

## **Social Intelligence in the Context of Personality Traits of Teachers<sup>1</sup>**

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### **Abstract**

*Social intelligence as a personality trait as well as a performance characteristic may be regarded as an important social competence of a teaching profession and a significant predictor of successfulness of a teacher in their profession. This report focused on an analysis of the interconnections amongst social intelligence and the essential personality traits of teachers. The results of the presented research, which were gained by means of the sample of 552 teachers, confirmed that the social intelligence factors are connected to the personality traits of these teachers. The findings also enabled specification of the differences in the responses of the male and female teachers. From the methodological point of view the results of the presented research contributed to the verification of the basic parameters of the evolving SIPS methodology for detecting social intelligence as a personality trait.*

**Key words:** social intelligence, personality, teacher

### **1. Social intelligence**

From the viewpoint of the problem of social intelligence, to which the attention has been paid for almost a hundred years, a very significant contribution was provided by Thorndike (1920) according to whom it is possible to define several factors within the structure of intelligence, each of which represents a certain detailed ability. Ruisel (2008) claims that contrarily to Stern and Spearman, Thorndike rejected the concept of intelligence as a single general ability and he defined three sets of these abilities:

1. Abstract intelligence, as an ability to understand and manipulate with the verbal and mathematical symbols.
2. Social intelligence, as an ability to understand people and cooperate with them.
3. Concrete intelligence, as an ability based on the manipulation with objects.

Similarly to Thorndike (1920), social intelligence is defined by Marlowe (1986), who regards it as an ability to understand other people and social interactions, and apply this knowledge in leading and influencing other people for their mutual satisfaction. He starts from the two-factor concept of social intelligence, highlighting the mutual satisfaction, benefit, and thus the pro-social aspect of social intelligence. However, the generally accepted definition of social intelligence and therefore also confirmation of validity of existence of this area of knowledge meets various problems (Silvera, Martinussen & Dahl, 2001). Conceptualization and the subsequent operationalization of social intelligence draws the attention of authors to at least four sets of issues (Frankovský & Birknerová, 2012):

1. Social intelligence and the related areas of knowledge.
2. Structure of social intelligence.
3. Personality and psychometric concept of social intelligence.
4. Ethical concept of social intelligence.

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The definition of the construct of social intelligence is closely interconnected with the issue of the structure of social intelligence. This structure itself, as it was already mentioned, is one of the essential issues to which the attention is paid within the studies of this problem. Several authors define the social intelligence structure inductively on the basis of the results of a factor analysis. These approaches are included in the studies of Schneider, Ackerman and Kanfer (1996). A group of examined persons assessed the degree to which the individual ways of behavior characterized their typical behavior in social situations. The factor analysis extracted seven factors of social intelligence: extraversion, heartiness, social influence, social insight, social perceptiveness, social adequacy, and social adjustment.

In a similar way the structure of social intelligence in case of the TSIS methodology (The Tromso Social Intelligence Scale by Silvera, Martinussen & Dahl, 2001) had been specified. On the basis of a factor analysis three factors were extracted and defined as follows: social information processing, social skills, and social awareness. The authors use Cronbach's alpha values as indicators of reliability of the individual subscales as follows: SP – 0.79, SS – 0.85, SA – 0.72 (Silvera, Martinussen & Dahl, 2001). The TSIS questionnaire represents not only the dispositional approach to studying social intelligence, but also a methodology, which detects social intelligence as a performance characteristic.

Similarly, the SIPS methodology – Solution of Interpersonal Problem-oriented Situations by Baumgartner and Frankovský (2004) had been proposed and developed on the basis of the results of a factor analysis. In accordance with this method, the authors extracted four factors of the social intelligence structure: Behavioral solution in the future, Behavioral solution in the present, Cognitive processing, and Emotional release. The presented methodology differs from TSIS in that it represents the situational approach to studying social intelligence as a personality trait.

## **2. Personality of a teacher**

Personality of a teacher plays an important role within the process of education and training. It is a base for the positive influence on pupils and students (Hrbáčková, Hladík, Vávrová & Švec, 2011). This positive influence is a reflection of the authority of the teacher determined by their expertise, pedagogical preconditions, social acceptance, character and moral qualities.

The teacher's personal example and their personality charm are irreplaceable. Their influence, impact and communication cannot be replaced by quality textbooks or learning aids, ethical norms or elaborated tests, restrictions or punishments (Kohoutek, 2002). The significance of a teacher's personality is highlighted also by Kačáni (2004), who took into consideration the definitions of the areas important from the viewpoint of influence of the educational process on the personality of a student and accentuated the following:

- personality traits of the student from the viewpoint of successfulness in school,
- formative processes which determine internalization of the external influences,
- personality of the teacher, their positive, desirable and unfavorable qualities, which partake in the formation of the personality of the student,
- relationships between the teacher and the student as a basis for educational treatment,
- personality of the teacher as one of the significant factors of this influence.

According to Drlíková (1992), personality is a starting point, a precondition and an aim of the educational and training process, therefore it is necessary to pay attention to the education of a multilaterally and harmoniously developed personality of a teacher. A teacher's personality developed in such way is a basis for the creation of effective relationships between teachers and students, which are, according to Petty (2004) based on the mutual respect. A well-developed personality of a teacher is a starting point for the ability to respect the individuality of each student and appreciate their study efforts.

Significance and importance of the teacher's personality within the process of education and training is emphasized by Zelina (1996) who claims that the teacher affects their surroundings primarily by their personality. In accordance with Čáp and Mareš (2001), the overall personality of a teacher, their character and all moral aspects their personality develop throughout their life. Development and formation of these aspects of the teacher's personality run as complex processes of socialization, interaction with the environment, internal changes and auto-regulation also in the educational and training process.

### **3. Research**

The objective of this research was to characterize the position of social intelligence within the context of the selected personality traits of teachers. The attention was focused primarily on the dispositional personality traits of a teacher where the trans-situational interaction was expected.

#### **3.1 Research hypotheses**

Hypothesis 1: We assume statistically significant correlations between the personality traits and the social intelligence factors among teachers.

Hypothesis 2: We assume statistically significant differences between the male and female teachers in evaluating the selected social intelligence factors.

#### **3.2 Research methodology**

Collection of the empirical data for the research was carried out by means of three methodologies. The Big Five methodology was used to detect the essential personality traits of the male and female teachers. Two other methodologies, TSIS and SIPS, were aimed to measure their social intelligence.

##### **3.2.1 NEO FFI – Big Five personality inventory**

The most wide-spread method identifying five general personality factors are the NEO Personality Inventories (NEO-PI, NEO-PI-R, NEO-FFI) which had been under development since 1970s by Costa and McCrae (1992). In this research its Slovak version (Ruisel & Halama, 2007) was used. The methodology consists of 60 items divided into five dimensions (Neuroticism, Extraversion, Openness to experience, Agreeableness, Conscientiousness), each of which is filled with 12 items evaluated on a 5-point scale (0 – strongly disagree, 4 – strongly agree).

According to the five-factor theory, personality features belong to the biologically given “basal tendencies”. A concrete manifestation of basal tendencies is the “adaptation characteristics” (the result of an interaction between an individual and the environment, they are culturally conditioned), which also include social skills, self-perception, strategies, styles, attitudes, and the like (Hřebíčková & Urbánek, 2001).

##### **3.2.2 The TSIS methodology – The Tromso Social Intelligence Scale**

One of the two methodologies used to detect social intelligence is TSIS (Tromso Social Intelligence Scale) by Silvera, Martinussen and Dahl (2001). This questionnaire, which consists of 21 items, represents a dispositional approach to detection and measurement of social intelligence. Each of the 21 items is evaluated on a 7-point scale in which 1 means “describes me extremely poorly” and 7 means “describes me extremely well”. By means of a factor analysis, three factors had been specified within the TSIS methodology: SP – social information processing, SS – social skills, and SA – social awareness. In the research conducted in Slovakia (Vasil'ová & Baumgartner, 2005), the Cronbach's alpha values for the individual subscales were as follows: SP – 0.82, SS – 0.74, SA – 0.74. Frankovský and Birknerová (2012), however, provide the following values: SP – 0.77, SS – 0.75 and SA – 0.69. The TSIS questionnaire not only represents a dispositional approach to studying social intelligence, but it is also a methodology which detects social intelligence as a performance characteristic.

##### **3.2.3 The SIPS methodology – Solution of Interpersonal Problem-oriented Situations**

Contrarily to TSIS, this questionnaire created by Baumgartner and Frankovský (2004) is based on applying the situational approach. When creating SIPS, the behavioral aspect in a particularly defined and described situation was accentuated. The SIPS questionnaire may be, from the methodological point of view and, again, contrarily to TSIS, regarded as an approach to detect social intelligence as a personality trait. The respondents are presented in writing a concrete social situation as well as 18 forms of possible behavior in such situation. The respondents evaluate them in terms of acceptance or rejection on a 6-point scale of the interval type (definitely yes, yes, rather yes than no, rather no than yes, no, definitely no). The methodology enables specification of a three-component structure of social intelligence within which a behavioral, social-emotional, and cognitive component may be defined. The behavioral component enables characterization of two individual factors, which differ in time orientation at the current behavior or the behavior in the future: F1 – *Behavioral solution in the future*, F2 – *Behavioral solution in the present*, F3 – *Cognitive processing*, F4 – *Emotional release*.

### 3.3 Research sample

The collection of empirical data was carried out by means of the research sample of 552 elementary school teachers, 455 of which were women and 97 were men. The average age of the teachers was 35.15 years (the minimum age was 22, the maximum was 60), and the standard deviation of the age of the teachers was 7.158 years.

### 3.4 Interpretation of the research results

***Interconnections between social intelligence and personality traits:*** these were verified by means of Hypothesis 1: We assume statistically significant correlations between the personality traits and the social intelligence factors among teachers.

The significance of a teacher's personality is unquestionable in the process of education and training. The personality of a teacher is represented by a colorful mosaic of personality traits which are necessary from the viewpoint of effective influence of the teacher on the students. The presented research brought focus on the five essential personality characteristics of a teacher's personality as defined by the Big Five model. Analyses of the interconnections between these personality characteristics and social intelligence were carried out by means of the TSIS and SIPS questionnaire and the results of the statistically significant correlations are illustrated in Table 1, which presents the values of Pearson's correlation coefficient and the statistical significances detected by means of the SPSS program for statistics.

The gained results of the correlation analysis confirmed several statistically significant correlations between the personality traits and the social intelligence indicators (Table 1). The higher degree of Neuroticism of teachers correlates with the lower degree of Social skills and Social perceptiveness, and at the same time it correlates with the negative reaction in the future and also the negative reaction in the present. The higher score of Extraversion clearly correlates with the higher degree of Social information processing, Social skills, and Social perceptiveness. Openness is connected to the higher level of Social information processing but also to the Emotional release, usually when meeting acquaintances. Agreeableness is connected to the higher degree of Social perceptiveness and rejection of the negative reaction in the future. The higher score of Conscientiousness correlates with the higher level of Social information processing, Social skills, and Social perceptiveness. The presented findings confirmed the fact that social intelligence negatively correlates primarily with the higher degree of Neuroticism. For this reason it is necessary to point out that Neuroticism and the related forms of behavior are not effective in the relationship between the teacher and the student. If it is assumed that social intelligence contributes to the increasing of this effectiveness, then Neuroticism significantly decreases it. On the basis of the given results it may be claimed that **Hypothesis 1** was **confirmed**.

***Differences in evaluating social intelligence between the male and female teachers*** were verified by means of Hypothesis 2: We assume statistically significant differences between the male and female teachers in evaluating the selected social intelligence factors. Studying gender differences is one of the essential and typical areas of research in social sciences. Stoller (1968) is regarded as one of the first authors who used the term "gender" and in this connection proposed to differentiate between this term and the biological characteristics and start to use it as a label of social-cultural attributes. Gender, in this context, may be part of every social research. In the present era, gender issues are in the center of attention of various areas of social life. The studies include, besides the issues of gender equality, also the issues of gender differences or the questions of in what and why have men and women different opinions on the selected problems. Studying gender differences therefore became one of the important areas of research in psychology, sociology, politics and other primarily social scientific disciplines.

The presented results confirm the existence of the statistically significant differences between the answers of men and women in assessing the selected social intelligence factors (Table 2, Graph 1, Graph 2). Statistically significant differences between the female and male teachers were detected in assessing two social intelligence factors as a personality trait (SIPS). In particular, they were the factors of Cognitive processing and Emotional release. In both factors higher scores were achieved by the female teachers. It means that these forms of behavior were preferred more by the men, who scored lower, which means that the male teachers think more about whether they have hurt somebody or what could have possibly happened and in this sense they gain more information from their acquaintances than the female teachers. Men also tend not to react to the situation immediately but they talk about it with their friends or complain to their acquaintances.

On the basis of the given results it may be claimed that **Hypothesis 2** was **confirmed**.

#### 4. Discussion and conclusion

Personality of a teacher in contemporary society plays a decisive role (Balvín, 2012) despite the fact that there are many various new forms of education and training. The position and significance of the teacher's personality is indisputable within the educational process. The discussion about social intelligence (Sternberg & Detterman, 1986), its definition, differentiation from other related notions, and its meaningfulness are related also to the area of education and training (Birknerová & Frankovský, 2010).

The main objective of this report was to analyze the interconnections between social intelligence and the essential personality traits of teachers and on this basis to characterize the position of social intelligence within the context of personality traits of teachers. The results of the presented research confirmed that the factors of social intelligence are connected to the personality characteristics of teachers. It was claimed that Neuroticism lowers the level of social intelligence, particularly in the factors of Social skills and Social perceptiveness. Contrarily, social intelligence correlates positively with Extraversion, Openness, Conscientiousness, and Agreeableness. Simultaneously, these are the personality qualities which are welcome and desired among teachers.

Differences from the viewpoint of gender between the male and female teachers were also detected only in relation to the Cognitive processing and Emotional release. As these forms of behavior were preferred more by the male teachers, the given differences correspond with the general findings about the differences between men and women. The requirements of a situation and the personality aspects determine the goals in order to reach which the individuals may use their social intelligence (Kaukiainen et al., 1995). Social intelligence as a personality trait as well as a performance characteristic may be regarded as an important social competence of the teaching profession and also as a significant predictor of successfulness of a teacher in their occupation.

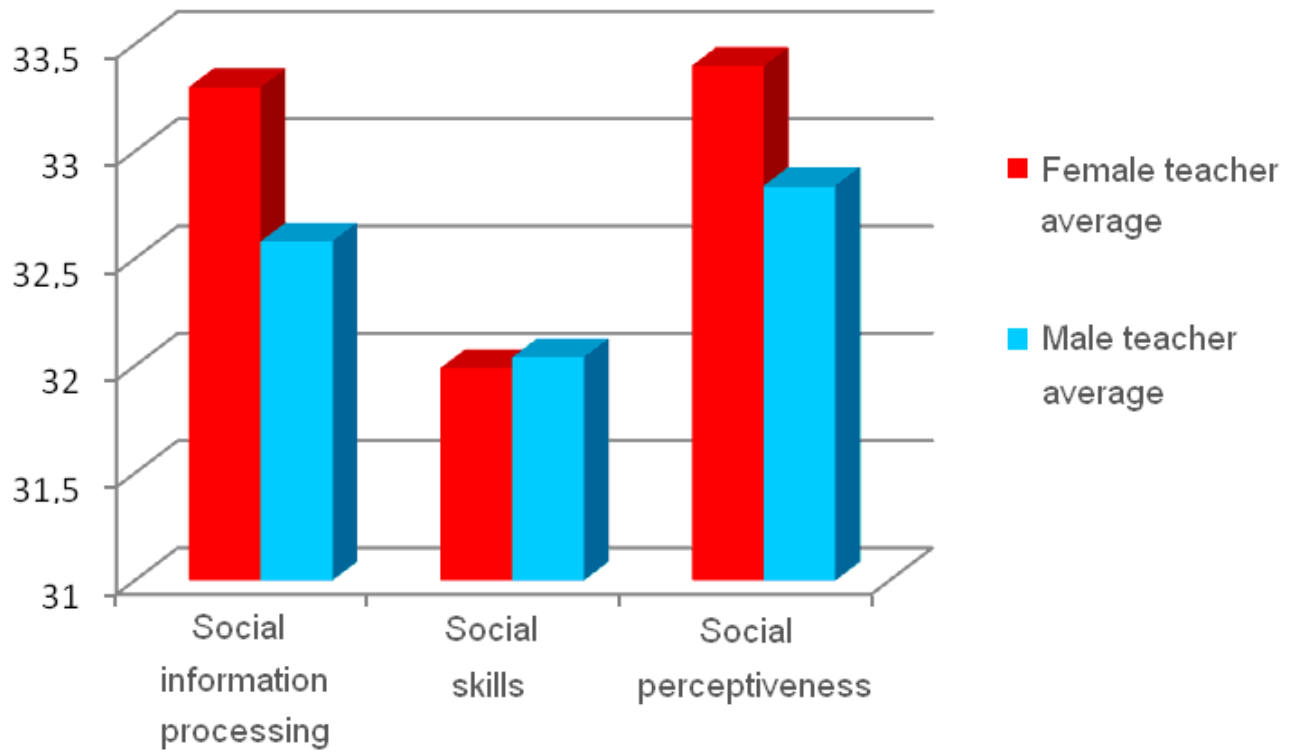
**Table 1: Interconnections between social intelligence and the personality traits of teachers**

Factors	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness
Social information processing	-.065	.112(**)	.145(**)	-.025	.143(**)
	.136	.010	.001	.575	.001
Social skills	-.386(**)	.500(**)	.012	.054	.230(**)
	.000	.000	.791	.216	.000
Social perceptiveness	-.279(**)	.135(**)	.075	.272(**)	.136(**)
	.000	.002	.091	.000	.002
Behavioral solution in the future	-.132(**)	.050	.065	.146(**)	.072
	.002	.243	.130	.001	.093
Behavioral solution in the present	.148(**)	-.069	.007	-.036	-.062
	.001	.109	.866	.413	.153
Cognitive processing	-.049	-.037	-.060	-.067	-.064
	.259	.391	.168	.125	.140
Emotional release	-.056	-.035	.092(*)	.010	-.006
	.199	.416	.033	.825	.893

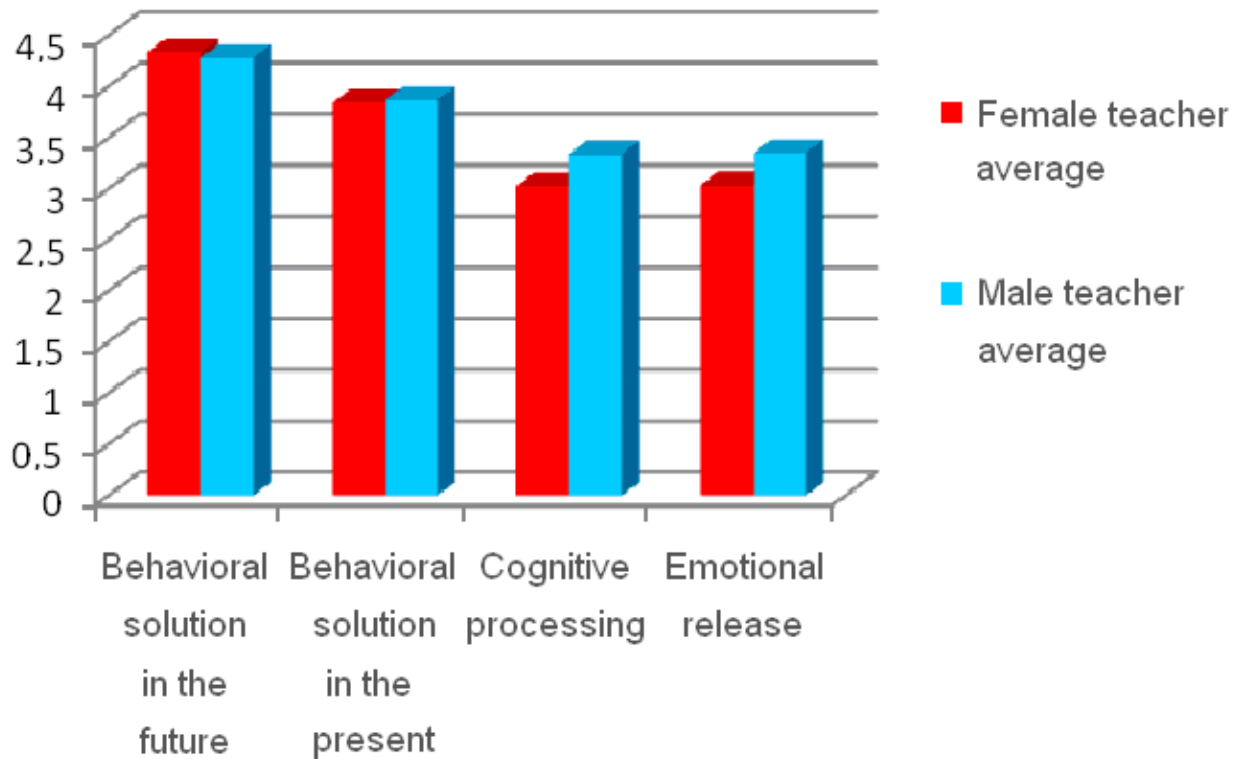
**Table 2: Evaluation of social intelligence by the male and female teachers**

Social intelligence	Female teachers mean	Male teachers mean	T - test	Sig.
Social information processing	33.30	32.58	-1.106	.269
Social skills	31.99	32.04	.073	.942
Social perceptiveness	33.40	32.84	-.837	.403
Behavioral solution in the future	4.34	4.28	-.604	.546
Behavioral solution in the present	3.84	3.87	.215	.829
Cognitive processing	3.03	3.34	2.817	<b>.005</b>
Emotional release	3.04	3.35	2.935	<b>.003</b>

**Graph 1: Evaluation of social intelligence of TSIS by the male and female teachers**



**Graph 2: Evaluation of social intelligence of SIPS by the male and female teachers**



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