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Psychosocial Social Skills of Academic Teachers in the Context of Professional Training

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Abstract

This article reports a fragment of studies into the psychosocial competencies of academic teachers at technical universities, which were carried out in 2019–2021 using a diagnostics survey done among the academic staff of the Silesian University of Technology. One of its aims was the self-assessment of those competencies that the respondents regarded as scarce, insufficient and incomplete, as these should be deemed a priority in the professional training of the academic staff. The results of those analyses have been presented here.

Keywords: psychosocial skills, academic teacher

Introduction

The dynamically changing reality, which creates new human life and work conditions, requires acquiring and training increasingly more new skills. Meeting this requirement has a special place in the profession of the academic teacher, particularly in relation to the so-called teacher's competencies, also known as psychosocial or soft skills. Outside the necessity to optimise the selection criteria for the profession, this necessitates changes in the professional training programmes for teachers.

Psychosocial Competencies

Psychosocial competencies are most frequently defined as a set of human predispositions and skills, which include emotional intelligence, assertiveness, constructive communication, conflict resolution skills, proper self-esteem and dealing with stressful situations (Argyle, 2002; Woynarowska, 2002; after: Romanowska-Tołoczko et al., 2018, p. 63). It has been established that they include the interpersonal and social abilities required for dealing with and promoting positive interpersonal relations, interactions, personal and interpersonal development or social engagement (Azim et al., 2010; Gibb, 2014; Kechagias, 2011; after: Hatala et al., 2017, p. 44).

The psychosocial competencies manifest in the skills of cooperation, teamwork and effective communication, which often go beyond the performance of the assigned professional tasks, allowing the individual to achieve harmony with others and – combined with the hard skills – achieve the set professional goals (Alcivar et al., 2020, after: Mozgalova et al., 2021).

To a high degree, the soft skills (being the basis for effective professional activities and the shaping of vocational professionalism – Hayitov, 2020, p. 103) create the so-called individual personal profile, which is the core interest of the employer (Mozgalova & Liva, 2018).

As expected of university teachers, these skills should be regularly developed and trained (Higher Education and Science Law 2018, Articles 115 and 343). Because becoming a competent teacher also means supporting the employer in this area. The forms of in-service training offered by them should make the academic teacher reflect on his competencies, allow him to diagnose the level he has reached and define further steps on the way to mastering them in everyday teaching practice.

Methodological Assumptions of the Own Research

In our attempt to diagnose the psychosocial competencies possessed by academic teachers of a technical university, we found it reasonable to diagnose only those competencies which the respondents in their self-assessment regarded as scarce, insufficient and incomplete as these should be deemed a priority in the process of professional training of the academic staff.

The studies of 2019–2021 enrolled 141 academy teachers of the Silesian University of Technology. Men accounted for 44.7% of the study group (n=63) and

women for 55.3% (n=78). The study results were as follows: 2019: n=32; 2020: n=47; 2021: n=62. In addition, the respondents were representatives of two academic disciplines relating to the humanities and the sciences. Consistent with the statements of the academicians surveyed, all respondents indicated that they represented a group with higher education. Among the respondents, the largest group was experienced university teachers indicating a period of employment of more than 15 years (43%). The second-largest group was those with 10 years of experience (37%), and 20% of respondents were teachers whose tenure ranged from 1 to 5 years. In addition, the age of the respondents ranged from 30 to 58 years, where the largest number of respondents qualified in the range of 41 to 50 years, accounting for 42.1% of the total respondents.

The studies sought answers to the following questions:

- What is the relationship between setting and achieving professional goals and the sex of the respondents?
- To what extent does the ability to plan your work correlate with your level of work activity?
- To what degree does the declared level of achievement of professional goals correlate with the skill of teamwork?
- What is the relationship between the skill level of dealing with professional failures and motivation for professional activity?

The research used the method of diagnostic survey and within it the technique of questionnaire, interview and analysis of documents concerning the respondents' participation in training raising the professional competencies of teaching staff. The studies used the diagnostic survey method, which included a questionnaire. The first part of the studies was carried out via the traditional paper form of data collection. The other was via its electronic counterpart due to the COVID-19 pandemic.

The results were subjected to a detailed statistical analysis with the JASP 0.15 software. The obtained results were subjected to descriptive statistical analysis, analysis of differences between groups through the Mann–Whitney *U* test and analysis of correlation through Spearman's rank correlation coefficient.

Please note, however, that they carried out an analysis that showed that the results in the female and male groups were not in the normal distribution. Therefore, the Mann–Whitney *U* test was applied to the answers to research question 1 as an alternative to Student's *t*-test for independent groups. Using Spearman's rank correlation coefficient calculation, research questions 2–5 were subjected to correlation analysis. As there were no differences between women and men regarding the correlated variables, a correlation analysis was carried out for the entire group.

Own Research Results

The profession of a teacher covers not only the transmission of knowledge, mindsets, emotional reactions and habits (Becerem Ozdemir et al., 2020, p. 154) – the communication process, work planning and professional standards of teachers are an important model for students. Those factors are co-decisive in the quality of the professional goals achieved by teachers.

The female and male groups were compared in terms of the level of the skill of setting and achieving professional goals through the Mann–Whitney U test to determine the relationship between setting and achieving professional goals and the sex of the respondents. The analysis showed no differences between women and men: $W = 2349.00$; $p = 0.743$; $rbs = -0.03^1$. It means that no correlation was found between the sex and the skill level for setting and achieving professional goals. Therefore, it can be assumed that sex is not a decisive factor in the setting of professional goals, which shows that we are dealing with the blurring of differences between women and men pursuing the profession of the academic teacher in terms of the completion of both teaching and scientific tasks.

However, there is a significant correlation between the setting of professional goals on the one hand and the professional motivation and work planning on the other. For this reason, the teacher's work model should be adequate if the possessed skills are supported by knowledge and motivation. In internal motivation for expanding one's abilities, imposing higher requirements on oneself is not a burden for educators. A weak stimulus for improving one's abilities may hinder meeting professional skills requirements (Hakim, 2009, p. 254). It is particularly important in institutions (Darmiati et al., 2020, p. 33) shaping the young human being, including higher education institutions. Therefore, from this perspective, it was considered reasonable to investigate the relationship between the work planning skills possessed by university teachers and the respondents' declared level of professional activity. The results obtained (based on Spearman's coefficient) showed a relationship between the level of work planning skills and the level of professional activity. The analysis showed a relationship between the level of assertiveness and the declared level of professional activity: $\rho = 0.39$; $p < 0.001$. The relationship between variables of moderate strength and a higher level of work planning skills was correlated with a higher level of work activity.

¹ Rank-biserial coefficient of correlation (*rbs*) was calculated as a measure of the effect size for the Mann–Whitney U test.

When diagnosing the psychosocial competencies of the teacher, one cannot forget about the skill of teamwork, particularly significant for development in the profession at hand. Collaboration among team members is a necessary factor in ensuring high-quality academic work. For this reason, we decided to determine to what degree does the declared level of achievement of professional goals correlate with the skill of teamwork?

The obtained results were checked with Spearman's rank correlation coefficient. Their detailed analysis showed that there is no correlation between the variables: $\rho = 0.29$; $p < 0.001$. The link was weak, and a higher level of achievement of professional goals was correlated with a higher level of teamwork. Testing those competencies is immensely important from the standpoint of the dynamic of academic teachers' teaching and scientific activity. More often than not, teamwork makes it easier to achieve professional goals in such a specific type of profession. Prices of current changes combined with the interdependent partnership of team members generate both its effectiveness and quality, and it is an effective structure for the professional development of teachers.

The work environment of that social group does not cover only a spectacular scientific success but also participation in conferences, speeches and seminars, which are frequently preceded by failures. It is the unfavourable situations of teachers that take up on extremely rare occasions, which makes them a sphere of hidden formation about the actual nature of the career path of many of them. The most problematic fact in this situation is the search for an effective motivational process imparting a sense of meaning and conviction of one's own professional effectiveness. Taking this assumption as the point of departure, the correlation between the skill level of dealing with professional failures of academic teachers and their motivation for professional activity was verified and checked using Spearman's rank correlation coefficient. The analysis showed a correlation between the variables: $\rho = 0.36$; $p < 0.001$. The link was of moderate strength, and a higher level of the skill of dealing with professional failures was correlated with a higher level of motivation for professional activity.

Bearing in mind the results obtained in research questions 1 and 4, a regression analysis was carried out to check whether the level of the skill of planning professional work and the level of the skill of dealing with professional failures could be predictors of motivation for professional activity. The results of the regression analysis have been presented in Table 1.

The obtained model fit the data well: $F(2, 137) = 18.21$; $p < 0.001$. It allowed the prediction of a 20% variability of the results in the level of motivation for professional activity. In that model, both the level of the skill of planning professional

Table 1. Predictors for motivation for professional activity – linear regression analysis

	Slopes			Significance of predictors	
	<i>b</i>	<i>SE (b)</i>	beta	<i>t</i>	<i>p</i>
Free term	2.49	0.76		3.29	0.001
Level of skill in professional work planning	0.42	0.09	0.36	4.65	<0.001
Level of skill in dealing with failures	0.22	0.08	0.22	2.78	0.006

Annotations. *b* – unstandardised slope of regression, *SE (b)* – standard error for *b*; beta – standardised slope of regression; *t* – t-statistic for the test of significance of the predictor; *p* – level of the test probability for the t-statistic.

work (beta = 0.36; $p < 0.001$) and the skill of dealing with failures (beta = 0.22; $p = 0.006$) were positive predictors of the motivation and their higher level allowed to predict a higher level of motivation for professional activity.

Teachers' motivation and professional activity, frequently above-average commitment to their professional duties, pertain first and foremost to the strive for teaching and scientific successes satisfying for them. Teachers' motivation and work planning are positive predictors of future achievement despite occasional failures, thanks to the sense of one's effectiveness (E. M. Skaalvik & S. Skaalvik, 2014; after: Skaalvik et al., 2016).

According to Romanowska-Tołoczko i Kołodziej (2018, p. 63), the psychosocial competencies of teachers are a set of numerous skills, but "they do not have a hierarchical structure, they are all equal and their interaction is necessary as single skills are not enough to deal with the actual social situation, which is usually complex. To be able to deal with different situations competent manner requires a combination of intra- and interpersonal skills, which are dependent on the personality traits of the given human being and the nature of the social training they have undergone during their life". However, from the standpoint of task-based situations, particularly situations regarding work planning strategies, this process shows the multidimensionality of tasks, which pose great methodological challenges. The challenges arise from a wide variety of majors, programmes of studies and higher education institutions (Zlatkin-Troischanskaia et al., 2015), which would not be complete without psychosocial competencies. Therefore, the studies were also supplemented by an analysis of the level of psychosocial competencies and identification of correlation with the level of the skill of planning professional work.

It must be stressed that the correlation between the level of the psychosocial skills and the level of the skill of planning professional work was checked using Spearman's rank correlation coefficient. The analysis of the obtained results showed a correlation between the variables: $\rho = 0.27$; $p = 0.001$. The correlation was weak, and a higher level of psychosocial skills was correlated with a higher level of planning professional work.

As can be seen, the psychosocial competencies today are an important portion of the professional skills of the contemporary academic teacher. Their achievement guarantees the professional success of the entire team and personal achievements in their teaching and scientific work. They are also a product of numerous directions of the teacher's activity and make it easier for them to prepare for performing numerous functions requiring high openness and change in the work environment. They facilitate development and constructive dealing with difficult situations and understanding the factors affecting the decision-making regarding important professional aspects.

Summary

There is numerous scientific evidence showing that the psychosocial competencies of academic teachers are crucial in their professional work. In addition, they underlie the process of professional training, not only in the young adepts of science: Kumar and Hsiao aptly emphasise that engineers learn soft skills in quite a difficult manner, which in turn supports the theory that engineers constantly enter the labour market with technical qualifications but without sufficient soft skills (Kumar et al., 2007, p. 18). Moreover, Colman and Willmot (2016) highlight that soft skills are difficult to associate, count, observe and teach; they tend to be subjective and perceived as "undignified" by some technocrats. At the same time, those skills supplement supporting and implementing the hard skills.

Research has underscored that the teacher's professionalism in professional training is mostly associated with in-depth specialised knowledge and teaching-method agency. Mastering specific movements and operations and operating machines and devices frequently remain the chief objective of professional training in various specialities. When preparing for work, it is often the case (particularly at technical universities) That attitudes, views, professional interests, conceptual and creative thinking and relation to the world of values, culture, another human being, oneself, and the world of nature are important as well (Kutrowska, 2008, p. 49). For this reason, the process of preparation and training of teachers requires

change. The work of Zlatkin-Troischanskaia et al. (2015) seems suggestive here as they claim that the existing studies and assessment practices in different countries provide hints on how to model skills based on the curricular and professional requirements, but also in terms of assessment assignment and comprehensive validation.

Therefore, the obtained results allow for formulating the following conclusions:

- Sex does not differentiate the quality of performance of professional tasks;
- There is a correlation between the level of the skill of planning one's work declared by the respondents and the assessment of motivation for professional activity (a higher level of the skill of planning translates into a higher motivation for work);
- A higher level of achievement of professional goals of teachers correlated with a higher level of the skill of teamwork;
- There is a correlation between the skill of dealing with professional failures and the level of the psychosocial competencies (a higher level of the psychosocial competencies correlated with a high level of the skills of dealing with professional failures); promotion needs to be carried out to enrich training offer with such workshops, lectures etc. which make academic teachers keep thinking about their academic practice and motivate them to train the already possessed and acquire new psychosocial skills.

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