

## Manager's Personality and Their Professional Career

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### **Abstract:**

**Introduction:** The research study deals with the personality of managers in regard to their professional career. The main objective of the study was to find the relationship between the personality dimensions according to the Big Five personality traits model and Holland's typology of the six personality types and work environment types.

**Methods:** The research sample consisted of 121 managers from different levels of the subordinate system in state organizations and private companies in Slovakia. The personality dimensions Neuroticism, Extraversion, Openness to experience, Agreeableness, and Conscientiousness were in this research measured by the NEO Five-Factor Inventory. We have also used the SDS questionnaire - Self-Directed Search to determine the personality types and work environment types - RIASEC codes. The statistical evaluation was performed using the SPSS 20 statistical system, with the data evaluated by methods of descriptive and correlation analysis.

**Results:** There were the highest values recorded in Conscientiousness throughout the research sample. The lowest values were recorded in Neuroticism. We found out that the Summary Code of managers is ESI (Enterprising, Social, Investigative), of male managers is EIR (Enterprising, Investigative, Realistic), of female managers is SEC (Social, Enterprising, Conventional). When comparing the individual RIASEC personality types, we found significant differences between males and females. Males are more realistic than females, more investigative and enterprising than females. Females are more social and conventional compared to males. There was no gender difference in artistic orientation. The RIASEC personality types in the entire sample match the RIASEC work environment types according to SDS, regardless of age. The results demonstrated relationships between the NEO - FFI personality dimensions and personality types and RIASEC work environment types codes according to SDS.

**Discussion:** We can say that managers in our research sample are primarily Enterprising types with leading life orientation. Typical representatives of this personality type are characterized especially by

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traits such as dominance, ambition, focus on success, self-confidence, sociability, and responsibility. In the context of a manager's success and their effectiveness, or ineffectiveness in work environment, the most predictive Big Five factor for an effective manager is Neuroticism, all effective managers scored low in Neuroticism. Results obtained by the SDS questionnaire - Self-Directed Search confirm our findings of prevalent personality dimensions in the overall personality profile of managers. The overall RIASEC personality code of managers according to SDS is ESI in the whole research sample, thus we can conclude that in the case of the overall personality type - RIASEC code of manager the dominant personality type is Enterprising/leading, followed by the Social personality type and the third is the Investigative personality type.

**Limitations:** One of the methodological limitations of this research is the number of participants in the research sample. We do not consider this number as representative for the purpose of generalizing the results.

**Conclusions:** Research results show that there is a relationship between professional orientation and personality. Some personality dimensions are significantly related to professional orientation types and to professional interests, whereas others are related only non-significantly or not at all. Significant relations were found between the dimension Openness and Artistic, Leading, and Social type, between the dimension Extraversion and Enterprising and Investigative type, and between the dimension Agreeableness and the Social type. Realistic type was not related to any personality dimension. The dimension Neuroticism was negatively related to all professional types. For the career counseling practice and selection of job seekers and manager position applicants, this may mean that despite confirmation of these convergences, there may be different relations between different Holland's professional types and personality dimensions.

These findings can be the focus of further research on students in their final year of secondary school when they are deciding on their future professional career.

This research study, we believe, has contributed to the understanding of the relationship between personality and professional career. The results confirm that professional orientation and personality interact and influence the professional behavior of a person.

**Key words:** manager personality, professional career, RIASEC personality typology and professional orientation, NEO-FFI, SDS.

## **Introduction**

Holland's typology of six big basic types of personality and professional orientation - also called "Big Six" and the model of five big personality dimensions - "Big Five" are widely accepted models to explore the linkages between personality dimensions and professional orientation and interests. There

were several research studies focusing on the identification of the relationship between the Big Five and the Big Six. Larson, Rottinghaus and Borgen (2002) processed studies by several authors on this issue, finding out that there are several positive connections between the personality types and professional orientation of Holland's RIASEC typology and personality dimensions of Big Five. Darley (1941, as cited in Larson, Rottinghaus, & Borgen, 2002) is considered to be one of the first authors to confirm with his studies that professional interests are related to personality traits. He states that the development of interests "is a consequence or a certain stage of personality development" (Darley, 1941; as cited in Larson et al., 2002, p. 218). Darley developed this subject even more extensively and elaborated the professional interest as a part of the personality theory. He expressed a critical view that until 1995, there was no complexly accepted theoretical model of personality in specialized literature. His analogical attitude was also presented towards the diagnostic methodologies used to detect professional interests. During that period, Holland demonstrated the possibility of using subtests of professional titles in the questionnaire of interests in diagnosing personality. These were the initial stages of development of the Big Six factor model of professional orientation - the Big Six in psychology and career counselling as well.

Holland has been so far accepted among professionals thanks to the idea that professional interests are the personality expression. Holland's hexagon is a pilot model in the psychology of professional orientation and development of a professional career and he is the founder of the social cognitive theory of career. In his theory, he described the subject in interaction with his professional environment. Several authors nowadays propose that convergence between constructs such as interests and personality can be much greater than many have thought. Larson et al. (2002) state that the approaches of some authors support a more coherent view of a person's individuality, such as Costa, McCrae and Holland (1984) and Ackerman and Heggestad (1997), Holland (1997, 1999), Blake and Sackett (1999), Borgen (1986, 1999), and Prediger (1999). This view was summed up by Spokane and Decker, who stated: "It is becoming increasingly clear that interests, self-efficacy, other aspects of personality and professional self-concept may be components of a unified structure of complex primary characteristics" (Spokane & Decker, 1999; as cited in Larson et al., 2002, p. 218).

Larson, Rottinghaus and Borgen (2002) analyzed the results of various studies on this topic. In total they evaluated the results of 2 571 women and 2 358 men. The age of the participants varied and they came mostly from the USA, the Netherlands, and Australia. These various studies have shown that there is a relationship between personality typologies of the Big Six and personality dimensions of the Big Five.

Barrick, Mount and Gupta (2003) also focused on identifying the relationship between personality dimensions and professional orientation using the five

factor model of personality and the professional interest model RIASEC. They also managed to prove the link between these personality dimensions and professional orientation with 11 559 participants.

Hřebíčková (2011) brings also gender differences into this issue, when she states that according to Lynn and Martine (1997) it has been proven that females are more anxious and less assertive compared to males. They also found out that due to Neuroticism, females showed a higher degree of emotional lability.

Professional orientation and personality both influence professional behaviors such as: career choice, job satisfaction, professional career or career changes throughout life. Understanding the connections and differences between them is important for the theoretical as well as the practical shift in the field of psychology of professional orientation. Although each of the individual studies of interest and personality independently contributed to the findings in the surveyed area, the findings did not provide a clear match in size or nature of the connections between Holland's Big Six and the Big Five typology models, but the meta-analyses series examining the correlations of the Big Six and the Big Five models could help to empirically integrate these findings (Larson et al., 2002).

## **1 Methods**

### *1.1 Research sample*

The research sample comprised 121 managers. Participants were at different levels of the subordinate system in state organizations and private companies in Slovakia, such as state administration, education, health care, energetics, etc. Participants had a university degree and participated on a voluntary basis. The research sample consisted of 61 females and 60 males aged from 25 to 67 years. The mean age of males was 43.13 and 43.67 of females.

### *1.2 The course of research*

Data collection ran from May to September 2013 via standardized questionnaires. We used the NEO - FFI (Ruisel & Halama, 2007) and the Slovak version of SDS–Self-Directed Search (Hoskovcová, 2003) to measure personality dimensions. In order to identify the RIASEC code of the individual participants' profession we used the Register of professions, which is a part of the SDS - Self-Directed Search (Hoskovcová, 2003). We also examined demographics such as gender, age, highest level of education, and currently practiced profession. The results were statistically processed using SPSS 20.

## 2 Results

We found out that the highest values were measured in Conscientiousness (with a total gross score of 37.18) within the entire research sample. The lowest values were recorded in Neuroticism (16.26). All of the results are shown in Table 1.

Table 1

*Descriptive statistics of personality dimensions for the entire sample according to NEO-FFI*

	<u>Neuroticism</u>	<u>Extraversion</u>	<u>Openness</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>
Mean	16.26	30.06	25.75	30.08	37.18
Median	16.00	31.00	27.00	31.00	37.00
Standard deviation	8.85	7.35	7.44	6.36	6.73
Minimum	2.00	7.00	10.00	11.00	20.00
Maximum	64.00	47.00	42.00	42.00	48.00

In the NEO - FFI questionnaire we were unable to record a statistically significant difference in recorded values of personality dimensions.

In the group of males and females we recorded the highest values in Conscientiousness (37.58 in males and 36.79 in females). The lowest values were recorded in Neuroticism (15.78 in males and 16.73 in females). The other results are shown in Table 2 and Table 3.

Table 2

*Descriptive statistics of personality dimensions of males according to NEO - FFI*

	<u>Neuroticism</u>	<u>Extraversion</u>	<u>Openness</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>
Mean	15.78	29.95	25.37	29.02	37.58
Median	16.00	29.50	24.50	30.00	39.00
Standard deviation	10.15	7.71	7.78	6.76	6.44
Minimum	2.00	7.00	10.00	11.00	24.00
Maximum	64.00	47.00	42.00	42.00	48.00

Table 3

*Descriptive statistics of personality dimensions of females according to NEO - FFI*

	<u>Neuroticism</u>	<u>Extraversion</u>	<u>Openness</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>
Mean	16.73	30.18	26.13	31.13	36.79
Median	17.00	32.00	27.00	32.00	36.00
Standard deviation	7.42	7.04	7.13	5.81	7.03
Minimum	2.00	11.00	10.00	13.00	20.00
Maximum	37.00	44.00	42.00	42.00	48.00

In the case of the total personality type - the RIASEC code of manager according to SDS - we recorded the highest values in three personality types, namely E - Enterprising (31.83), S - Social (28.74), and I - Investigative (25.40). The lowest values were recorded in A - Artistic (21.36). The other values are shown in Table 4.

Table 4

*Descriptive statistics of the observed RIASEC personality types for the entire sample, N is the number of participants*

	<u>R</u>	<u>I</u>	<u>A</u>	<u>S</u>	<u>E</u>	<u>C</u>	<u>N</u>
Mean	22.40	25.40	21.36	28.74	31.83	24.52	121
Median	21.00	26.00	22.00	29.00	34.00	24.00	121
Standard deviation	11.12	9.69	10.42	10.07	11.16	8.61	121
Minimum	2.00	5.00	1.00	5.00	4.00	6.00	121
Maximum	45.00	49.00	44.00	50.00	49.00	47.00	121

In the group of males, we recorded the highest values in personality types E - Enterprising (34.40), I - Investigative (27.32), and R - Realistic (27.27). The lowest values were recorded in the type A - Artistic (19.78). The other results are shown in Table 5.

For females, we found the code with the highest values in S - Social (31.39), E - Enterprising (29.30), and C - Conventional (26.62). The lowest values were recorded in type R - Realistic (17.61). Other results are shown in Table 6.

Table 5

*Descriptive statistics of the observed RIASEC personality types in the group of males*

	<u>R</u>	<u>I</u>	<u>A</u>	<u>S</u>	<u>E</u>	<u>C</u>
Mean	27.27	27.32	19.78	26.03	34.40	22.38
Median	27.00	27.00	17.50	25.00	37.00	21.00
Standard deviation	11.22	9.73	10.22	9.49	9.56	7.19
Minimum	2.00	5.00	1.00	5.00	11.00	8.00
Maximum	45.00	49.00	44.00	48.00	49.00	37.00

Table 6

*Descriptive statistics of the observed RIASEC personality types in the group of females*

	<u>R</u>	<u>I</u>	<u>A</u>	<u>S</u>	<u>E</u>	<u>C</u>
Mean	17.61	23.51	22.90	31.39	29.30	26.62
Median	17.00	24.00	25.00	32.00	32.00	26.00
Standard deviation	8.75	9.34	10.46	9.98	12.08	9.41
Minimum	2.00	5.00	2.00	6.00	4.00	6.00
Maximum	39.00	42.00	43.00	50.00	47.00	47.00

As shown in Table 7, a moderately strong positive connection was recorded between:

- RIASEC Artistic personality type and personality dimension Openness according to the NEO - FFI ( $r_s=0.533$ ; sig=0.000; N=121);
- RIASEC Enterprising personality type and Extraversion according to the NEO - FFI ( $r_s=0.437$ ; sig=0.000; N=121);
- RIASEC Social type and personality dimension Extraversion according to the NEO - FFI ( $r_s=0.288$ ; sig=0.001; N=121);
- RIASEC Investigative type and personality dimension Openness according to the NEO - FFI ( $r_s=0.207$ ; sig=0.022; N=121);
- RIASEC Social type and personality dimension Agreeableness according to the NEO - FFI ( $r_s=0.241$ ; sig=0.008; N=121);
- RIASEC Enterprising type and personality dimension Conscientiousness according to the NEO - FFI ( $r_s=0.485$ ; sig=0.000; N=121);
- Realistic type and Neuroticism ( $r_s=-0.197$ ; sig=0.031; N=121), Investigative type and Neuroticism ( $r_s=-0.332$ ; sig=0.000; N=121), Enterprising type and Neuroticism ( $r_s=-0.442$ ; sig=0.000; N=121).

Table 7

*Spearman cardinal correlation - nonparametric test detecting the correlation between RIASEC personality types according to SDS and personality dimensions according to NEO - FFI (N=121)*

		<u>Neuroticism</u>	<u>Extraversion</u>	<u>Openness</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>
<i>R</i>	$r_s$	-.197(*)	.092	.081	.063	.178
	Sig.	.031	.313	.380	.493	.051
<i>I</i>	$r_s$	-.332(***)	.168	.207(*)	.167	.195(*)
	Sig.	.000	.066	.022	.068	.032
<i>A</i>	$r_s$	-.066	.220(*)	.533(***)	.226(*)	.019
	Sig.	.473	.015	.000	.013	.833
<i>S</i>	$r_s$	-.157	.288(**)	.230(*)	.241(**)	.060
	Sig.	.085	.001	.011	.008	.514
<i>E</i>	$r_s$	-.442(***)	.437(***)	-.040	-.125	.485(***)
	Sig.	.000	.000	.660	.172	.000
<i>C</i>	$r_s$	-.008	-.034	-.228(*)	.172	.343(***)
	Sig.	.929	.712	.012	.059	.000

In our research, we also found other interesting correlations between RIASEC personality types according to SDS and personality dimensions according to NEO - FFI. We found a weak significant positive connection between the Investigative type and Conscientiousness ( $r_s=0.195$ ;  $sig=0.032$ ;  $N=121$ ), a moderately strong significant positive connection between the Artistic type and Extraversion ( $r_s=0.220$ ;  $sig=0.015$ ;  $N=121$ ), a moderately strong significant positive connection between the Artistic type and Agreeableness ( $r_s=0.226$ ;  $sig=0.013$ ;  $N=121$ ), a moderately strong significant positive connection between the Social type and Openness ( $r_s=0.230$ ;  $sig=0.011$ ;  $N=121$ ), and a moderately strong significant positive connection between the Conventional type and Conscientiousness ( $r_s=0.343$ ;  $sig=0.000$ ;  $N=121$ ). The results are in Table 7.

### 3 Discussion

The aim of the research was to determine the relationship between the personality dimensions according to the Big Five model of personality factors and Holland's typology of Big Six personality types and types of professional environment by managers. The subject of the research interest was also to monitor the differentiation and interdependence of professional orientation of managers in this research sample and possible differences or compliance. We also focused on identifying the overall personality profile of managers and possible gender differences in personality dimensions.

In the first field of the research, we identified the personality dimensions of the NEO - FFI most commonly found in the overall personality profile of managers throughout the research sample, with the personality dimensions most often held by managers - males and females. We compared whether there are significant



differences in personality dimensions between managers - males and females. We examined personality types of RIASEC manager codes, their compliance with the professional environment codes which they have built professional careers in, and gender differences.

We found that the personality dimension Conscientiousness prevails in the overall personality manager profile, in the second place with the comparable score are Extraversion and Agreeableness with a minimum score difference (0.02 point) in favor of the Agreeableness dimension. In the third place, there is the dimension Openness. In the entire research sample of managers, we recorded the lowest occurrence of the personality dimension Neuroticism. In general, successful managers have a personality portrait created by the combination of dimensions: average to high Conscientiousness, Openness to experience, and Extraversion. They score low in the dimension Neuroticism (Kollárik, Lisá, & Ritomský, 2013). The research results are consistent with the authors' statements.

We also found out what the overall personality profile of the manager - man looks like according to the personality dimensions of the NEO - FF inventory. When examining the measured personality dimensions of male managers, we found that their personality profile was dominated by the personality dimension Conscientiousness. The second place was taken by Extraversion and Agreeableness with minimal score difference (0.93 point) in favor of Extraversion. The third was the personality dimension Openness and male managers are least characterized by Neuroticism.

The goal of this research was also to find out what the overall personality profile of the manager - woman according to the NEO - FF inventory would be. When diagnosing the measured personality dimensions of managers, we found that their personality profile was dominated by the personality dimension Conscientiousness, second were Agreeableness and Extraversion with minimal score difference (0.95 point) in favor of Agreeableness. Third was personality dimension Openness. Personality dimension Neuroticism was the least common among managers in general.

We also monitored whether there was a statistically significant difference in the personality diagnosis results according to the NEO - FFI between males and females in managerial positions. Through the separate personality dimensions diagnosis results of the male and female manager groups, we found that the most common personality dimensions in both groups are comparable and also corresponding to the results of the whole research sample. Based on the obtained results, we can state that there was no significant difference in the results of the personality dimensions diagnosis between male managers and female managers in the individual personality dimensions diagnosed by the NEO - FFI.

These research results do not coincide with the results of the studies by Lynn and Martine (1997; as cited in Hřebíčková, 2011) concerning personality dimensions. In the study of these authors, unambiguous differences in the

personality dimension Extraversion were not found. There were differences in the degree of Neuroticism, women showed a higher degree of emotional lability, compared to males they were more anxious and emotionally more unstable with a higher score in Neuroticism and lower score in Openness. Males were characterized as more searching for exciting experiences, more assertive and open to ideas. Females scored higher in Openness to aesthetic experiences, in experiencing emotion and Agreeableness. These differences can be explained by the fact that unlike the participants of the research, this research sample consisted of managers.

The results of this research are consistent with the Silverthorne's study (1999; as cited in Kanderová, 2011), who conducted a research on the sample of both male and female managers in state organizations as well as private companies in the USA. In the context of managers' success and their effectiveness or ineffectiveness at work, the most predictive factor for an effective manager is Neuroticism of the Big Five personality dimensions model. He stated that every effective manager had a low score in the Neuroticism dimension. Effective managers, who scaled up in the dimensions Extraversion, Conscientiousness, and Openness to experience, were more pleasant and emotionally more stable than inefficient managers.

The managers in this research sample most often scored in the personality dimensions Conscientiousness, Extraversion, Agreeableness, and Openness, what we consider to be positive predictive factors in performing their leading function. The dimension Conscientiousness of the Big Five factors theory includes sub-dimensions capability, discipline, purposefulness, responsibility, orderliness, and caniness. Empirical evidence supports the importance of conscientiousness at work in terms of professional self-realization. The work achievement of conscientious people is also based on their orderliness, which also includes organization and results in the efficiency of work performance. Agreeable individuals are accepted in work contact as socially desirable, patient and mentally resistant, therefore they are well suited for team professions (Costa & McCrae, 1992). Extraverts tend to be more successful in their professional career and occupy managerial positions.

The aim of this study was to find the overall personality type - RIASEC manager code according to SDS in the whole research sample. Identified prevailing personality dimensions in the overall personal manager profile are also confirmed by the SDS questionnaire - results obtained by the Self-Directed Search. The personalized summary RIASEC code of managers according to SDS in the entire research sample is ESI, which suggests that in the case of this overall personality type - RIASEC manager code is dominated by Enterprising - leading personality type in the first place, Social personality type comes in the second place and Investigative personality type comes in the third place.

We can state that managers in the research sample are primarily Enterprising types with leading life orientation. Typical representatives of this personality

type are characterized, in particular, by features such as domination, ambition, focus on success, self-confidence, sociability, and responsibility. Individuals of this type are successful and popular in their work and personal contact with others. They are energetic, with adventurous inclinations. They are oriented towards social success, which they achieve through organizational, economic and political resources. They prefer a work environment that requires organizational skills, dominance and high degree of argumentation. They enjoy talking to others about business topics, wanting to convince or manage them. They are professionally successful in professions such as personnel management, business, and sales. For their well-developed communication skills, they occupy professional positions of a spokesperson or politically engaged representative of a particular interest group of people. In the social field, they are oriented more towards achieving organizational and economic goals than towards people. They are often employed as managers in professions corresponding with this personality type - commercial lawyer, judge, attorney, public prosecutor, bank expert, tax adviser, diplomat, IT manager, economic manager, project manager, school director, wholesaler (Holland & Gottfredson, 1975; Mezera, 2005).

The Social personality type in the second place of the overall RIASEC personality manager code ESI means that managers in our research sample have in addition to an enterprising guiding orientation a significant social life orientation. Individuals with this personality orientation prefer the social type of activities to technical and other precisely defined activities. Socially they are very friendly, kind and willing to cooperate with an inclination to altruism and idealism. The dominating personality trait is communicability and extraversion. Social types prefer group activities and cooperate well in counseling, treatment, education of children and adults. They have a wide range of interpersonal skills, they are empathic, tactful and thoughtful, able to share troubles of others and discuss them. Typical representatives of this type are characterized by traits such as joy from contacts, friendliness, willingness to help, understanding, compassion, and warm-heartedness. These attributes are sub-dimensions of the personality dimension Agreeableness, which we diagnosed by the NEO - FFI together with the comparable score of Extraversion as the most common personality trait of managers. These types seek a work environment where they can cooperate in teams of similarly oriented people. Social personality dimensions are relatively stable personality traits manifesting in social interaction. The essence of social competence is social maturity - a combination of personality dimensions contributing to the quality of the individual's interaction with the social environment. Social maturity is a part of social intelligence - a multidimensional construct expressing the ability of a person to actively adapt to real social situations and succeed in them (Kollárik, 2010). Occupations corresponding to the Social type are professions requiring a higher level of education such as psychotherapist, counselor, university teacher, clinical

psychologist, physician, human resources development expert, sport trainer, or personal counselor.

Investigative personality type in the third place of the overall RIASEC personality manager code ESI means that managers in this research sample have, in addition to enterprising leading and social orientation, also an investigative personality, with a scientific, curious and exploring life orientation. Individuals of this personality type prefer intellectual, investigative and analytical activities, and are well oriented in research and science. They are methodologically oriented, and they look for cognitive - creative activities. They enjoy learning and receiving new information, prefer cognitive and scientific activities that require symbolic, creative and systematic thinking. They like reading and discussing science and scientific topics. They perceive themselves as precise, scientifically oriented individuals. Their values are oriented toward lifelong learning and improving their mathematical and scientific dispositions. These types are characterized by features such as intellectuality, resourcefulness, logic, precision, rationality and efficiency, and curiosity. These personality traits are also confirmed by the NEO-FFI diagnosis result, in which the personality dimension Conscientiousness has reached the highest score in managers.

Investigative personality types seek professions such as analyst of the information system, chemist, geneticist, biochemist, system analyst, programmer, surgeon, research engineer, pharmacist, cardiologist, or crime investigator.

When examining the RIASEC manager code we also investigated what is the total personality type - RIASEC code for the group of males and the group of females, respectively. The overall RIASEC male managers' code is EIR (Enterprising, Investigative, Realistic) and the overall RIASEC female managers' code is SEC (Social, Enterprising, Conventional). The enterprising leading life orientation in personality code is present in both groups, in the group of males is the investigative life orientation in conformity with the overall manager code, in the group of females it is the social life orientation. The difference between male and female groups is at the third code position. A more detailed analysis showed that males are compared to females more realistically, with practical - technical interests, more enterprising and investigative, on the other hand females are more socially and conventionally oriented than males. There was no difference in the artistic orientation. The gender differences in the RIASEC codes are explained with a reference to individual personality types according to the social cognitive theory of career by J. Holland. Males show a high degree of masculinity attributable to typically male characteristics. They prefer physical activities focused on strength and prefer practical - technical interests, they are closer to realistic types of occupation with motor, manual or manual-technical life orientation. Typical female characteristics are social and conventional life orientation. Conventional people are reliable, work

conscientious with a tendency to pedantism and are efficient at work (Mezera, 2005). The findings of this research are consistent with these characteristics.

We also examined whether there is a match between the personality type of managers - RIASEC code in the entire research sample and the type of work environment - RIASEC code according to SDS. We identified the match by comparing the three-digit personality types - RIASEC codes of completed SDS questionnaires to the three-digit RIASEC code of the work environment, where the managers have built their professional career according to the SDS Register of Professions. The codes were accepted as identical, if there were two or three identical letters in both codes independent of the order (Hoskovcová, 2003). In the entire research sample, we found that a match between managers' RIASEC personality type and the type of RIASEC work environment, where managers have built their professional career, occurs in 96% of managers. These results are consistent with the social cognitive theory of career by J. Holland, stating that a process of choosing a profession is a process of evolving interests and personality differentiation, which at the stage of decision-making leads to the specific favoring of one occupational group of the six professional groups set. There was a difference between the RIASEC personality type and the RIASEC work environment type occurring only in 4% of managers.

In the second area of this research we responded to the hypotheses about interdependencies between individual RIASEC personality types according to SDS and personality dimensions according to NEO - FFI. The results prove the existence of several significant positive connections between professional orientation and personality dimensions.

On the basis of the hypotheses we established, we have been able to find a positive connection between the Artistic type and the personality dimension Openness, which have confirmed our hypothesis. We found out that artistic orientation and openness to experience (0.533) have the strongest relationship. The statement that artistic interests are related to Openness to experience is not a new one. This overlap is evident from several studies, beginning with the first study by Costa, McCrae and Holland (1984), but also in recent studies by Larson and Borgen (2002). Holland's concept of artistic orientation goes beyond the narrow definition of artistic activities involving writing, music and theater interests. It assumes that both dimensions are related to a higher level of education, and Artistic types are intellectually based, imaginative and verbally proficient. Participants in the entire research sample have a university degree. Our results are consistent with the studies of Costa et al. (1984), De Fruyt and Mervielde (1997), Gottfredson et al. (1993), Holland et al. (1994), Tokar and Swanson (1995), and Tokar et al. (1995; as cited in Larson et al., 2002).

Another proof of convergence of professional interests and personality dimensions is the context of Extraversion. The results show that extraverted individuals tend to be enterprising and socially professionally oriented.

Positive relationship between Enterprising/leading type and the personality dimension Extraversion was also assumed by the research hypotheses, which we were able to confirm, as we found the link between Enterprising/leading type and Extraversion to be one of the strongest (0.437). These findings have also been known in the studies by Costa and his colleagues McCrae and Holland since 1984, but they also appear in the literature later on in the research by Tokar et al. (1995, as cited in Larson et al., 2002). Some of the links were also reflected in the Extraversion descriptions in the NEO-PI-R manual, where Costa and McCrae (1992) described extraverts as impressive, dominant and energetic. The Enterprising type is characterized by similar features as the personality dimension Extraversion. In the social environment, the individual is energetic, social, with good social contacts and the initiative to create qualitative social relations in professional contact as well. The results of our research are consistent with the studies of Costa et al. (1984), De Fruyt and Mervielde (1997), Holland et al. (1994), Tokar and Swanson (1995), and Tokar et al. (1995; as cited in Larson et al., 2002).

We also found a positive relationship between the social type and the personality dimension Extraversion, which confirmed another hypothesis. Personality with a social life orientation has similar features as the sub-dimensions of Extraversion. The dominating personality trait of the Social type is communicability and extraversion. Social types control a wide range of interpersonal skills and search for a work environment where they can work in a team of similarly oriented individuals. The result of this research is consistent with the studies of Costa et al. (1984), De Fruyt and Mervielde (1997), Holland et al. (1994), Tokar and Swanson (1995), and Tokar et al. (1995; as cited in Larson et al., 2002).

We also assumed a positive relation between the Investigative type and the personality dimension Openness. People who incline to investigative, scientific professional interests are also more open to new experiences, what confirms the hypothesis. The interconnectedness of the Investigative/scientific type with Openness can be explained by the fact that the Scientific RIASEC type has similar personality characteristics compared to sub-dimensions of the NEO - FFI personality dimension Openness. The Investigative/scientific type is characterized by traits such as intellectuality, science, and curiosity. These types look for cognitive-creative activities, and enjoy learning and receiving new information. The Openness dimension is characterized, in particular, by unconventionality, openness to new experience and information. Intellectual orientation of open individuals can be a tool for a successful professional career. The result of this research is consistent with studies by Costa et al. (1984), Gottfredson et al. (1993), Holland et al. (1994), Tokar and Swanson (1995), and Tokar et al. (1995; as cited in Larson et al., 2002).

This assumption was confirmed, and it was verified by the positive link between the social type and the personality dimension Agreeableness. Among the characteristics of the social type overlapping with Agreeableness are

friendliness, kindness, and willingness to cooperate with a tendency to altruism. Sub-dimension altruism is the most significant characteristic of the agreeable personality. It is characterized by trying to help others, consideration, and innocence. In working environment, they are affable individuals who are accepted as social, patient and psychologically resilient, therefore they are well applied in team professions. In Holland's theory, altruism and care represent a convergent relationship in the context of social life orientation. The outcome of this research coincides with the conclusions of studies by De Fruyt and Mervielde (1997), Tokar and Swanson (1995), and Tokar et al. (1995; as cited in Larson et al., 2002).

We also assumed a positive relation between the Enterprising/leading type and the personality dimension Conscientiousness. We found that the link between Enterprising/ leading orientation and Conscientiousness is one of the strongest (0.485), which has confirmed our assumption. Enterprising/leading personality types prefer a work environment that requires organizational skills, dominance and a high degree of argumentation. Enterprising individuals are oriented towards professional and social success, achieved by organizational, economic and political resources. We can see the convergence of these characteristic with the personality dimension Conscientiousness with its sub-dimensions, which are competence, order, dutifulness, achievement striving, self-discipline, and deliberation (Hřebíčková, 2004). Costa and McCrae (2003) mention three related aspects of Conscientiousness: sedulity - perseverance, reliability - responsibility, and order - organization. The outcome of this research supports the conclusions of the study by Gottfredson et al. (1993; as cited in Larson et al., 2002).

We assumed a negative relation between the RIASEC types and the personality dimension Neuroticism. We found that all of the investigated relations between personality types and the Neuroticism dimension are negative, which have confirmed the research hypothesis. The authors Costa and McCrae (2003) include these sub-dimensions in Neuroticism: anxiety, hostility, depression - crisis, shyness - skittishness, vulnerability - fragility, and impulsivity. They claim that Neuroticism is the strongest personality trait and is the dominant trait of almost all the measurements. When comparing the sub-dimensions of Neuroticism to the characteristics of personality types according to Holland, we did not find any convergence. The results of the current research are consistent with the study (Larson et al., 2002).

In this study, we found a relationship between professional orientation of managers according to Holland's theory of Big Six and dimensions of their personality defined by the NEO - FF inventory. The obtained research results on the links between personality dimensions and professional orientation of managers represent the potential for selecting job applicants and managerial position candidates. The results are also potentially useful for career choice counseling or career planning, but they are not universally applicable. In particular, we acknowledge the informational value of Holland's Big Six factor

model and the Big Five personality dimensions model, which are a synergy of increasing the traditional evaluation in career counseling. However, the link between the Big Six factors model of professional orientation and the Big Five personality dimensions model is not extensive enough for the methodologies to interfere with each other, nor is the number of participants a representative sample.

The results of this research show that the relationship between these two methodologies is more direct in some of the compared professional orientation types and personality dimensions than in others. For example, realistic types show a minimal overlap with one of the personality dimensions of the Big Five, so the connection between individual factors cannot be interpreted beyond Holland's theory. Similar results have also been obtained in the Neuroticism dimension, although we found a negative relationship of this dimension and professional orientation. Other studies show that Neuroticism refers to the so-called career insecurity and also seems to be largely independent of professional orientation (Tokar et al., 1995; as cited in Larson et al., 2002). In the practice of career counseling and in selection procedures, it is also important to take into account the results of the overall psychological diagnosis of an individual.

In the school environment, the research findings can be used both, from the teacher's and the student's point of view. According to Dytrt-Krhut (as cited in Pasternáková & Laca, 2011), the teacher should be psychologically resilient, which means that they have an insight into the nature and essence of the problem situation, they should be adaptable and adjustable, so they should be able to solve problems, be capable and willing to acquire new knowledge, and be socially empathetic and communicative. Sós (2018) in his study says that even in such situations teachers can apply the results of this research in career choice counseling for pupils choosing a vocation or students deciding on a university. Through the methods we have chosen, we can verify this claim. Therefore, we recommend verifying the statement in further research using the NEO-FFI questionnaire methods and Holland's typology of the Big Six personality types and types of the professional environment. From the student's point of view, we can also use our chosen methods. Every other job position and career decided upon by a student at a secondary school or college also requires certain personality dimensions and typologies or prerequisites to perform the job correctly. The methods we have used in this research can create an image of the factors and personality typology required for a specific job position. This can be used, for example, in students deciding on their professional career and looking for an answer to whether they can perform the job or not. A teacher or a school psychologist can on the basis of these questionnaires' results together with the students consider their decisions, or determine which competencies are necessary to strengthen or eliminate in order to practice the particular profession for which students decide, or what kind of professional career is appropriate, taking into account the student's personality dimensions and typology.



#### **4 Limitations**

The aim of the research was to determine the relationship between the personality dimensions according to the Big Five model of personality factors and Holland's typology of Big Six personality types and types of professional environment by managers. The subject of the research interest was also to monitor the differentiation and interdependence of professional orientation of managers in this research sample and possible differences or compliance. We also focused on identifying the overall personality profile of managers and possible gender differences in personality dimensions.

#### **Conclusion**

The main objective of the research was to find the relationship between the personality dimensions according to the Big Five personality factors model and Holland's typology of Big Six personality types and types of professional environment. We examined which personality dimensions are the most common in the overall manager profile and compared whether there are significant differences in the personality dimensions of managers between male and female. The subject of the research was also to find the overall personality type of managers according to RIASEC and to compare whether there were significant differences in personality types according to Holland's typology between male and female. We also raised the question of age relatedness, or of the difference between a personality type of manager in Holland's model and the type of professional environment in which they have built a professional career.

For this purpose, we have used two diagnostic methods - for measuring the personality dimensions, the NEO Five-Factor Inventory (Ruisel & Halama, 2007) was used and for diagnosing the personality types and types of work environment according to RIASEC, the SDS questionnaire - Self-Directed Search (Hoskovicová, 2003) was used.

The research results show that in the overall personality profile of the manager, the most common personality dimensions are Conscientiousness, Extraversion, Agreeableness, and Openness. There was no significant difference in personality dimensions diagnosed by the NEO - FFI between male and female managers. In the entire research sample of managers, we recorded the lowest occurrence of the personality dimension Neuroticism. The total RIASEC personality code of managers according to SDS is ESI in the entire research sample. It is a dominance of the Enterprising/leading personality type in first place, the Social personality type in second place and Investigative personality type in third place. When comparing individual personality types according to Holland's theory, we found differences between managers - males and females. Males are more realistic, more investigative and enterprising in comparison to females. Females are more social and conventional in comparison to males. There was no difference in artistic orientation. Further findings led to the observation that

when comparing personality and professional types, 96% of managers are in agreement with their personality type and the type of work environment in which they have built their professional careers.

From the research results it is clear that the relationship between professional orientation and personality exists. Some personality dimensions are significantly linked to the types of professional orientation and to professional interests, while others are linked only non-significantly or not at all. We found significant relations between dimensions Openness and the Artistic, Leading and Social type, between dimensions Extraversion and the Enterprising/Investigative type, and between Agreeableness and the Social type. No personality dimension was associated with the Realistic type. The dimension Neuroticism was negatively related to all of the professional types. For the career counseling practice and selection of job-seekers and manager position applicants, this may mean that despite confirmation of these convergences, there may be different relations between different Holland's professional types and personality dimensions. A person who is clearly an enterprising type may have extravert characteristics. A person with a clear artistic interest can be more open to new experience. But a client with a clear realistic type of professional orientation does not have to be associated with a significant, typical personality profile.

Professional orientation and personality influence professional behavior such as career choices, satisfaction at work and satisfaction with work, professional career and professional changes in the course of people's lives. Understanding the relationships and differences between them is considered to be important for their theoretical as well as practical shift in the field of work and organizational psychology and career counselling.

## **References**

- Barrick, M. R., Mount, M. K., & Gupta, R. (2003). Meta-analyses of the relationship between the five-factor model of personality and Holland's occupational types. *Personnel Psychology*, *56*, 45-73. Retrieved from [www.elsevier.com/locate/jvb](http://www.elsevier.com/locate/jvb)
- Costa, P. T., & McCrae, R. R. (1992). Revised NEO-Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI): *Professional manual*. Odessa, FL: Psychological AssessmentResources. Retrieved from [www.sjdm.org/dmidi/NEO-FFI.html](http://www.sjdm.org/dmidi/NEO-FFI.html)
- Costa, P. T., & McCrae, R. R. (2003). *Personality in adulthood: A five-factor theory perspective*. New York: The Guilford Press. Retrieved from [www.proquest.com](http://www.proquest.com)
- Costa, P. T., McCrae, R. R., & Holland, J. L. (1984). Personality and vocational interests in an adult sample. *Journal of Applied Psychology*, *69*, 390-400. Retrieved from [www.psycnet.apa.org/psycinfo/1984-32863-001](http://www.psycnet.apa.org/psycinfo/1984-32863-001)
- Holland, J. L., & Gottfredson, G. D. (1975). *Using a typology of persons and environments to explain careers: Some extensions and clarifications*.

- Baltimore: Johns Hopkins University, Md Centre for Study of Social Organization of Schools. Retrieved from [www.ebsco.com](http://www.ebsco.com)
- Hoskocová, S. (2003). *DVP - Dotazník volby povolání a plánování profesní kariéry*. Praha: Testcentrum.
- Hřebíčková, M. (2004). *NEO osobnostní inventář: Příručka*. Praha: Testcentrum.
- Hřebíčková, M. (2011). *Pětifaktorový model v psychologii osobnosti: Přístupy, diagnostika, uplatnění*. Praha: Grada Publishing.
- Kanderová, D. (2011). *Osobnostné vlastnosti manažéra v súvislosti s charakteristikou sociálnej atmosféry v pracovnej skupine* (doctoral thesis). Bratislava: Univerzita Komenského, FSEV.
- Kollárik, T. (2010). *Sociálna psychológia práce*. Bratislava: Univerzita Komenského.
- Kollárik, T., Lisá, E., & Ritomský, A. (2013). *Psychodiagnostika manažérov*. Žilina: Eurokódex.
- Larson, L. M., & Borgen, F. H. (2002). Convergence of vocational interests and personality: Examples in an adolescent gifted sample. *Journal of Vocational Behavior*, 60, 91-112. Retrieved from [www.proquest.com](http://www.proquest.com)
- Larson, L. M., Rottinghaus, P. J., & Borgen, F. H. (2002). Meta-analyses of Big Six interests and Big Five personality factors. *Iowa State University. Journal of Vocational Behavior*, 61, 217-239. Retrieved from [www.paultrapnell.com/4300/upload/?act=dl&file](http://www.paultrapnell.com/4300/upload/?act=dl&file)
- Mezera, A. (2005). *Hollandova teorie profesního vývoje. Příručka*. Praha. Retrieved from [http://vzdelavani.unas.cz/Holland\\_typology.doc](http://vzdelavani.unas.cz/Holland_typology.doc)
- Pasternáková L., & Laca, S. (2011). *Ponímanie osobnosti učiteľa v súčasnej škole*. Retrieved from <https://www.pulib.sk/web/kniznica/elpub/dokument/Istvan1/subor/Pasternakova.pdf>
- Ruisel, I., & Halama, P. (2007). *NEO päťfaktorový osobnostný inventár (podľa NEO Five Factor Inventory P. T. Costu a R. R. McCraeho)*. Praha: Testcentrum-Hogrefe.
- Sós, T. (2018). The interrelations of competency expectations in connection with career-starter skilled workers in the counties of Northern Hungary. *Acta Educationis Generalis*, 8(2), 54-62. doi: 10.2478/atd-2018-0011