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RELATIONSHIP BETWEEN PROFESSIONAL SELF-AWARENESS AND DEMOGRAPHIC VARIABLES AMONG CZECH AND SLOVAK PEDAGOGY STUDENTS

Abstract: Making the right educational and career decisions requires conscious and reflective action. Professional self-awareness is a complex structure enabling a person to reflect on their resources, actions and goals in the context of development. The aim of this article is to present partial results of a study on the level of professional self-awareness among university students from the Czech Republic and the Slovak Republic. The study was conducted among 134 students using a questionnaire measuring three components: cognitive, emotional-motivational and behavioural. The results showed a relatively high level of declared self-awareness in both groups, with no significant differences between countries. Greater self-awareness was associated with age, education, study mode, and residence. These findings suggest that the development of professional self-awareness is not only a function of national or institutional conditions, but can also be enhanced by educational, social and professional experiences.

Keywords: professional self-awareness, professional development, university student, career orientation

1. Introduction

Contemporary labour market transformations, educational changes and growing expectations towards graduates increase the importance of professional self-awareness in students' educational and career development. Many authors emphasise the important role of professional self-awareness in both personal and professional development (Rasheed et al., 2019). Knowledge of one's own predispositions, interests and limitations can form the foundation of a mature

professional identity, which facilitates making the right educational and professional decisions and acts as a kind of compass in adult life.

It should be noted that the level of professional self-awareness in these studies is understood in universal terms. To specify particular aspects, it is necessary to refer to a specific profession, as they may vary depending on the environment. For instance, in education, levels of pedagogical self-awareness have been identified, such as regulatory-pragmatic, egocentric, stereotype-dependent, subjectively accepting and subjectively universal (Bayramova, 2024).

1.1. Theoretical background of professional self-awareness

The construct of professional self-awareness consists of two elements: self-awareness and professional awareness. The development of professional awareness, as part of becoming a professional, is currently an important issue in psychology (Azatian et al., 2020). Some authors, such as Hren and Mykhailychenko (2025), emphasise their interrelationship, stressing that self-awareness supports self-direction and self-fulfilment.

Self-awareness is a cognitive mechanism enabling individuals to become familiar with their experiences. It provides knowledge of conscious states (Ziemińska, 2020). Similarly, Carden, Jones and Passmore (2022) argue that self-knowledge results from self-awareness. In the professional context, self-awareness enables reflection, recognition of discrepancies between personal characteristics and professional demands, and readiness for self-development, including goal-setting and planning (Hren & Mykhailychenko, 2025).

Self-awareness is a lifelong, dynamic process of self-discovery (Eckroth-Bucher, 2010; Lauster, 1995). It develops through interaction with emotional and behavioural stimuli, social contacts, reflection and cognitive processes, supporting self-regulation, self-focus and emotional growth (Morin, 2011).

The educational and professional environment plays a key role in professional self-awareness. Conscious career choices are linked to self-awareness, professional attitudes, positions and career self-determination. Thus, the development of professional awareness, alongside competences and characteristics, significantly influences students' professional development (Azatian et al., 2020, p. 39,43).

Research by Zhanna G. Garanina and Natalia V. Andronova (2020) among 112 psychology students at Mordovia State University revealed correlations between self-development, readiness for self-knowledge, and personal and professional characteristics. Students with higher self-development scores showed greater awareness of personality changes and the emergence of new professional traits. Reported changes included growth in communication, cognitive and reflective abilities, as well as increased tolerance, perceptiveness and understanding of others. They also demonstrated adequate self-esteem.

The research also showed a correlation between certain structural indicators of personality and the specifics of students' self-development. According to the authors, strong correlations between reflection, self-regulation, attitude towards oneself and self-esteem may indicate that these traits are included in the professional awareness of students (ibid.).

In the case of professional self-awareness, three theoretical approaches can be distinguished, which are often used in their conventional form. The term refers to:

- simple awareness – awareness of currently experienced aspects,
- reflective awareness – becoming aware of specific experiences,
- reflective-critical awareness – awareness of how experience is constructed in direct experience and awareness of itself (Kondrat, 1999).

Some authors (Garanina, Andronova, 2020; Özek, Ferraris, 2016; Lewis, 1991), perceive professional awareness as a kind of ability. It consists in the ability to become aware of one's personal and professional characteristics and to assess them in terms of the effectiveness of professional activities. The above components become the basis for self-regulation of behaviour and directing it towards further development and the achievement of professional goals. Among the components of professional awareness, one can distinguish reflection, attitude towards oneself, self-assessment and the ability to self-regulate (Garanina, Andronova, 2020, p. 456).

Attention is also drawn to the links between professional awareness and professional identity, suggesting that the former is an individual's self-awareness in relation to their profession and work (Kondrat, 1999). Hence, its components are distinguished at the cognitive, affective and behavioural substructure levels (Enns, Shapovalova, 2015).

Research in this area has been conducted by Viktoriia Azatian, Dolores Zavitrenko, Artem Zavitrenko, Iryna Baraniuk, Inna Krasnoshchok (2020, pp. 43–45), among others, who have identified the main vectors of professional awareness development that correspond to the same structural components:

- *cognitive* – relating to the acquisition of professional knowledge by students. Professional knowledge, which manifests itself in the form of professional ideas and concepts, characterises a specific professional activity and is essential for professional fulfilment. The cognitive vector enables the integration of professional knowledge, self-improvement, creativity, analysis of professional situations, reflection, and the ability to think critically and flexibly.
- *reflective* – covering the formation of a professional self-image and future professional self-assessment. The image of oneself as a future specialist manifests itself in the awareness of real possibilities and ways to achieve the desired position. Professional self-assessment manifests itself in the adequate assessment of one's own achievements, level of competence and style of action. By shaping the above elements, including the ability to adequately assess oneself and others, the vector helps to define the “professional ideal” and “professional reality”.

- *axiological* – relating to awareness of professional value.
- *motivational* – manifested in the development of lasting professional motivation, which at the stage of vocational education can manifest itself, for example, through professional internships or enabling the positive use of professional experience.
- *affective* – manifests itself in the development of appropriate professional emotions and feelings. It also includes the prevention of stress and emotional burnout. Development in this area manifests itself in the formation of ideas about emotions related to professional activities, supporting the understanding and management of one's own emotions, understanding the emotions of others, and designing relationships with other people.

Authors Margarita Shapovalova, Elena Enns, Elena Serdiukova and Rimma Zvereva (2020) distinguish the following components of professional self-awareness:

- *the cognitive component*, which includes the image of the professional “self” and knowledge of a given profession. This component helps a person assess their own abilities in relation to professional standards and identifies areas that require further work.
- *the affective component*, which concerns professional self-assessment and attitude towards the profession. This component translates into motivation for self-development and commitment to work.
- *behavioural component*, which includes motivation to act, self-regulation and pro-professional behaviour. It reflects the practical application of attitudes and knowledge in educational and professional activities.

The literature review indicates that professional self-awareness is a multidimensional construct encompassing cognitive, affective and behavioural elements. Various classifications proposed in previous studies show considerable convergence regarding these domains. In the present study, the conceptualisation proposed by Shapovalova et al. (2020), referring to cognitive, affective and behavioural components, constituted the main point of reference for the development of the research tool.

Based on the reviewed literature, the authors conceptualised professional self-awareness through three dimensions: cognitive (self-knowledge and self-insight), emotional-motivational (attitudes and emotions related to professional development) and behavioural (pro-professional activities).

2. Research in the context of university students

Research in the context of students' professional self-awareness was conducted as part of a collaboration between four partner universities: Ambis University in Prague (Czech Republic), Jan Długosz University in Czestochowa (Poland), Silesian University in Opava (Czech Republic), University of Presov (Slovak Republic), between November 2024 and April 2025.

The aim of this article is to present partial results of a study involving 134 students from the Silesian University in Opava and the University of Prešov. The research focused on these areas because of geographical, historical and educational similarities, alongside cultural differences that may influence professional self-awareness. As a pilot study aimed at laying the groundwork for the main study, it also serves as a basis for further exploration, including in Poland. Therefore, the findings should be interpreted as preliminary and exploratory rather than as a basis for far-reaching generalisations.

The study used a convenience sample of a non-probability nature. Participants were recruited during classes at the University of Silesia in Opava and at the University of Prešov. During scheduled classes, students were provided with a link to an online survey. Participation in the study was voluntary and anonymous, and participants were informed of this.

The main objective of the study was to identify and compare the declared level of professional self-awareness among students from the Czech Republic and the Slovak Republic. In terms of specific objectives, the study aimed to examine the level of differences in the results of professional self-awareness among students from the Czech Republic and the Slovak Republic, and to examine whether demographic variables differentiate the level of professional self-awareness of students from the Czech Republic and the Slovak Republic.

The subject of the study was the declared level of professional self-awareness of students. The literature offers various positions on the differences or similarities between descriptive and diagnostic research. The purpose of diagnostic research is to establish existing facts, leading to specific diagnoses that determine attempts to improve the system of interactions (Juszczuk, 2013, pp. 41-42). Descriptive research, on the other hand, contains a detailed description of the phenomena or facts under study, relating to the analysis of their structure or functioning mechanisms. The main purpose of descriptive research is therefore to systematically present the phenomenon being described. It also includes various types of research methods, such as surveys, correlation studies, qualitative studies and content analysis. Subtypes of descriptive research differ in terms of data analysis and collection procedures, rather than the availability of the data itself (Atmowardoyo, 2018, pp. 198-199). Ultimately, the authors decided to point to the descriptive nature of the study, due to its final outcome.

In order to achieve the research objectives, the main research question was formulated:

- 1. What is the level of professional self-awareness among Czech and Slovak students?

In order to deepen the analysis, the following specific research questions were formulated:

- 1.1. What differences exist in the level of professional self-awareness among students from the Czech Republic and students from the Slovak Republic?

- 1.2. What demographic characteristics differentiate the level of professional self-awareness?

The research used a diagnostic survey method, a questionnaire technique and a research tool in the form of a questionnaire. The original questionnaire was developed in Polish and subsequently translated into Czech and Slovak. To improve linguistic and conceptual equivalence, a back-translation procedure was then applied from Czech and Slovak into Polish. In addition, the wording of the items was discussed among the authors, who represented different language backgrounds. The original research tool consisted of 15 categorical statements relating to three dimensions of professional self-awareness (cognitive dimension, emotional-motivational dimension and behavioural dimension: pro-professional activities). Each of the three scales was related to 5 statements from the questionnaire. For each statement, respondents had the option of selecting one of the following answers: *strongly disagree, somewhat disagree, no opinion, somewhat agree, strongly agree*.

The cognitive scale (self-insight, self-knowledge) referred to the assessment of the degree of professional self-awareness in the context of personal resources (e.g. knowledge of one's own strengths and weaknesses, interests or predispositions). The scale therefore focuses on intrapersonal reflection in the area of education and career.

The emotional-motivational scale (personality traits) focused primarily on the emotional attitude of the individual towards their own educational and professional development. Among other things, it emphasises the subjective sense of readiness to enter the labour market, feelings related to the self-assessment of professional competences, belief in the possibility of success, as well as emotions accompanying social comparisons and uncertainty about the professional future. This scale therefore takes into account the emotional aspects of professional self-assessment.

The behavioural scale (pro-professional activities) referred to taking specific actions for educational and professional development (e.g. actively seeking information, planning alternatives). It takes into account specific activities related to the development of competences, exploration of career paths or building precise and alternative plans. The scale therefore focuses on the level of agency, subjectivity and practical involvement in one's own career development.

The research tool also included demographic questions. Cronbach's alpha coefficient was analysed to assess the internal consistency of the tool. The result was $\alpha = 0.81$, which may indicate good reliability of the tool (George, Mallery, 2016, p. 240).

A total of 134 responses were obtained from students in the Czech Republic (67) and the Slovak Republic (67). The respondents were students of pedagogy. The students' ages ranged from 19 to 62 in the Czech group and from 19 to 61 in the Slovak group. Table 1 presents the demographic characteristics of both groups.

Table 1. Demographic data summary

The table presents demographic data for students from the Czech Republic, the Slovak Republic and the total sample. The main columns show group size by country and overall distribution, with values reported as frequencies and percentages for gender, place of residence, education level and form of study.

	Czech Republic (N=67)	Slovak Republic (N=67)	Total (N=134)
Declared gender			
Female	58 (86.57%)	62 (92.5%)	120 (89.55%)
Male	9 (13.47%)	5 (7.5%)	14 (10.45%)
Declared place of residence			
Rural area	26 (38.81%)	30 (44.8%)	56 (41.79%)
Town $\leq 100,000$	32 (47.76%)	29 (43.3%)	61 (45.52%)
City $> 100,000$	19 (13.43%)	8 (11.9%)	27 (20.15%)
Declared education attained			
Secondary school education	36 (53.73%)	55 (82.1%)	91 (67.91%)
Bachelor study program	14 (20.90%)	3 (4.5%)	17 (12.69%)
Master study program	14 (20.90%)	6 (9.0%)	20 (14.93%)
Doctor study program	3 (4.48%)	3 (4.5%)	6 (4.48%)
Declared form of study			
Full-time	30 (44.78%)	59 (88.0%)	89 (66.42%)
Part-time	37 (55.22%)	8 (12.0%)	45 (33.58%)

Source: own research results.

Although the groups were equal in size, they were not fully equivalent in terms of selected demographic characteristics, particularly form of study and declared education level. Therefore, differences or similarities observed between countries should be interpreted with caution. The wide age range may also indicate heterogeneity within the group in terms of life experiences.

3. Analysis of research results

An analysis of descriptive statistics showed that the average level of professional self-awareness was similar in both groups: $M = 54.2$ ($SD = 7.73$) in the Slovak group and $M = 55.3$ ($SD = 8.97$) in the Czech group, as shown in Table 2. The results obtained may indicate that the respondents have a relatively high level of professional self-awareness.

Table 2. Descriptive statistics – Professional self-awareness

The table presents descriptive statistics for the overall professional self-awareness score in the Czech and Slovak groups. The main rows include N, mean, median, standard deviation, minimum and maximum score values, reported in scale points; the results indicate similar average levels in both groups.

	Slovak Republic	Czech Republic
N	67	67
Average	54.2	55.3
Median	54	56
Standard deviation	7.73	9.11
Minimum	37	28
Maximum	71	72

Source: own research results.

It was also established that the distribution of results in the Slovak group was close to normal (Shapiro–Wilk test: $W = 0.983$; $p = 0.482$). Similarly, in the Czech group (Shapiro–Wilk test: $W = 0.969$; $p = 0.097$). The assumption of equal variances was met (Levene's $F = 1.929$, $p = 0.167$). Therefore, the parametric Student's t-test will be used for further comparative analyses.

It was also decided to analyse the descriptive statistics of individual subscales, as presented in Table 3. The following components of professional self-awareness were taken into account: cognitive, emotional-motivational and behavioural. The results of the study were similar in both groups.

Table 3. Descriptive statistics – scales of professional self-awareness

The table presents descriptive statistics for the cognitive, emotional-motivational and behavioural scales of professional self-awareness in Czech and Slovak students. The values are reported in scale points and include mean, median, standard deviation, minimum and maximum scores; the results show broadly similar profiles across both national groups.

	Slovak Republic (N=67)			Czech Republic (N=67)		
	Cognitive scale	Emotional-motivational scale	Behavioural Scale	Cognitive Scale	Emotional-Motivational Scale	Behavioural Scale
Average	18.40	18.46	17.33	18.79	18.61	17.94
Median	19	19	17	19	19	19
Standard deviation	2.55	3.25	3.94	2.5	3.81	4.1
Minimum	11	10	5	10	8	9
Maximum	24	25	25	24	25	25

Source: own research results.

Due to the approximation of the distributions to normality and the equality of variances, a parametric Student's t-test was used to compare *the overall level of declared professional self-awareness*. The test results did not show any statistically

significant differences between the groups of Czech and Slovak students ($t = 0.79$; $p = 0.433$).

In terms of the *cognitive scale*, the average score obtained by Slovak students was 18.4 ($SD = 2.55$). The Czech group scored slightly higher – 18.7 ($SD = 2.50$). For the cognitive subscale, the distributions significantly deviated from normality in both groups (Slovakia: $W = 0.934$, $p = 0.0015$; Czech Republic: $W = 0.953$, $p = 0.0125$), although the homogeneity of variances assumption was satisfied (Levene's $F = 0.004$, $p = 0.951$). Due to the non-normality of the scale distribution, the non-parametric Mann–Whitney U test was used, which also did not show any statistically significant differences ($U = 2371.5$; $p = 0.569$). The results may indicate that, regardless of systemic, cultural or national differences, students demonstrate a similar, high level of professional self-awareness in the context of self-awareness of interests, traits, values or predispositions. However, it should be noted that both countries share certain similar values.

No significant differences were found on the emotional-motivational scale. The mean score was 18.46 ($SD = 3.25$) in the Slovak group and 18.61 ($SD = 3.81$) in the Czech group. The Slovak group showed no significant deviation from normality ($W = 0.976$, $p = 0.226$), while the Czech group obtained a borderline but still non-significant result ($W = 0.964$, $p = 0.051$). As the variances were homogeneous (Levene's $F = 0.700$, $p = 0.404$), the comparison was performed using Student's t-test. The analysis did not reveal statistically significant differences between the groups ($t = -0.24$, $p = 0.808$). This suggests that students from both countries present a similarly high level of emotional professional self-awareness. Regardless of education systems or local conditions, young people may adopt comparable educational and professional values, influenced by growing up in an information society, global labour market expansion and increasing pressure for flexibility and independence in career building.

On the *behavioural scale (pro-professional activities)*, Czech students scored slightly higher ($M = 18.0$; $SD = 4.10$) than Slovak students ($M = 17.3$; $SD = 3.94$), which may indicate a marginally greater activity level among the Czech group. Both distributions were consistent with normality assumptions (Slovakia: $W = 0.974$, $p = 0.174$; Czech Republic: $W = 0.966$, $p = 0.062$), and the assumption of equal variances was also met (Levene's $F = 0.441$, $p = 0.508$). Therefore, Student's t-test was applied; however, it did not confirm statistically significant differences ($t = 0.88$; $p = 0.380$). Thus, it cannot be conclusively stated that Czech students are more engaged in actions preparing them for future careers. Overall, the findings suggest that students from both countries demonstrate a similarly high level of motivation and awareness of active involvement in career building, perhaps also supported by comparable availability of professional development tools.

3.1. Professional self-awareness and demographic variables

To address the second research problem, the relationship between general professional self-awareness and demographic variables was analysed. Student's t-test was applied for dichotomous variables (gender, form of study), one-way ANOVA for categorical variables (place of residence, education level), and Spearman's rank correlation for age. The results are shown in Table 4.

Table 4. Relationship between demographic variables and the level of professional self-awareness of all respondents

The table presents the relationships between demographic variables and the overall level of professional self-awareness in the total sample. The columns show the variable, statistical test, test value and p value; statistically significant results are reported for form of study, education, place of residence and age.

Variable	Test	Test value	<i>p</i>
Declared gender	Student's t-test	$T = 1.37$	0.173
Declared form of study	Student's t-test	$t = -5.09$	<0.001
Declared education	One-way analysis of variance (ANOVA)	$F = 3.16$	0.027
Declared place of residence	One-way analysis of variance (ANOVA)	$F = 4.85$	0.009
Declared age	Spearman's rank correlation	$\rho = 0.379$	<0.001

Source: own research results.

The data analysis shows that *the form of study* differentiates the level of professional self-awareness, with full-time students scoring higher than part-time students ($t = -5.09$, $p < 0.001$). Statistically significant differences were also found in terms of *the respondents' place of residence* ($p = 0.009$), but the current analyses are not able to determine the direction of the relationship. The analysis of variance showed a significant relationship between the level of awareness of students, depending on their level of education ($p = 0.027$). Spearman's rank test also showed a moderate positive relationship between the age of respondents and their level of professional awareness ($\rho = 0.38$, $p < 0.001$), which means that older respondents scored higher on professional self-awareness. With regard to gender, no statistically significant differences were found in the level of professional self-awareness (1.37, $p = 0.173$). The above results may indicate that the variables differentiating the level of professional self-awareness are: age, level of education, form of study and place of residence.

4. Summary

The article presents the results of quantitative research on the level of professional self-awareness among students from the Czech Republic and the Slovak Republic.

The construct was analysed through three components: cognitive, emotional-motivational and behavioural. The results suggest that students from both countries display a similar, relatively high level of overall professional self-awareness, which may indicate its independence from cultural or institutional conditions. Both countries share a comparable history of social and educational transformation, and experience similar global changes, such as digitalisation, internationalisation of education and labour market trends.

Analyses showed that demographic variables differentiate the level of declared self-awareness. Full-time students achieved higher results, likely due to more frequent academic engagement. Differences also appeared across education levels, suggesting that advanced studies promote professional maturity and reflective thinking. Age was positively correlated with self-awareness, which may result from both psychological maturation and greater professional experience, helping individuals better understand their capabilities, limitations and labour market dynamics.

The findings highlight the importance of educational environments that foster reflection and self-knowledge alongside professional information. Career planning should integrate not only instrumental knowledge but also awareness of one's abilities, predispositions and preferences. Educators and counsellors should support students in becoming reflective, proactive and responsible participants in a changing labour market.

The study had a pilot character. Therefore, the results should be treated as preliminary. The study also involved a relatively small sample, which does not allow causal conclusions. An important interpretative limitation may be the substantial age heterogeneity of the sample. Since age was positively associated with professional self-awareness, the observed results may partly reflect differences in life and professional experience rather than only educational or national background. Future research should include larger groups and combine quantitative and qualitative methods. Longitudinal studies would help capture the dynamics of professional self-awareness development over time.

Statements

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