 | 290 | 31.85 | | | |
| | 45 and + | 52 | 4.22 | .39 | 9332.36 | 292 | | | | - |
| | Total | 293 | 4.14 | .47 | | | | | | |
| Social skills | 5–34 | 105 | 4.04 | .50 | 205.23 | 2 | 102.61 | 1.20 | .30 | |
| | 35–44 | 136 | 4.03 | .48 | 24674.11 | 290 | | | | - |
| | 45 and + | 52 | 4.15 | .47 | 24879.33 | 292 | 85.08 | | | |
| | Total | 293 | 4.06 | .49 | | | | | | |
| EQ Sum | 5–34 | 105 | 4.15 | .39 | 1056.19 | 2 | 528.10 | .80 | .45 | |
| | 35–44 | 136 | 4.13 | .34 | 191521.76 | 290 | 660.42 | | | - |
| | 45 and + | 52 | 4.20 | .33 | 192577.95 | 292 | | | | |
| | Total | 293 | 4.15 | .36 | | | | | | |
| RT Sum | 5–34 | 105 | 4.25 | .43 | 418.76 | 2 | 209.38 | 1.56 | .21 | |
| | 35–44 | 136 | 4.16 | .42 | 39000.47 | 290 | 134.48 | | | - |
| | 45 and + | 52 | 4.23 | .45 | 39419.23 | 292 | | | | |
| | Total | 293 | 4.20 | .43 | | | | | | |

As Table 5 shows, class teachers who have students in different numbers are reported to have no significant difference regarding their perceptions to the levels of emotional intelligence [$F_{(2-290)} = .80, p > .05$]. To take more detailed look at the sub-dimensions of emotional intelligence, the effects of number of students do not change significantly as shown below: Self-consciousness [$F_{(2-290)} = .57, p > .05$], organizing and managing emotions [$F_{(2-290)} = .36, p > .05$], self-motivation [$F_{(2-290)} = 1.24, p > .05$], empathy [$F_{(2-290)} = 1.50, p > .05$], and social skills [$F_{(2-290)} = 1.20, p > .05$]. Table 5 indicates that there is no significant difference within their perceptions to the reflective thinking skills [$F_{(2-290)} = 1.56, p > .05$].

The results of linear regression analysis which is accomplished in order to determine the relation between the level of emotional intelligence of class teachers and reflective thinking skills are indicated on Table 6 below.

Table 6. The results of linear regression analysis into the relation between the level of emotional intelligence of class teachers and reflective thinking skills

| Variables | B | Standard Error _B | β | T | P |
|--|-------|-----------------------------|---------|-------|-----|
| Independent | 15.57 | 5.47 | | 2.84 | .01 |
| Level of emotional intelligence quotient | .33 | .02 | .73 | 17.96 | .00 |

R=.73 R² =.53 P=.00 F= 322.59

Having taken a detailed look at statistics on Table 6, a directly high proportionate relation appears between the levels of emotional intelligence and reflective thinking skills of class teachers.

In other words, teachers show tendency of highly positive relations between their reflective thinking skills and emotional intelligences ($r=.73$, $p<.05$). The correlation coefficient of 1.00 refers to a high positive relation while coefficient -1.00 refers to a high negative relation. Additionally, '0.00' coefficient accounts to lack of a relation. The 0.70-1.00 interval of correlation coefficient represents a strong, 0.30-0.70 interval refers to a moderate and 0.00-0.30 interval symbolizes a weak relation (Buyukozturk, 2009: 32). To this conclusion, the higher levels of emotional intelligence class teachers show, the better performance they are likely to show at using reflective thinking skills. Likewise, the decrease in the level of emotional intelligence is not unlikely to give rise to fall in the performance of using reflective thinking skills.

As it is shown in Table 6, the results of regression analysis in which emotional intelligence is held as independent variable and reflective thinking skills as dependent variable suggest that dependent variable is viewed to have significance in terms of statistical data ($R=.73$, $R^2 = .53$, $p<.05$). According to the obtained findings, the regression strength effect of emotional intelligence on the reflective thinking skills is 53 %. That is, the levels of emotional intelligence have strong effects on the use of reflective thinking skills of class teachers. The analysis of Pearson Correlation Coefficient which is conducted in order to determine the relation between the emotional intelligence and reflective thinking skills of class teachers is shown on Table 7.

Table 7. The analysis of Pearson Correlation Coefficient which is conducted in order to determine the relation between the emotional intelligence and reflective thinking skills of class teachers

| | RT Skill | EQ Level | Self Conscious | Organizing and managing Emotions | Self – motivation | Empathy | Social Skills |
|----------------------------------|----------|------------|----------------|----------------------------------|-------------------|------------|---------------|
| RT Skill | r 1 | .73 | .55 | .59 | .58 | .52 | .63 |
| | p . | .00 | .00 | .00 | .00 | .00 | .00 |
| EQ Level | r | 1 | .77 | .83 | .83 | .83 | .89 |
| | p | . | .00 | .00 | .00 | .00 | .00 |
| Self Consciousness | r | | 1 | .67 | .56 | .56 | .56 |
| | p | | . | .00 | .00 | .00 | .00 |
| Organizing and managing emotions | r | | | 1 | .66 | .61 | .61 |
| | p | | | . | .00 | .00 | .00 |
| Self-motivation | r | | | | 1 | .57 | .67 |
| | P | | | | . | .00 | .00 |
| Empathy | r | | | | | 1 | .69 |
| | P | | | | | . | .00 |
| Social skills | r | | | | | | 1 |
| | p | | | | | | . |

Having analyzed the findings on Table 7, the direction of the relation between reflective thinking skills and all sub-dimensions of emotional intelligence emerges at positive extent. Although relation between reflective thinking skills and all sub-dimensions of emotional intelligence emerges at positive extent, the degree of positive direction or relation cannot go beyond the moderate level. Furthermore, the results converge on the view that there is a significant relation between emotional intelligence and reflective thinking skills. The most significant relation between reflective thinking skills and sub-dimensions of emotional intelligence is assigned to "social skills" sub-dimension with the coefficient of .63 by the analysis. The coefficient between reflective thinking skills organizing and managing emotions is .59, that is .58 between reflective thinking skills and self-motivation, .55 between self-conscious and reflective thinking skills and .52 is seen between reflective thinking skills and empathy.

4. Discussion

It has been found out that emotional intelligence level perception of class teachers falls at the level of "Often". While perceptions about "control of emotions" and "self-consciousness" held by class teachers are seen at the level of "Always", the perceptions about "empathy", "self-motivation" and "social skills" are found at the level of "Often".

However, some of the class teachers have reported that they are not successful at using some sub-dimensions of emotional intelligence.

The study has found no significant relation between emotional intelligence perceptions and sex variable. Acar (2002) and Girgin (2009) have also stated that no significant relation exists between emotional intelligence perceptions and sex variable. Dincyurek (2004) has carried out a study on university students and the conclusion has suggested no significant relation between empathy skills and sex variable and that suggestion seems to be compatible with other research implying the similar suggestion. However, the sub-dimension of “self-motivation” is reported to suggest a significant difference between male teachers and female teachers in favour of male teachers. Studying the relation between sex variable and emotional intelligence skills in the context of university students, Ergin (2000) has found out that male teachers exhibit higher levels of “self-motivation” and “organizing and managing emotions” and female teachers show higher levels of “empathy”. That study conducted by Ergin indicates suggestion which is compatible with our study reporting that male teachers have higher levels of “motivating the emotions” than female teachers. To have a look at other studies which are compatible with our study, Titrek, Bayrakci and Zafer (2009) have suggested that male school administrators have revealed more positive attitudes towards “organizing and managing emotions” than those female ones. Ahmad, Bangashkhan and Khan (2009) have found out that males are interpreted to have higher levels of emotional intelligence quotient than females.

The mere significant difference has been revealed out between emotional intelligence and professional seniority. Regarding the sub-dimensions of emotional intelligence, professional seniority variable has significant effects on the “organizing and managing emotions” and “self-motivation”. The research carried out by Koroglu (2006) has suggested that teachers with professional seniority of 21 years or over have been viewed to get higher points at sub-dimensions of self-consciousness and self-motivation than those with professional seniority of 1-10 years, the former group teachers are also reported to be placed at higher levels of self-motivation than those with professional seniority of 1-10 years and 11-20 years. Teachers with professional seniority of 21 and over years also report that psychological counselors seem to have higher levels of emotional intelligence than themselves. Moreover, teachers at the age of 41 or older are suggested to have higher levels of perception about emotional intelligence than those at the age of 23-30 and 31-40. The findings of our study also agree with those of study held by Koroglu. To Stein, one can reach at emotional sufficiency as long as he or she undergoes more experiences year by year (Stein and Book, 2003) .

To mention the contradictory studies with our research, Yerli (2009) has found out that higher length of professional seniority suggests a fall in the characteristics of emotional intelligence. People with professional seniority of 1-5 years have been considered to have significantly higher levels of emotional intelligence than those with professional seniority of 11-21 years and over. Titrek et al, (2009) has administered a study to the school administrators and teachers and they suggest that there exists a significant difference among the people with professional seniority of 1-5 years, 16 years and above and 6-15 years regarding the effects of professional seniority on emotional intelligence. Those school administrators who are beginners in their occupation are seen to be more competent at “organizing and managing emotions” than those with longer years of professional seniority, those beginner school administrators are also considered to have more developed competency at “organizing and managing emotions” by teachers with the professional seniority of moderate time length..

The variables of number of students and educational backgrounds do not have significant roles on the emotional intelligence and sub-dimension perceptions of class teachers. The studies held by Celik and Cagdas (2010) also reveal compatibility with our study. They have studied the effects of number of students on the empathic trends of pre-school teachers and it has suggested no significant difference. Among pre-school teachers, those who have 21-15 students are reported to have the highest point average while pre-school teachers whose classes include 11-15 students are implicated to show the lowest point average.

Reflective thinking skill perceptions of class teachers are found at the level of “Always”. Yorulmaz (2006) has conducted a study and it is indicated that class teachers report that they have fulfilled reflective thinking skills like learning how to think, teaching how to think and improving how to think at the level of “excessive”. The study conducted by Sahin (2011) has revealed out that candidates of Teachers of Turkish have shown tendency of “Completely Agree” towards reflective thinking skills.

According to the other findings obtained the study, no significant difference is found out between reflective thinking skills perceptions of class teachers and variables like *sex, educational background, professional seniority* and *number of students*.

The research conducted by Dolapcioglu (2007), Alp (2007) and Sahin (2011), Erguven (2011) all indicate that sex variable exhibits slight effects on the reflective thinking skills of class teachers, meaning to the absence of significant difference. It has also been found out that no significant relation emerges between the professional seniority and reflective thinking skills perceptions of class teachers (Dolapcioglu, 2007; Erguven, 2011). Semerci and Meral (2009) administered a test scale focusing on the reflective thinking skill trends of teachers of English keeping the professional seniority as variable and no significant difference has been revealed out between sub-dimensions of “sincerity, inquisitiveness, point of view on occupation, scientificity, responsibility of teaching, being visionary and open-mindedness”, “Questioning and effective education” and professional seniority. On the contrary, a significant difference has been revealed between professional seniority and sub-dimension of “Continuous and Intentional thinking”.

Having taken a look at the contrary studies, Alp (2007) has conducted a study and suggested that teachers with professional seniority of 21 and over years are seen as more positive than those with professional seniority of 11-20 years. It is stated that significant difference between professional seniority and practice of reflective thinking skills is attributed to the lack of training in the field of practice reflective thinking skills in teaching and learning of beginner teachers. To Demiralp (2010), teachers with longer professional seniority are suggested to keep more positive attitudes towards the practice and development of reflective thinking skills by pupils in primary school programs than teachers with shorter length of professional seniority. Sahin (2011) has carried out a study to determine the development of reflective thinking skills of candidate teachers and it is revealed out that tendency including the practice and attitudes toward reflective thinking is shaped according the education they receive.

Dolapcioglu (2007), Alp (2007) and Aslan (2009) have all come to the suggestion that different educational backgrounds do not pose significant relation with reflective thinking skills according the responses by teachers to whom scale of reflective thinking is administered. On the other hand, teachers who are graduates from Faculty of Arts and Science are found out to have more frequent use of reflective thinking skills than those from other faculties (Erguven, 2011). The study held by Erguven (2011) diverges from our study in this sense. Demiralp (2010) has carried out a study to determine the relation between number of students and attitudes of teachers towards the effects / contributions of primary school programs on the development of reflective thinking skills and findings of this study (Demiralp, 2010) have yielded considerable conclusions. Teachers who teach in the classes with 5-14 pupils have more frequently reported that primary school programs foster the class atmosphere equipped with pupil cooperation than teachers whose classes include students with numbers of 15-24, 25-34 and 35-44.

Our study has suggested a positive and significant correlation between levels of emotional intelligence and reflective thinking skills. The predictive power / regression strength effect of level of emotional intelligence on the reflective thinking skills has appeared as 53 %. A moderately positive relation between reflective thinking skills and five sub-dimensions of emotional intelligence (self-consciousness, organizing and managing emotions, self- motivation and social skills) can be argued in this sense. The utmost significant relation between reflective thinking skills and sub-dimensions of emotional intelligence is assigned to the “social skills” sub-dimension. Social skills are followed by organizing and managing emotions, self-motivation, self consciousness, and empathy sub-dimensions respectively. According to the study conducted by Bender (2006), a significant and positive relation exists between the all emotional intelligence characteristics and creative thinking skills of students. Basing on perceptions of class teachers Tikir (2005) has found out a positive relation at high rate between emotional intelligences and educational leadership behaviours of school managers. The research carried out by İsmen (2001) and Guler (2006) has suggested a positive relation between emotional intelligence and problem solving. Additionally, Semerci and Meral (2006; 2009) has administered a study with the aim of analyzing the critical and reflective thinking skills of teachers of English practicing the new foreign language teaching program in primary schools and suggested a significant relation but at a lower degree. Moon (2009) has stated that there is a relation between emotions and reflective thinking skills but the content of such relation needs to be clarified further. Emotions are treated to reflect one’s self identity and emotions are also viewed as one of the components of reflective thinking (Clinefelter, 2010: 69).

In order that training teachers practising emotional intelligence and reflective thinking skills efficiently, teacher candidates in education faculties are expected to be trained with these skills and those people should be convinced of the importance of administering activities which develop the reflective thinking skills of students. There can be separate courses of “Thinking Skills” and “Emotional Intelligence” focusing on these fields in education faculties by arrangements of faculty instructors so that teacher candidates will be permanently equipped with such skills. During the training activities of teacher trainees it is essential that trainers should observe the trainees and give immediate feedback and this can accelerate the development of reflective thinking skills. With the aim of combining theory and practice, some activities like micro-teaching, keeping journals, development portfolios, preparing lesson plans, purposeful debates, and action questionings can be included in the course programs by education faculty instructors. The behaviors and skills acquired at childhood years are more consistent and long lasting. Henceforth, specific classroom activities which focus on reflective thinking skills and emotional intelligence should be started in early years of primary school. Therefore, class teachers are supposed to put the activities based on emotional intelligence and reflective thinking skills into practice more frequently. In-Service training seminars of emotional intelligence can be organized for teachers, administrators of primary and middle school periods, who are creative, productive and enthusiastic, aware of their emotional intelligence, can organize emotions. In-Service seminars of reflective thinking skills can be presented to teachers, administrators of primary and middle school periods, who evaluate and question own teaching activities, conduct studies and propose solutions.

As for the limitations of this study, the subjects are all composed of class teachers in public primary schools. Similar research can be carried out in middle schools and private primary schools. The sub-dimensions are accepted as sex, professional seniority, educational background, the number of the students of class teachers in the study. The age, marital status and number of children can also be explored. The study can also be administered to branch teachers and school administrators without confining to the class teachers. The relation between emotional intelligence and reflective thinking skills of branch teachers and school administrators rather than merely dealing with class teachers can also be studied. Finally, each sub-dimension of emotional intelligence can be separately studied as individual research topics to analyze in more effective ways. Furthermore, qualitative studies which base on observation and face-to-face interviews can be incorporated in order that relation between reflective thinking skills and emotional intelligence can be analyzed more efficiently.

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