

The Significance of Preschool Teacher's Personality in Early Childhood Education: Analysis of Eysenck's and Big Five Dimensions of Personality

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Abstract Considering the significance of the preschool teacher's influence on early childhood, it is relevant to put in the research focus their personality characteristics. Therefore, the main question of this study was to explore personality traits of preschool teachers. A personality analysis was run and discussed within two personality models: Eysenck's and Big Five personality model. Subjects were preschool teachers (N=92), all females, with the mean age of 30 years, ranged from 21 to 49 years. Personality traits analyses within both personality models showed higher levels of extraversion, agreeableness, conscientiousness, openness to experience and social conformity than normative sample. Psychoticism level was similar to the one from normative sample, and neuroticism levels (Eysenck's and Big5) were lower than in normative sample. The results were discussed in the frame of the significance of preschool teacher personality as a role models and (none)desirable personality traits in the context of early and preschool care and education.

Keywords Eysenck's Personality Dimensions, Big Five Model, Preschool Teachers

1. Introduction

„It is through others
That we develop into ourselves“
(L. S. Vygotsky, 1981, p. 161)

Most adults are able to remember their earliest childhood and their "favourite preschool teacher": the one who made us welcome, who dried our tears, comforted us when we had bruised and taught us our first understanding of right and wrong. Besides, we could clearly recall that we had a strong emotional bond with that significant other (Bauer, 2008), or in what way that exact person influenced on us. Similarly, every preschool teacher has her/his own professional motivation and kind of personality that enable them to pursue the primary goal of satisfying children's' needs. One of them could be seen in one part of Ana's interview, who is well-respected, experienced early childhood educator, working more than 30 years with children as Portuguese kindergarten teacher:

"...One of the things I treasure is that children feel accepted, as they are more specifically those children who have been emotionally or socially and economically deprived... What I want a child to learn is that she can be herself and

should leave the early childhood classroom [experience] with an inner strength. This inner strength is built day after day... In kindergarten, all children should have an opportunity." (Vasconcelos, 2002, p. 192).

The experiences of preschool teachers and children makes us wonder what kind of personality does preschool teacher need to have to make such positive influence on the child? Even more, if we want to describe typical preschool teacher's personality within the modern personality theories, what that description would be? What kind of personality traits would have a typical preschool teacher, or the most(least) liking one? Unfortunately, there is limited research about what makes a good preschool teacher (Ayers, 1989; Yonemura, 1986). Since the process of early learning and teaching is far more complex, it is crucial to analyse preschool teacher's personality traits, which definitely play a significant role in that same process. The preschool teacher-child interaction and whole climate of kindergarten group directly depend upon preschool teachers' personality. His/her personality influences on his/her sensitivity to the preschooler's personality that is in its formative stages. This is very important because pre-schoolers will only learn when they are in a trusting environment (Bauer, 2008). Besides, recent studies have demonstrated that teaching is not merely a cognitive or technical procedure but a complex, personal, social, often elusive, set of embedded processes and practices that concern the whole person (Hamachek, 1999; Oakes & Lipton, 2003; Britzman, 2003; Cochran-Smith, 2005; Olsen, 2008b).

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Published online at <http://journal.sapub.org/ijpbs>

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Generally, personality could be defined as a cluster of traits that determine individual-specific responses to the environment (Musek, 1999) and make human behaviour and experiencing more consistent (John & Srivastava, 1999). Personality has been conceptualized from a variety of theoretical perspectives (John, Hampson, & Goldberg, 1991; McAdams, 1995). Each of these personality models has made unique contributions to our understanding of individual differences in behaviour and experience (John & Srivastava, 1999), and tried to embrace as wide a range of human behavioural patterns as possible by its limited system of assumptions or constructs (Buško, 1990). Two personality models are dominant and concurrent paradigms in personality research: the Eysenck's PEN (Eysenck, 1967) and the Big Five model (Goldberg, 1999).

1.1. Eysenck's personality theory

Even though Eysenck's personality theory had its peak dominance in seventies and eighties in previous century, it still has been intriguing in the field of personality psychology. It (Eysenck, 1947, 1967) has its roots in rigorous empirical results from factor analyses of various personality traits' indicators and measure instruments. Eysenck's theory is based on the physiological findings from Pavlov's research of classical conditioning, and on the concepts of excitation-inhibition and arousal hypotheses. According to that, he claimed that personality traits (as measured by questionnaires such as the EPQ) actually reflect individual differences in the ways that peoples' nervous systems operate. The greatest contribution of Eysenck's theory is in the possibility of detecting genetic factors and of determining the universality and stability of personality dimensions (Milas, 2004). Consequently, Eysenck (1967) has identified three main personality dimensions and the influence of the nervous system and the brain on these dimensions: stability/instability (neuroticism), introversion/extraversion and psychoticism. Emotionally unstable personality is moody, anxious, tense, depressive, restless and touchy; a stable personality is reliable, calm, even-tempered, carefree and has leadership qualities. An introverted personality is quiet, unsociable, passive and careful; an extroverted personality is talkative, lively, active, optimistic, sociable and outgoing. Psychoticism is described by characteristics such as aggressive, more ruthless, egocentric, insensitive, antisocial, impulsive and tough-minded.

1.2. Five Factor model of personality

It seems that researchers, who tried to solve the problem of lack of paradigm in personality psychology, which consequently resulted with too much personality theories, have succeeded. Therefore, the discovery of five basic dimensions of personality called Big Five (Goldberg, 1999) is considered as the one of the most important events in 20th century in personality psychology (Mlačić, 2002). The Big Five model is substantially descriptive, with the emphasis on the taxonomic aspect (MacDonald, Bore, & Munro, 2008). It is

based on Galton's lexical hypothesis (1884) which presumed that the most important individual differences in human transactions would be noted as separate words in some or all world languages (Goldberg, 1982). In other words, it was supposed that psychological and social realities were adequately reflected through the language, and "*structure of personality traits is placed in the structure of everyday language*" (Kardum & Smojver, 1993, p. 91). According to that theory, personality can be described by means of five factors: extraversion, agreeableness, conscientiousness, emotional stability and intellect/openness to experience (Pervin & John, 1997). Individuals scoring high on extraversion have high quantity and intensity of interpersonal interactions, are very active and dominant, have positive emotionality, and are sociable, talkative and affectionate. Opposite to them, persons low on that dimension are described as unsociable, quiet, reserved, unexuberant, balanced, serious, aloof, and task-oriented. Highly agreeable individuals are soft-hearted, of a good nature, trusting, helping, forgiving, open persons, straightforward, honest, whereas those on the opposite pole of the dimension are seen as ruthless, suspicious, cynical, mocking, rude, irritable, vengeful, uncooperative, and manipulative. Furthermore, individuals scoring high on conscientiousness are known as self-disciplined, organized, reliable, assured, punctual, scrupulous, ambitious, committed, persevering, neat, polite and considerate. Opposite to them are persons who are unreliable, lazy, careless, negligent, imprudent, inconsiderate, indifferent, weak-willed, inert, hedonistic, aimless, and with no aspirations. Individuals highly positioned on neuroticism exemplify as unreliable, inadequate, worrying, nervous, irritable, easy jumping, insecure and frequently hypochondriacally. Low positioned individuals are calm, relaxed, hardy, secure, and self-satisfied. Finally, persons scoring high on intellect/openness to experience are described as intelligent, creative, operational, imaginative, adventurous, curious, of broad interests, and non-conventional. On the contrary, those scoring low are not curious, not interested to explore, traditional, down-to-earth, narrow-hearted, limited and inartistic (Pervin & John, 1997).

1.3. Preschool teacher's personality in the light of Eysenck's and Big Five dimensions of personality

A certain number of studies demonstrated that extraversion and emotional stability from Big Five model are congruent to extraversion and neuroticism from the Eysenck's model (Mlačić & Knezović, 1997). Moreover, agreeableness and conscientiousness present an opposite end of the psychoticism, and they are moderately to highly correlate with each other (Mlačić i Knezović, 1997). Likewise, if we exclude the intelligence, intellect/openness to experience does not have its synonymous pair in Eysenck's model. At this moment, Big Five model presents the most integrative frame from research in personality psychology (Mlačić i Knezović, 1997), so this was the main reason to use it in analysing the

preschool teacher's personality. Besides, strong empirical validation and great congruency of Eysenck's theory with Big Five model present very valid reasons to use this personality model in exploring preschool teacher's personality.

As it was mentioned earlier, there is a big lack of systematic and scientific exploration of preschool teacher's personality. The majority of studies explored the competencies that future preschool teachers should have (Vujičić, Čepić & Pejić Papak, 2010), what faces or roles could preschool teachers have (Slunjski, 2004, 2008) and what are the significant factors that influence their professional development (Vasconcelos, 2002, Ling, 2003). Within their research, authors used concepts such as reflective practitioner, competencies, enagramic approach in different faces/roles of preschool teachers, enthusiasm and personal fulfilment by work within the frame of qualitative methodology (mainly interviews with open and non-structured questions). Even though all studies very qualitatively dealt with the question what makes a good kindergarten teacher, none of them explores them in the context of modern personality theories using quantitative methodology approach. Besides, all of them have investigated and discussed about concepts that were determined by personality characteristics of preschool teachers – because the same competency and its same level could be very differently manifested in one introvert or one extravert, or in preschool teacher who was emotional stable or not. In addition, the only one set of similar studies is the one consisted of investigation of similar personality models but in the samples of schoolteachers (Kenney & Kenney, 1982; Keirse & Bates, 1984; Korthagen, 2004; Emmerich, Rock & Trapani, 2006; Zhang, 2007; Decker & Rimm-Kaufman, 2008). Again, as it would be discussed later, even though both professions work in the learning and teaching setting, they were rather different due to great number of factors. So, any attempt of using the same study conclusions that are valid for school teachers' personalities could not be valid for preschool teachers' personalities. Finally, some studies have been focused on certain personality characteristics of preschool teachers outside the specific personality theory frame, such as empathy or imagination. The results showed that children from groups led by more emphatic and more imaginative teachers were more prosocial, while the children from groups led by less emphatic and less imaginative educators were found to be more aggressive (Ivon & Sindik, 2008). In addition, the same study established that children led by more emphatic and imaginative teachers used more imaginative games, particularly the symbolic puppet play, and did practical activities in small groups or pairs. Taken altogether, it is obvious that various personality characteristics are more than significant in the preschool setting. So, they definitely deserve to be objectively and quantitatively analysed within previously described personality models.

1.4. The aim of this study

The goal of the present study was to examine personality

structure in preschool teachers within two dominant personality theories: Eysenck's personality theory and Big Five model of personality. Within Eysenck's personality theory it was supposed that extraversion would be higher and neuroticism would be lower than in normative sample concerning the preschool teacher's role in the preschool setting as an talkative and warmth individual with the emphasized emotional stability which is very important in the work with children. Within the Big Five model of personality it is expected that the dimensions of extraversion, agreeableness and openness to experience would be higher and neuroticism would be lower than in normative sample. Again, this hypothesis is made according to preschool teacher's role in preschool setting where the basic prerequisites of successful work with children and parents are higher levels in: sociability, warm-heartedness and activity; soft-heartedness, honesty and forgiveness; curiosity, creativity and imagination; emotional stability security and relaxation. Finally, it is expected to determine no significant correlations between age and any personality variables, concerning the age level of preschool teachers. Besides, it is expected to determine that preschool teachers with higher working experience would also have a higher level of consciousness, since this personality dimension is frequently closely connected with the growing work experience.

2. Method

2.1. Participants

In this study participated N=92 preschool teachers, all females with the mean age 30.5 years (SD=6.65), ranged from 21 to 49 years. The mean of their working experience was 6 years, ranged from 0 to 30 years of working within preschool care and education. All subjects were enrolled at the Life-long learning course for preschool teachers at the Faculty of Teacher Education. N=67 participants were enrolled at the year 2010 and N=25 were enrolled at the year 2011. The sample was suitable because all students were the preschool teachers with at least some working experience and from different parts of our country.

2.2. Measures

Eysenck's Personality Questionnaire – Revised (EPQ-R). To analyse personality structure in preschool teachers, two personality questionnaires have been applied. Eysenck's Personality Questionnaire – Revised version, EPQ-R (Eysenck, Eysenck & Barrett, 1985), its standardized version (Eysenck & Eysenck, 1994), to be precise, has been used to measure the levels of extraversion, neuroticism, psychoticism and social conformity. This instrument consisted of 106 items: Extraversion subscale = 23 items (item example: "Do you have many friends?"); Psychoticism subscale = 32 items (item example: "Do you enjoy to insult people who you love?"); Neuroticism subscale = 24 items (item example: "Have you often felt guilty?"); and Social conformity sub-

scale = 21 items (item example: “Have you ever damaged or lost others stuff?”) on which participants answered choosing between YES and NO. The level of a certain personality dimension resulted as a sum of answers on relevant EPQ-subscale. Item analysis in this study confirmed earlier satisfactory levels of reliability, as it could be seen in Table 1. Even though the reliability levels of psychoticism and social desirability are something lower than the ones from the normative study, they are still satisfying.

The Big Five Inventory (BFI). To measure five factor personality traits, BFI (Big Five Inventory, Benet-Martinez & John, 1998; John & Srivastava, 1999) has been used. It consists of 44 items that present short an easy-to understood phrases to assess the prototypical traits defining each of the Big Five dimensions. The Extraversion subscale measures specific traits as talkative, energetic, and assertive and has 8 items (“I see myself as someone who... is talkative”); the Agreeableness subscale measures traits like sympathetic, kind, and affectionate and has 9 items (“I see myself as someone who... is considerate and kind to almost everyone”); the Conscientiousness subscale measures traits like organized, thorough, and planful and has 9 items (“I see myself as someone who... is a reliable worker”); the Neuroticism subscale measures traits like tense, moody, and anxious and has 8 items (“I see myself as someone who... worries a lot”); and the Intellect/Openness to Experience subscale measures traits like having wide interests, and being imaginative and insightful and has 10 items (“I see myself as someone who... is inventive”). BFI items are rated on a Likert’s 5-point scale ranging from 1 = disagree strongly to 5 = agree strongly. Despite its shortness and simplicity, BFI has satisfactory psychometric characteristics (John, Naumann & Soto, 2008; John & Srivastava, 1999; Srivastava, John, Gosling & Potter, 2003; Kardum, Hudek-Knežević & Kola, 2005; Kardum, Gračanin & Hudek-Knežević, 2006, 2008) that have been confirmed in this study too, as shown in Table 1. Kardum and his colleagues (2005, 2006, 2008) have been adapted BFI to Croatian language field and confirmed its original factorial structure.

Table 1. Descriptives (averages (M), standard deviations (SD), result ranges (RR) and Cronbach Alpha (Alpha)) for four Eysenck’s personality traits and for five personality dimensions within Big5 model

Dimensions	PERSONALITY MODELS	
	Eysenck’s personality dimensions	Big5 personality dimensions
	Extraversion Neuroticism Psychoticism Social conformity	Extraversion Agreeableness Conscientiousness Neuroticism Intellect/Openness
M	16.2 8.16 6.06 9.12	30.77 36.53 35.3 18.42 41.03
SD	4.62 5.03 2.58 4	4.51 3.65 4.44 4.66 4.05
RR	3-23 1-27 0-13 0-18	19-40 26-44 22-45 8-31 32-49
Alpha	.84 .85 .53 .78	.83 .60 .76 .79 .78

2.3. Procedure

At the end of their enrolled Life-long course (for the first

generation in early spring 2010. and for the second generation in early spring 2011. year) students (N=92) were asked to participate in the study which analyse dominant personality characteristics of preschool teachers. Therefore, those students who accepted to participate filled out two described questionnaires. In addition, they were told that the research was anonymously and collected data privacy was guaranteed. Questionnaires application has been long for about 15 minutes and after that, the students were promised to be informed about the study results. SPSS has been used for performing needed statistical procedures: descriptive and correlation analyses.

3. Results and discussion

3.1. Eysenck’s personality dimensions in preschool teachers

Conducted statistical analyses showed (Table 1, Figure 1) a rather different averages in all subscale’s results, than we could observe in normative sample (Eysenck & Eysenck, 1994) of the same average age (30 years).

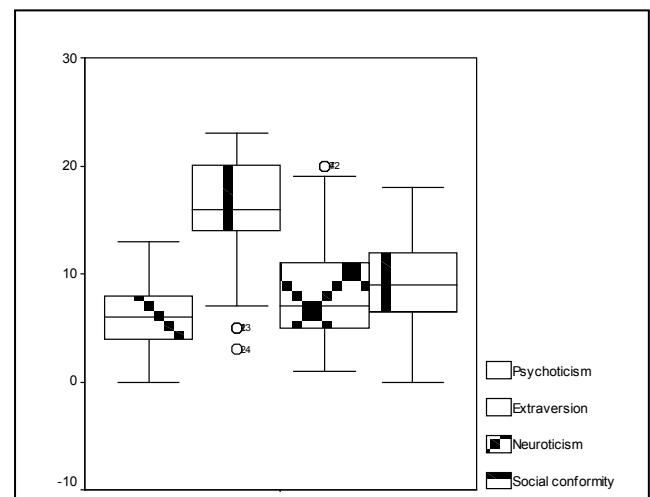


Figure 1. The distribution of four EPQ/R-subscale results: psychoticism, extraversion, neuroticism and social conformity

Therefore, it was determined that the levels of extraversion and social desirability of given answers were relatively higher than in normative sample (for extraversion M=14.17; for social desirability M=6.33). In other words, preschool teachers participated in this study estimate themselves more talkative, sociable and open to others than normative sample; and also they gave more social desirable answers in the questionnaire than the normative sample. Determined greater level for extraversion is expected to be found in this profession, since one of the major preschool teacher competencies is effective and clear communication and flexibility in their work with little children (Slunjski, 2004). Therefore, this competency implies extraverted personality, what has been confirmed in this study. Furthermore, the level of social conformity is higher than in normative sample, what could imply at two things: a greater need to present them in the

“better light” and a greater need to be conformist in their environment, i.e. within their interaction with children. There are two reasons to rely more on the second explanation. First, this result could not be ascribed to the higher level of social desirability determined in the same sample, because Eysenck & Eysenck (1994) emphasized that we could talk about dissimulation situation only if the higher and significant correlation between neuroticism and social desirability scales were found. Since, this is not the case in our study ($r=-.16$) as shown in Table 2, we could conclude that the level of social desirability and conformity is higher in preschool teachers since their professional role include a higher level of flexibility within their interaction with children. Therefore, the second explanation is more appropriate since it is in accordance with the preschool teacher's role within preschool setting. That role lies on the imperative to adequately answer to the children needs and adjust their behaviour to that needs. In addition, the preschool teacher's role includes everyday exposure to the children's observations of their behaviour, within which preschool teachers present a very significant role models in the children's lives. So, it is very well possible that preschool teachers behave and think in the social desirable way due to their awareness of their role as observation models, more than some other professionals.

Concerning the average result on psychoticism subscale, it could be seen that there is no difference in comparison with the normative sample ($M=6.20$). Finally, determined average level of neuroticism in this sample is significantly lower than the one in the normative sample ($M=12.53$). Since it was previously explained that the results could not be explained within the frame of dissimulation, due to determined low and non-significant correlation between neuroticism and social desirability levels, it is possible to explain this finding in the light of real and true personality characteristics of preschool teachers. Therefore, this study confirmed expected high level of emotional stability in preschool teachers that is in accordance with their role within early a preschool childhood care and education. Concerning the demands on preschool teacher's personality, it could be said that this personality trait is the one with a great priority. It is very important that a professional who works with preschool children are emotional stable, not easily reactive to the surrounding changes and conflicts and patient in their work with children and their parents. This finding could be discussed within several equally important frames.

One of them could lie on the importance of distinguishing between predispositional personality and occupational personality (Bonifacio, 1991), as it has been discussed in one study on personality profile of police officers (Leitao de Silva & Queiros, in press). The first one suggests that “*preschool teachers are born*”, exploring the reasons and motivations to choose be a preschool teacher (e.g. to take care of small children, to teach kids during early childhood, to make a differences in children's lives, etc.). Considering this approach, among all other reasons students choose to be a preschool teacher according to their high level of emotional

stability that is very important in their future work with preschool children.

The second one suggests that preschool teacher's personality is “*produced by her experiences once she is on the job*”, implying the effects of job culture and job socialization. In other words, preschool teachers are more emotional stable than some other professionals are; for example schoolteachers, who were more anxious and conscientious than school-librarians (Kenney & Keny, 1982) and had higher results on neuroticism and conscientiousness scales than national norms (Decker & Rimm-Kaufman, 2008). This fact implies at certain job characteristics of preschool teachers in comparison with schoolteachers such as teamwork and responsibility distribution, which could favour lower neuroticism. According to the official document of National Pedagogical Standard in Preschool Care and Education in Croatia (2008_06_drzavni_pedagoski_standard_predskolskog_odgoja_i_naobrazbe.pdf) the work in preschool setting is organized in groups of 20 children within age range between three and six, with two preschool teachers. Therefore, two preschool teachers work with the same preschool group, they work in team and share their responsibility and work tasks as they agree to, and finally they have to cope with the lowest expectations from parents than schoolteachers. Even though Buss and Plomin (1975) emphasized the genetic factors as crucial in explaining the individual differences in personality on the one side and on the other Costa & McCrae (1990, 1997) stated that personality stabilized itself immediately after thirties, both approaches are very argumentative in explaining the low level of neuroticism in preschool teachers. After graduating and finding a job as a preschool teacher, there is a still between nine or seven years of working experience that could have a strong impact on changing the young personality in the direction of lowering the neuroticism, what has been implied by some studies (Bratko, 2002). Therefore, it is very important to equally emphasize both, genetic and environmental factors that influenced on personality development and change in preschool teachers. Regarding the question of causality and changes in preschool teacher's neuroticism, well-designed transversal studies (e.g. comparison in neuroticism between preschool teachers and students of Preschool Education) or longitudinal studies (from the age at the first year of study to the working age) should be conducted in the future. The novelty and the strength of this study is that it emphasizes the importance of the preschool teacher's personality within the process of early care and education, and consequently gave some directions about future studies within two personality theories.

Another possible characteristic that could be ascribed to the cause of determined lower level of neuroticism, could be a greater involvement in the physical activity of any kind of preschool teachers than of other professionals. During their preschool education study, future preschool teachers have been very intensively involved in the kinesiology group of subjects, from the beginning to the end of their study (http://www.ufri.uniri.hr/data/predskolski_eng.pdf). A great number of top athletes have been enrolled at the preschool

education study and have continued their sports activities during academic years. Several studies determined that athlete and physically active individuals score lower on neuroticism scale (Cox, 2002; Tušak, Kandare & Bednarik, 2005; Han, Kim, Lee, Bae, Bae, Kim, Sim, Sung, Lyoo, 2006; Trninić, Barančić & Nazor, 2008). Therefore, very active involvement in different sports definitely contributes to lower level of neuroticism in preschool teachers.

3.2. The Big5 personality traits in preschool teachers

Further statistical analyses showed (Table 1, Figure 2) again something different averages in all subscale's results, than we could observe in normative sample (Srivastava et al., 2003) of the same average age (30 years), or in similar studies conducted in our country (Kardum, Gračanin & Hudek-Knežević, 2008). Overall, preschool teachers score higher on all BFI-subscsles than normative sample ($M_{extraversion}=26.24$; $M_{agreeableness}=27.03$; $M_{conscientiousness}=32.67$; $M_{openness}=39.40$; Srivastava et al., 2003), except on neuroticism subscale ($M_{neuroticism}=25.76$), where they scored significantly lower (Table 1, Figure 2).

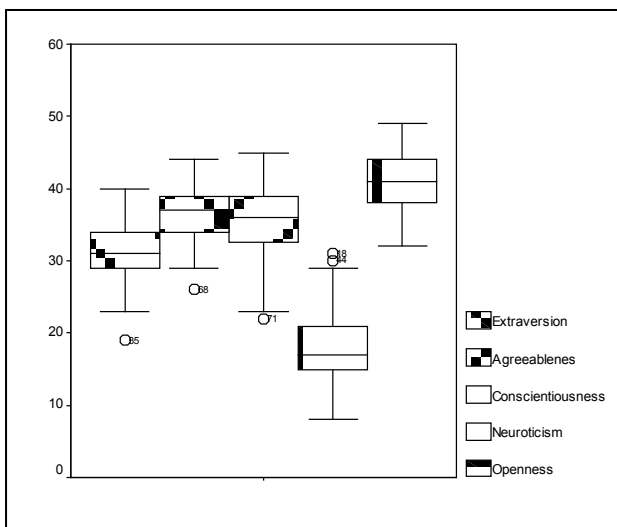


Figure 2. The distribution of five Big5-subscsles results: extraversion, agreeableness, conscientiousness, neuroticism and intellect/openness to experience

In other words, preschool teachers rated themselves as: a) very sociable, active, venturesome, talkative, and optimistic, and warm-hearted on extraversion scale; b) very soft-hearted, as a being of a good nature, trusting, helping, forgiving, open persons, straightforward, honest on agreeableness scale; c) very organized, reliable, assured, self-disciplined, punctual, scrupulous, neat, polite, considerate, ambitious, committed, and persevering on conscientiousness scale; d) very calm, relaxed, not too emotional, hardy, secure, and self-satisfied on neuroticism scale; e) and very curious, of broad interests, intelligent, creative, operational, imaginative and non-conventional on intellect/openness to experience scale. Several research studies demonstrated that extraversion and emotional stability from Big Five personality model are congruent to extraversion

and neuroticism from the Eysenck's model (Mlačić & Knezović, 1997). Therefore, since findings from BFI-scales of extraversion and neuroticism confirmed previously determined and explained results from Eysenck's scales of extraversion and neuroticism, there is no need for some additional discussion on that matter.

Nevertheless, certain novelty could be noticed in the scores gained from remaining three BFI-scales: agreeableness, conscientiousness and intellect/openness to experience. It is very logic and expected to be found within preschool teachers' personality highly expressed traits such as being sympathetic, kind, honest, affectionate, soft-hearted, trusting, helping, forgiving and straightforward, especially if we have in mind the preschool teacher-preschool child interaction. All mentioned characteristics within the frame of agreeableness dimension are highly appreciated from the child point of view. Furthermore, preschool teacher with highly prominent previous personality characteristics had more qualitative relationship and communication with children, and are more popular among kids. Moreover, to be very organized, reliable and self-disciplined, or in one word highly conscientiousness is very important in systematic follow up of child development in all areas: cognitive, social, emotional, motoric. In addition, those characteristics are highly appreciated among preschool teachers within their teamwork. Finally, it is a part of expected characteristics and competencies for preschool teacher to have, to be very curious, of broad interests, creative, operational, imaginative and non-conventional. Highly creative and imaginative preschool teacher present the best co-constructor of the child's world and child's imagination and predoperational thought. The great contribution of this study is lie on the fact that it emphasized those three BFI-dimensions as the main characteristics of preschool teachers that have been implicitly or explicitly expected at the study enrolment phase and highly promoted during study. Exactly those characteristics arise as very important through the various early and preschool study programs all around the world, but they have never been systematically and scientifically been explored and analysed until now. Even though there is very small number of similar studies, this paper has confirmed supposed and expected highly desirable characteristics of preschool teachers within two well-known personality models, what could serve as a clearly defined and established framework for a preschool teacher personality profile. Besides, it is interesting to mention at the end, that athletes score higher on the dimensions of agreeableness and conscientiousness (Cox, 2000; Tušak, Kandare, & Bednarik, 2005; Trninić, Barančić & Nazor, 2008), same as preschool teachers in this study. This is, beside the similarity within neuroticism scores, another similarity between the sample of preschool teachers and athletes, what could be hypothetically ascribed to their similarity in the sport activity engagement.

3.2. Correlation Analyses

The results from conducted correlation analysis of different personality variables, age and work experience could be seen in Table 2.

Table 2. The correlation matrix of four Eysenck's personality dimensions (P=psychoticism, E=extraversion, N=neuroticism, SC=social conformity), five Big5 personality dimensions (E=extraversion, A=agreeableness, C=conscientiousness, N=neuroticism, O=intellect/openness to experience), age and work experience (WE) on the whole sample (N=92)

	Eysenck's and Big5 personality traits								
	P	E	N	SC	E	A	C	N	O
P	1.00	.23*	.14	-.27*	.08	-.22*	-.26*	.00	.03
E		1.00	-.04	-.23*	.67**	-.11	-.01	-.03	.40**
N			1.00	-.16	-.23*	-.12	-.25*	.74**	.14
SC				1.00	-.05	.31**	.42**	-.14	-.06
E					1.00	-.08	.42**	-.24*	.32**
A						1.00	.22*	-.23*	.32**
C							1.00	-.29**	.09
N								1.00	.13
O									1.00
AGE	.00	-.04	-.03	-.05	.08	-.17	.03	.01	.00
WE	-.11	-.09	-.03	-.04	.04	-.18	.22*	-.00	-.04

*p<.05 **p<.01

Analysing the intercorrelations between Eysenck's personality dimensions some differences could be observed regarding other studies' results (Eysenck & Eysenck, 1994). First, it was not determined any significant correlation between neuroticism and other basic dimensions, what has been mentioned previously and what was expected. Second, the significant positive correlation has been determined between extraversion and psychoticism. In other words, the higher level of extraversion is closely connected with the higher level of psychoticism in this sample. Consequently, extraversion and psychoticism showed significant negative relationship with social conformity. Partially, this last finding has been expected, since individuals with higher psychoticism showed lower level of flexibility and social adaptability and sensitivity what resulted in lower social conformity. However, the finding of significant negative relationship between extraversion and social conformity is novel one and surprising too, what implies at certain specificity within personality dimensions in preschool teachers.

To clarify the complex relationship between extraversion, psychoticism and social conformity in this study, partial correlation analysis have been performed. Therefore, analysing the relationship of extraversion and psychoticism, it was determined that significant positive correlation between those two personality dimensions lowered ($r=.18$, $p=.11$) when the social conformity was singled out or partialized. In other words, a part of the extraversion-psychoticism relationship could be ascribed to the social conformity. Similarly,

analysing the relationship of extraversion and social conformity, it was determined that significant negative correlation between those two personality dimensions lowered ($r=-.16$, $p=.15$) when the psychoticism was partialized. Again, certain part of the extraversion-social conformity relationship could be definitely ascribed to the psychoticism. At last, partial correlation analysis of psychoticism and social conformity controlling for extraversion resulted with a rather similar result presented in Table 2 ($r=-.22$, $p=.05$). Therefore, extraversion did not significantly influence the psychoticism-social conformity relationship, so previously gained zero-order correlation has been confirmed. A possible explanation for these results could lie on the fact that a certain number of participants tried to mask their real level of psychoticism, what resulted with the higher results on extraversion and social conformity scales. Consequently, those results influenced on the level and direction of the intercorrelations. However, this additional correlation analysis cleared determined results, what leads to the conclusion that there is no real difference between intercorrelations determined in this study and those determined in other studies.

Furthermore, analysing the intercorrelations between Big5-dimensions, the expected pattern of correlations between 0.11 and 0.46 (Kardum, Hudek-Knežević & Kola, 2005) has been confirmed (Table 2). Neuroticism showed significant negative correlations with all other dimensions except with intellect/openness to experience. Regarding to this finding, it is expected of neuroticism to be negatively related with all other Big5-dimensions (McCrae & Costa, 1990, 1997). All other personality dimensions positively correlated. It is interesting to analyse determined significant positive relationship between intellect/openness to experience and agreeableness, which has not usually obtained in previous studies. In other words, the higher is curiosity, creativity and imagination – the higher is honesty, soft-heartedness and trustworthy in preschool teachers. The possible explanation for this finding could lie on the fact that preschool teacher's creativity presents one of the very important characteristics and competencies within their work with pre-schoolers. Observing the creativity level in that frame, the creativity is in the function of pedagogical work with children. Therefore, it should be flexible and to serve for children needs in the preschool setting. Therefore, it is crucial to analyse preschool teacher's personality not only through the lens of one Big5-dimension but trough the lenses of their interrelationships. For example, the same higher levels of intellect/openness to experience in preschool teachers and in artists at manifest level of personality traits does not look the same at all. Moreover, it is logical that openness to experience did not showed expected negative relationship with neuroticism as it was supposed to. Since, it has completely different roots and has completely different way of manifesting in the preschool setting. The aim of fulfilling children's needs in the work of preschool teacher is the primary one. According to that, preschool teacher's personality traits are placed in this way so that aim could be accomplished.

Finally, analysing the relationship between all personality variables and age/work experience of preschool teachers, it could be seen (Table 2) that only one relationship has been determined to be significant – the one between conscientiousness and working experience. In other words, if the working experience is bigger, the more organized, reliable, assured, self-disciplined, etc. the preschool teacher will be. This finding is confirmed the supposed higher level of conscientiousness in the individuals with higher working experience no matter to individuals profession. In addition, age did not show any significant relationship with personality variables, what only confirmed the results of prior studies concerning the supposed stability of personality traits across lifetime (Bratko, 2002). Therefore, even previous manipulative role of preschool teacher has been slowly changed to a much more varied, subtle, democratic and humane role (Petrović-Sočo, Slunjski & Šagud, 2005), which imposes the need for changing and developing positive personality in preschool teachers (Tatalović Vorkapić & Vujičić, in press), a certain stability in personality traits has been determined here. It would be very interesting to analyse within future studies with possible longitudinal designs the amount of variance that could be ascribed to genetic and environmental factors that influenced the ideal and best-suited preschool teacher's personality in the institutional preschool setting. In addition, it would be also very interesting to ask preschoolers to rate their preschool teachers as the best, the most popular or the most desirable one, so the correlation analysis between those rates and preschool teacher's personality traits could be run. In this way, we could clearly get the answer what the ideal, the best or the most desirable preschool teacher's personality is.

4. Conclusions

Having in mind that: *"Real knowledge comes from those in whom it lives. — John Henry Newman"* (Olsen, 2008a, p. 3), it is very important to scientifically focus on personality traits of preschool teachers. All our preschool teachers and schoolteachers that we had in life have been very important to us, and we definitely remember them for better or for worse (Vasconcelos, 2002). Within the picture of our preschool teachers that we remember, their personalities play a crucial role. This study is significant because it brought the most recent data regarding preschool teacher's personality, while there is a lack of similar objective studies. Within two personality models: Eysenck's and Five Factor, the conducted analyses showed that preschool teachers had higher levels of extraversion, agreeableness, conscientiousness, openness to experience and social conformity than normative sample. Psychoticism level was similar to the one from normative sample, and neuroticism levels, from the perspective of both personality models, were lower than in normative sample. Some different interrelationships between certain personality traits implied at some specificities of personality structure in preschool teachers regarding their

professional role as role models and those who had primary aim of identifying and satisfying children's needs in the preschool setting. Finally, correlations of age or working experience just confirmed prior studies of personality stability within those two personality models and the expected higher agreeableness with the higher working experience.

*"...That the teaching act becomes
The resonance of all our being"*
(Sylvia Ashton-Warner, 1963)

ACKNOWLEDGEMENTS

I would like to thank all Croatian preschool teachers who have been participated in the study, on their good will, time, effort and great cooperation. In addition, I would like to thank prof. Kardum on his great support and cooperation.

REFERENCES

- [1] Ashton-Warner, S. (1963). *Teacher*. New York: Simon & Shuster/Bantam.
- [2] Ayers, W. (1989). *The good preschool teacher: Six preschool teachers reflect on their lives*. New York: Teachers College Press.
- [3] Bauer, S. (2008). What Qualities Should Preschool Teachers Have? *Jakarta Post, September*. [Online]. Available: <http://www.tutortime.co.id/images/download/Teachers+role.pdf>.
- [4] Benet-Martinez, V. & John, O. P. (1998). *Los cinco grandes* across cultures and ethnic groups: Multitrait multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75, 729-750.
- [5] Bonifacio, P. (1991). *The psychological effects of police work: A psychodynamic approach*. New York: Plenum Press.
- [6] Bratko, D. (2002). Kontinuitet i promjene ličnosti od adolescencije do rane odraslosti: Rezultati longitudinalnog istraživanja [Personality continuity and change from adolescence to young adulthood: Longitudinal study. In Croatian.] *Društvena istraživanja*, 4-5(60-61), 623-640.
- [7] Britzman, D. (2003). *Practice makes practice: A critical study of learning to teach*. Albany, NY: State University of New York Press.
- [8] Buss, A. H. & Plomin, R. (1975.). *A temperament theory of personality development*. Willey, New York.
- [9] Buško, V. (1990). Struktura ličnosti i angažiranost sportom. [Personality structure and engagement in sports. In Croatian.] (Graduation paper) Zagreb: Odsjek za psihologiju Filozofskog fakulteta Sveučilišta u Zagrebu.
- [10] Cochran-Smith, M. (2005). The new teacher education: For better or for worse? 2005 presidential address. *Educational*

Researcher, 34(7), 3-17.

- [11] Costa, P. T. Jr. & McCrae, R. R. (1997.). Longitudinal stability of adult personality. In: R. Hogan, J. Johnson & S. Briggs (Eds.), *Handbook of Personality Psychology*, (pp. 269-290). Academic Press, New York.
- [12] Cox, R. H. (2002). *Sport psychology: Concepts and application*. 5th ed. Missouri, Columbia: McGraw Hill.
- [13] Decker, L. E. & Rimm-Kaufman, S. E. (2008). Personality characteristics and teacher beliefs among pre-service teachers. *Teacher Education Quarterly*, 35(2), 45-64.
- [14] Emmerich, W., Rock, D. A. & Trapani, C. S. (2006). Personality in relation to occupational outcomes among established teachers. *Journal of Research in Personality*, 40, 501-528.
- [15] Eysenck, H. J. (1947). *Dimensions of personality*. London: Routledge & Kegan Paul.
- [16] Eysenck, H. J. (1967). *Biological basis of personality*. Charles C Thomas Publisher, Springfield, Illinois, USA.
- [17] Eysenck, S. B. G., Eysenck, H. J. & Barrett, P. (1985). A revised version of the Psychoticism Scale. *Personality & Individual Differences*, 6(1), 21-29.
- [18] Eysenck, H. J. & Eysenck, S. B. G. (1994). *Priručnik za Eysenckove skale ličnosti: EPS-odrasli* [A manual for Eysenck's personality scales: EPS-adults. In Croatian] Naklada Slap, Jastrebarsko.
- [19] Faculty of Teacher Education, University of Rijeka (2010). *Early childhood and preschool education – Course program*. [Online]. Available: <http://www.ufri.uniri.hr/data/RipO-eng.pdf>.
- [20] Galton, F. (1884). Measurement of character. *Fortnightly Review*, 36, 179-185.
- [21] Goldberg, L. R. (1982). From ace to zombie: Some explorations in the language of personality. In: C. D. Spielberger & J. N. Butcher (Eds.), *Advances in personality assessment* (Vol. 1, pp. 203-234). Hillsdale, NJ: Erlbaum.
- [22] Goldberg, L. R. (1999.). A broad-bandwidth, public-domain, personality inventory measuring the lower-level facets of several five-factor models. In: I. Mervielde, I. J. Deary, F. De Fruyt & F. Ostendorf (Eds.), *Personality Psychology in Europe*, 7 (pp. 7-28). Tilburg, The Netherlands: Tilburg University Press.
- [23] Hamachek, D. (1999). Effective Teachers: What they do, how they do it, and the importance of self-knowledge. In: R. P. Lipka & T. M. Brinthaup (Eds.), *The role of Self in Teacher Development* (pp. 189-224). Albany, N. Y.: State University of New York Press.
- [24] Han, D. H., Kim, J. H., Lee, Y. S., Bae, S. J., Bae, S. J., Kim, H. J., Sim, M. Y., Sung, Y. H. & Lyoo, I. K. (2006). Influence of temperament and anxiety on athletic performance. *Journal of Sports Science and Medicine*, 5, 381-389.
- [25] Ivon, H. & Sindik, J. (2008). Povezanost empatije i mašte odgojitelja s nekim karakteristikama ponašanja i igre predškolskog djeteta [Connection between preschool teachers' empathy and imagination and certain characteristics of preschool child's behavior and play. In Croatian] *Magistra Iadertina* 3(3), 21-38.
- [26] John, O. P., Hampson, S. E. & Goldberg, L. R. (1991). Is there a basic level of personality description? *Journal of Personality & Social Psychology*, 60, 348-361.
- [27] John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big-Five trait taxonomy: History, measurement, and conceptual issues. In: O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114-158). New York, NY: Guilford Press.
- [28] John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In: L. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed. pp. 102-138). New York: Guilford Press.
- [29] Kardum, I. & Smojver, I. (1993). Peterofaktorski model strukture ličnosti: Izbor deskriptora u hrvatskom jeziku [Big Five model of personality: Selection of descriptors in Croatian language. In Croatian]. *Godišnjak Zavoda za psihologiju Rijeka*, 2, 91-100.
- [30] Kardum, I., Hudek-Knežević, J. & Kola, A. (2005). Odnos između osjećaja koherentnosti, dimenzija petofaktorskog modela ličnosti i subjektivnih zdravstvenih ishoda [The relationship between sense of coherence, five-factor personality traits and subjective health outcomes. In Croatian]. *Psihologijske teme*, 14(2), 79-94.
- [31] Kardum, I., Gračanin, A. & Hudek-Knežević, J. (2006). Odnos crta ličnosti i stilova privrženosti s različitim aspektima seksualnosti kod žena i muškaraca [The relationship of personality traits and attachment styles with different aspects of sexuality in woman and man. In Croatian]. *Psihologijske teme*, 15, 101-128.
- [32] Kardum, I., Gračanin, A. & Hudek-Knežević, J. (2008). Dimenzije ličnosti i religioznost kao prediktori socioseksualnosti kod žena i muškaraca [Personality Traits and Religiosity as Predictors of Sociosexuality in Women and Men. In Croatian] *Društvena istraživanja*, 3(95), 505-528.
- [33] Keirse, D. & Bates, M. (1984). *Please understand me: Character & temperament types*. California: Prometheus Nemesis.
- [34] Kenney, S. E., & Kenney, J. B. (1982). Personality patterns of public school librarians and teachers. *Journal of Experimental Education*, 50, 152-153.
- [35] Korthagen, F. A. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. *Teaching & Teacher Education*, 20, 77-97.
- [36] Leitao de Silva, A. & Queiros, C. (in press). Sensation seeking and burnout in police officers. In: J. Neves & S. P. Gonçalvez (Eds.), *Occupational Health psychology: From burnout to well-being* (pp. 1-18). Scientific & Academic Publishing, USA.
- [37] Ling, L. Y. (2003). What makes a good kindergarten teacher? A pilot interview study in Hong Kong. *Early Child Development & Care*, 173(1), 19-31.
- [38] McAdams, D. P. (1995). The five-factor model in personality: A critical appraisal. *Journal of Personality*, 60, 329-361.
- [39] MacDonald, C., Bore, M., Munro, D. (2008). Values in action scale and the Big 5: An empirical indication

- of structure. *Journal of Research in Personality* 42, 787-799.
- [40] McCrae, R. R. & Costa, P. T. Jr. (1990.). *Personality in adulthood*. The Guilford Press, New York.
- [41] Milas, G. (2004). *Ličnost i društveni stavovi*. [Personality and social attitudes. In Croatian.] Jastrebarsko: Naklada Slap.
- [42] Mlačić, B. (2002). Leksički pristup u psihologiji ličnosti: Pregled taksonomija opisivača osobina ličnosti [The lexical approach in personality psychology: A review of personality descriptive taxonomies. In Croatian]. *Društvena istraživanja*, 4-5 (60-61), 553-576.
- [43] Mlačić, B., & Knezović, Z. (1997). Struktura i relacije Big Five markera i Eysenckova upitnika ličnosti. [Structure and relations of Big Five markers and Eysenck's personality questionnaire. In Croatian.] *Društvena istraživanja*, 27(1), 1-21.
- [44] Musek, J. (1999). *Psihološki modeli in teorije osebnosti*. [Psychological models and personality theories. In Slovenian.] Ljubljana: Filozofska fakulteta.
- [45] National Pedagogical Standard in Preschool Care and Education in Croatia. Croatian Parliament, Ministry of science, education and sport, Croatia. [Online]. Available: 2008_06_drzavni_pedagoski_standard_predskolskog_odgoja_i_naobrazbe.pdf.
- [46] Oakes, J. & Lipton, M. (2003). *Teaching to change the world*. New York; McGraw-Hill.
- [47] Olsen, B. (2008a). Introducing *Teacher Identity* and This Volume. *Teacher Education Quarterly*, Summer.
- [48] Olsen, B. (2008b). *Teaching what they learn, learning what they live: How teachers' personal histories shape their professional development*. Boulder, CO: Paradigm Publishers.
- [49] Pervin, A. L., & John, P. O. (1997). *Personality: Theory and research*. 7th ed. New York: John Wiley & Sons.
- [50] Petrović-Sočo, B., Slunjski, E. & Šagud, M. (2005). A new learning paradigm – A new roles of preschool teachers in the educational process. *Zbornik Učiteljske akademije u Zagrebu*, 7(2), 329-340.
- [51] Slunjski, E. (2004). *Devet lica jednog odgajatelja/roditelja* [Nine faces of one preschool teacher/parent. In Croatian.] Mali profesor d.o.o. Zagreb.
- [52] Slunjski, E. (2008). *Dječji vrtić – zajednica koja uči: mjesto dijaloga, suradnje i zajedničkog učenja* [Kindergarten – community that learns: the place of dialog, cooperation and collective learning. In Croatian.] Spektar media, Zagreb.
- [53] Srivastava, S., John, O. P., Gosling, S. D. & Potter, J. (2003). Development of personality in early and middle adulthood: Set like plaster or persistent change? *Journal of Personality and Social Psychology*, 84(5), 1041-1053.
- [54] Srivastava, S., John, O. P., Gosling, S. D. & Potter, J. (2008). Development of personality in early and middle adulthood: Set like plaster or persistent change? *Journal of Personality & Social Psychology*, 84, 1041-1053.
- [55] Tatalović Vorkapić, S. & Vujičić, L. (in press). Do we need Positive Psychology in Croatian kindergartens? – The implementation possibilities evaluated by preschool teachers. *Early Years: An International Journal of Research and Development*.
- [56] Trinić, V., Barančić, M. & Nazor, M. (2008). The five-factor model of personality and aggressiveness in prisoners and athletes. *Kinesiology* 40(2), 170-181.
- [57] Tušak, M., Kandare, M., & Bednarik, J. (2005). Is athletic identity an important motivator? *International Journal of Sport Psychology*, 36(1), 39-49.
- [58] Vasconcelos, T. (2002). "I am like this because I just can't be different..." Personal and professional dimensions of Ana's teaching: Some implications for teacher education. In: D. Rothenberg (Ed.), *Proceedings of the Lilian Katz Symposium* (pp. 191-199). Early Childhood & Parenting (ECAP) collaborative University of Illinois, Urbana-Champaign, USA.
- [59] Vujičić, L., Čepić, R. & Pejić Papak, P. (2010). A firmation of the concept of new professionalism in the education of preschool teachers: Croatian experiences. In: G. L. Chova, M. D. Belenguer & T. I. Candell (Eds.), *Proceedings of EDU-LEARN10 Conference* (pp. 242-250). 5th-7th July 2010, Barcelona, Spain. Valencia: IATED.
- [60] Vygotsky, L. S. (1981). The genesis of higher mental functions. In: J. V. Wertsch (Ed.), *The concept of activity in soviet psychology* (pp. 144-188). New York: Sharpe.
- [61] Yonemura, M. (1986). *A teacher at work: Professional development and the early childhood educator*. New York: Teachers College Press.
- [62] Zhang, L. (2007). Do personality traits make a difference in teaching styles among Chinese high school teachers? *Personality and Individual Differences*, 43, 669-679.