STUDENT´S KEY COMPETENCIES REQUIRED FOR APPLICABILITY IN PRACTICE – STUDENTS' POINT OF VIEW

Janka Vydrová

Abstract: *The competence of university students is a key issue. Due to the situation on the labour market, it is necessary to respond already in the university education of future young professionals. The aim of each educational institution is to have high-quality graduates who are on the job market and able to adapt to the current situation. The aim of the paper is to identify a new approach in the education of young professionals based on identification of key competencies. In total, 586 questionnaires were evaluated. The research began in February 2017. The first phase was conducted through controlled interviews with 19 student groups. In total, there were 148 respondents in qualitative research. The quantitative research followed in April 2017 and ended in January 2018. The key competences identified were ranked according to their importance from the student's point of view, and in the article the author dealt with those that the respondents identified as most important for the preparation of their next vocation. These are communication skills, knowledge of foreign languages, creativity, responsibility, teamwork, flexibility, punctuality and work under stress. Three research hypotheses have been identified. Hypotheses were verified using the Two-sample t-Test statistic for equal means.*

Keywords: *Key Competencies, Universities, Education, Globalization, Young Professionals, Self-education, Self-reflection.*

JEL Classification: *J59, J89, M12, M20, M55.*

Introduction

In today's globalized and constantly evolving labour market, demands are growing for young professionals who are constantly preparing for their next vocation. These global changes are especially of an economic nature, and young experts have to respond to them quickly and flexibly. This is why new requirements for the model and quality of graduates are being created, as are the new approaches to efficiency and consequently also the competitiveness of both young professionals and those providing education. Universities must therefore flexibly respond to these changes and must therefore prepare young professionals who are able to adapt to the labour market and are ready for change, especially in the sphere of self-education. An important fact will be not only the educational process itself, but it is just as important to be education throughout life. Therefore, young professionals must be trained in modern education, i.e. to acquire knowledge but also to develop practical skills and key competencies.

In a dynamic global environment, the ability of young professionals to strategically reflect their careers and assess and develop key skills, competences and competencies, a necessary part of the prepared young practitioner. These factors will also be crucial for success in further career growth. Changes in work bring the need for modernizing knowledge, skills and competencies at the workplace. The main aim of this article is to identify a new approach in the education of young professionals based on

identification of key competencies. Recent studies suggest that a growing number of universities are embracing the notion that sustainability should and can be integrated into the university support system for entrepreneurship, or that sustainability activities should be implemented and promoted with entrepreneurial spirit (Fichter and Tiemann, 2018). Students are the future middle class members, people with higher education, the ones who will identify consumer trends, and those who will become the entrepreneurship accelerator (Głowacka-Toba, 2015). The expected results of students' core professional competences' formation in the educational practice of higher education institutions are accumulated in the complex of pedagogical conditions providing innovative update of the educational process, among which the most productive and appropriate condition for students are didactic objectives as an educational construct of core competencies' (Fan and coll., 2015) integrity in learning and professional activity (Zimnaya, 2003).

1 Statement of a problem

We moved from a human-based society to intellectual capital. Workers can no longer expect to work for the same company throughout their lives; employees need to constantly update and their skills constantly demonstrate their ability to add value to the organization (Feldman, 2010). Bejtkovský (2015) says that the aim of the philosophy of Age Management is efficient and targeted work with all age groups of employees to ensure profit, competitiveness and prosperity of institution. This is precisely the moment when we have to respond to university education and to prepare future young workers for differences. At present, experts are inclined to evaluate individual personality folk. This assessment includes both the assessment of hard skills and more and more of the assessment of soft skills. To this view, Hurrell (2015), who says that soft (e.g. interpersonal and social) skills are receiving ever more attention with employers frequently reporting that employees lack these skills.

There has been much debate in recent years, across many developed economies, concerning skills deficits. Employers report problems with filling vacancies because applicants lack the required skills (skills shortages) and/or that current workers lack proficiency in their jobs (skills gaps). These problems are, however, not confined to hard/technical skills and digital skills (Shala and Grajcevci, 2018) and deficiencies are frequently reported in 'soft' interpersonal and social skills, also called 'non-cognitive' skills (Handel, 2003). The question arises whether the gaps in soft skills that employers identify are primarily attributable to employees. The gaps in soft skills that manifest in the organization may reflect poor recruitment, selection and training practices. Another possible explanation, however, is that negative responses to quality of work can lead to impersonal individuals taking soft skills. Because soft skills are key to emotion-dependent work processes (Vincent, 2011), they may be particularly prone to leave due to negative responses to the employer. Examples of soft skills include oral communication, team working, customer handling and self-presentation (Hurrell et al., 2013). Nevertheless, despite the fact that universities are faced with increasing pressure to make use of their resources and consider sustainable development as part of their operations, many are still reluctant to revise their business models and incorporate the necessary changes (Ávila and coll, 2017). Instructional problems not only require an adequate didactic reduction of facts, but also an increase in the self-complexity of the students (Mahren and coll., 2017). Competencies have

become the leading construct in many different human resource practices, such as recruitment and selection, career development, performance management, and the management of change (Bartram, 2005; Hollenbeck, McCall, & Silzer, 2006). Competency based approach has been extended at the beginning of the 21st century in connection with discussions about problems and ways of modernization of the education. Innovative education–is not only a new way of teaching, but also a new way of thinking. This education is focuses not on the transfer of knowledge, which constantly outdates, but on mastering the core competences (Lee, 2018) that allow then to acquire knowledge on their own (Makulova, 2015). Asimov and coll. (2009) says that competence is a combination of knowledge, skills, abilities formed in the process of learning of a particular discipline, as well as the ability to perform any activity on the basis of the acquired knowledge, skills, abilities. When selecting candidates for managerial positions in SMEs operating in the Czech Republic equal emphasis is put on the general knowledge as the social maturity. When selecting candidates for managerial positions in SMEs operating in the Czech Republic does not put equal emphasis on their practical skills as on their social maturity (Taraba, 2014).

Learning from the universities' experiences of the students' key professional competencies' development shows that this process allows educational institutions to modernize training objectives and orientations from knowledge reproducing to their use and organization; to remove the dictatorship from the labour object (subject matter), but not to ignore it; to put in its base a strategy for flexibility increasing in favour of employment opportunities' and tasks' solving increasing; to put at the forefront the interdisciplinary and integrated requirements and expectations of the educational process; to integrate educational goals with situations of applicability (using) in the world of labour; to direct the activities on the endless diversity of professional and life situations (Zeer, 2000).

Summing up the experience of scientists, the model of professional competence can be defined as cognitive competences, functional competence (skills), personal competences (behavioural competences), ethical competence and meta-competences refer to the ability to cope with uncertainty, as well as with the teachings and criticism (Makulova, 2015). Competency is not the behaviour or performance itself, but the repertoire of capabilities, activities, processes and response available that enable a range of work demands to be met more effectively by some people than by others' (Kurz & Bartram, 2002). In their opinion, the cluster of characteristics that defines a competency can vary from extensive to limited depending on the competency. Besides cognitive ability there are other constructs that appear to have incremental validity in the prediction of work-related behaviours. The Big Five personality traits (Barrick and Mount, 1991) have proven to be related to work-related behaviours such as job performance (Thoresen, Bradley, Bliese, & Thoresen, 2004). The Big Five personality traits to explain variance in the competency dimensions over and above measures of verbal and abstract reasoning. In other words, in assessing competencies related to the Thinking, Feeling, and Power dimensions, it is expected psychologists not only to rely on scores of applicants on measures of verbal and abstract reasoning, but also on scores of applicants on measures of personality. Semeijn (2007) deals with the competencies in the labour market for university graduates. The main objective of the research was to identify specific and general competencies and their relationship and dependence between the educational program and the labour market. Multiple schools

and institutions, both within the business field and outside, require their students and/or employees to complete self-assessments and to develop professional development plans (Gerken, Beausaert, & Segers, 2016). In addition, some schools have dedicated courses where students create such plans through integrative tools, such as E-portfolio (Peeters & Vaidya, 2016; Vouchilas & George, 2016). Most leadership classes in Master of Business Administration programs include leadership theories, concepts of leadership and management, and to varying degrees, student learning of some managerial skills; however, many of these classes do not provide the needed focus on the development of essential skills, such as self-reflection and self-awareness (Hobson and coll., 2014). As part of efforts to respond to the changing global economy, the Australian government has undertaken two major policy-drives related to school curricula: "from knowing things to being able to do things" and "from local State curricula to a common national curriculum" (Yates and Collins 2008). In particular, most of the new curricula have focused on developing knowledge and skills outside the boundary of the subject matter, such as "essential learning," "new basics," and "capabilities." Tasmania, for example, has listed essential learning under five headings: Thinking, Communication, Personal Future, Social Responsibility, and World Future (Yates and Collins 2008). Increased workers' control of the learning process makes competence development more stimulating, is likely to simplify the work and reduces (learning-related) stress. It is therefore important that learning at work allows employees to control their learning and also allows time for the process of learning and reflection (Paulsson, 2005).

Leadership courses are important components of all business program curricula, whether emphasis is on management, finance, accounting, marketing, or another functional area. Regardless of the major, graduating business students will eventually be placed in situations where their success will be dependent on their application of leadership skills and their ability to manage people and resources effectively (Rubens and coll., 2018).

2 Methods

This article deals with the analysis and statistical evaluation of the key competencies of students that are needed during the course of study for the pursuit of another professional vocation. This research is done from the point of view of students. A sample of students was taken at two faculties of Tomas Bata and Zlin University, at the Faculty of Management and Economics and the Faculty of Humanities. The reason for choosing these two faculties was a common element, namely the teaching of Management I as a key subject in their graduate profile.

Three hypotheses have been defined:

$H1_0$: According to respondents participating in the sample, the average perception of key competencies for students is the same for men and women.

$H1_0$: $\mu1 - \mu2 = 0$

$H1_A$: According to respondents participating in the sample, the average perception of key competencies for students is different for men and women.

$H1_A$: $\mu1 - \mu2 \neq 0$

$H2_0$: According to respondents participating in the sample, the average perception of key competencies for each faculty is the same.

$H2_0$: $\mu3 - \mu4 = 0$

$H2_0$: According to respondents participating in the sample, the average perception of key competencies for individual faculties differs.

$H2_A$: $\mu3 - \mu4 \neq 0$

$H3_0$: According to respondents participating in the sample, the average perception of the key competences of students for the year of study is the same.

$H3_0$: $\mu5 - \mu6 = 0$

$H3_0$: According to respondents participating in the sample, the average perception of key competencies of students for the year of study is different.

$H3_A$: $\mu5 - \mu6 \neq 0$

For this, the Two-sample t-Test for equal means was used.

The formula for the pooled estimator of σ2 is

$$S_p^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2} \qquad (1)$$

Where s_1 and s_2 are the standard deviations of the two samples of respondents (men and women, Faculty of Management and Economics and Faculty of Humanities, first and third year of study) and n_1 and n_2 are the sizes of the two samples of respondents.

The formula for comparing the means of two populations using pooled variance is

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \qquad (2)$$

where equation and equation are the means of the two samples, $sp2$ is the pooled variance, and n_1 and n_2 are the sizes of the two samples. The number of degrees of freedom for the problem is

$df = n_1 + n_2 - 2$

In order to meet the main goal of the research, qualitative and quantitative marketing research was carried out. Qualitative research was conducted during February 2017 through controlled interviews with students of the first year. Their aim was to identify key skills that are essential for qualitative growth and employment in the labour market. There were 19 groups of students with a total of 148 respondents. Based on qualitative research data, a questionnaire was formulated. The questionnaires were distributed both electronically and in paper form to students of the Faculty of Management and Economics and the Faculty of Humanities in the first and third year of study. The reason for choosing is to track the author's research on progress in perceptions. The pre-test of the questionnaire was carried out on a sample of 20 respondents and was implemented in March 2017, based on the evaluation of the results, the main research was carried out in the months of April 2017 to January 2018. Scaling was done using the five-step Likert scale, where 1 was the maximum rating (importance) and 5 was the minimum rating (importance) from student´s point of view. The questions were based on the results of qualitative research, and included in

particular the key competences identified by the participants as key. The results of the questionnaires served to test the hypotheses.

The total number of respondents was 586, with 384 respondents at the Faculty of Management and Economics, 202 respondents at the Faculty of Humanities. From the questionnaires received, 12 questionnaires had to be excluded because of the incompleteness of the data. The statistical distribution of the respondents is shown in Tab. 1.

Tab. 1: Respondents statistical information

Faculty	Number of respondents	Year of Study/Gender of respondents	Number of respondents
Faculty of Management and Economics	384	First	313
		Third	273
Faculty of Humanities	202	Female	441
		Male	145

Source: (own source)

Of the total, 441 women, 145 men, were interviewed. According to the year of study, in the first year there were 313 students, in the third year there were 273 students.

3 Problem solving

The main aim of the article is to identify a new approach in the education of young professionals based on the identification of key competencies. Eight key competences identified by students as the most important for the development of their educational goals and subsequent entry into employment were identified. These eight competencies are communication skills, knowledge of foreign languages, creativity, responsibility, teamwork, flexibility, punctuality and work under stress. The author of the article will examine the dependence between these factors and gender (male, female), studied faculty (Faculty of Management and Economics and Faculty of Humanities) and year of study (first and third year). The aim is to find out which factors are dependent and which, on the contrary, are not dependent on the above variables.

As mentioned above, the determination of differences in perception of men and women was made by the Two-sample t-Test for equal means, see Tab. 2.

Tab. 2: Two-Sample t-Test for equal means

	t-test for Equality of Means						
				Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
	t	df	p-value			Lower	Upper
Knowledge of foreign languages	-,045	584	,964	-,005	,109	-,219	,209
Communication skills	1,192	584	,234	,134	,113	-,087	,355
Creativity	1,077	584	,282	,097	,090	-,080	,275
Responsibility	1,870	584	,062	,212	,113	-,011	,435
Teamwork	1,755	584	,080	,165	,094	-,020	,349
Flexibility	2,097	584	,036	,189	,090	,012	,367
Punctuality	2,961	584	,003	,295	,100	,099	,490
Work under stress	2,122	584	,034	,228	,107	,017	,439

Source: (own source)

Since p-values are higher than 0.05, we cannot reject the null hypothesis for the following statements – knowledge of foreign languages, communication skills, creativity, responsibility and teamwork. The average perception of key competencies is therefore confirmed by flexibility, punctuality, and stress work for men and women.

The second hypothesis deals with the study of statistical significance between the average value of key skills and the faculty studied. The statistical evaluation of the mean values using the t-test is shown in the following table – Tab. 3.

Tab. 3: Two-Sample t-Test for equal means

	t	df	p-value	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Knowledge of foreign languages	-,438	584	,662	-,043	,099	-,238	,151
Communication skills	-,101	584	,920	-,010	,102	-,211	,191
Creativity	,858	584	,391	,070	,082	-,091	,232
Responsibility	-,122	584	,903	-,013	,103	-,215	,190
Teamwork	-,342	584	,733	-,029	,085	-,197	,139
Flexibility	-,861	584	,390	-,071	,082	-,232	,091
Punctuality	,312	584	,755	,028	,091	-,150	,207
Work under stress	-,455	584	,650	-,045	,098	-,237	,148

Source: (own source)

The two-Sample t-Test for equal means showed the following results. Since the p-value are higher than the significance level – 0,05 in all factors, we must reject the null hypothesis. This shows that there are no differences in the perception of key competencies between students who study at Faculty of Humanities and Faculty of Management and Economics.

The third hypothesis deals with study of statistical significance between the average value of key skills and the year of study. The statistical evaluation of the mean values using the t-test is shown in the following table – Tab. 4.

Tab. 4: Two-Sample t-Test for equal means

	t	df	p-value	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Knowledge of foreign languages	-,852	584	,395	-,080	,094	-,265	,105
Communication skills	-1,416	584	,157	-,138	,097	-,329	,053
Creativity	-,922	584	,357	-,072	,078	-,226	,082
Responsibility	-1,398	584	,163	-,137	,098	-,330	,056
Teamwork	-2,336	584	,020	-,189	,081	-,348	-,030
Flexibility	-1,324	584	,186	-,104	,078	-,257	,050
Punctuality	,298	584	,766	,026	,087	-,145	,196
Work under stress	-1,634	584	,103	-,152	,093	-,335	,031

Source: (own source)

Since p-values are higher than 0.05, we cannot reject the null hypothesis for the following statements – knowledge of foreign languages, communication skills, creativity, responsibility, flexibility, punctuality and work under stress. The average perception of key competencies is therefore confirmed by teamwork.

4 Discussion

In the longer term it is expected to develop research methods for procedural competency as a goal and a result of education, and criteria for its evaluation, based on a holistic and multidimensional approach; integrative fundamental, practice-oriented principles, corresponding to each level of the higher education system (Makulova, 2015). This research can be supplemented by Litovchin (2015), which focuses on and engages in work, where the main principle is to think creatively and critically; to be able to see emerging problems in the professional activity and to seek ways of their rational solution, using modern technologies; to be able to generate new ideas; to work correctly with the information; to be able to organize the evidence needed to solve specific problems, to analyse them, to propose a hypothesis of problems' solving; to apply the obtained results for emerging issues' solving. Domicián and Darabos (2017) conducted research aimed at acquiring key competencies of university students, where the main result was the finding that these students were not sufficiently prepared for the future profession. Their contribution contributes to a better understanding of the development of new digital technologies that include a wide range of self-assessment methods in higher education. Students' career preferences are an important issue to various stakeholders: to university administration, career counsellors, higher education policy makers as well as to human resource managers in companies. Students, whose career preferences and goals are fulfilled, are better and more highly motivated employees (Frankowska and coll, 2015). Additionally, creativity, ability to work in a team, ability to formulate goals, ability to deal with stress and ability to make decisions revealed to be features with the greatest impact on the prediction of not only study but also career success (Dziekoński, 2016). This fact is confirmed by Máté and Darabos (2017), who emphasize the importance of self-reflection. They focus on the fact that students with better study results are more accurate in terms of self-awareness and self-esteem than other colleagues, students. Ávilaa et al. (2017) focused on examining competencies on a sample of 250 respondents in their research. As a result, these respondents consider the most important knowledge of technologies, emotional skills (conscience), evironmental environment. Among the least important, the respondents identified business partnerships, dialogue capabilities, innovation potential, integration of teaching and resistance to behavioral changes.

According to the psychologists, less verbal and abstract reasoning skills are required to be perceived competent in the Feeling and Power area. Thus, being sociable, cooperative, direct, persuasive, decisive, and responsible requires less verbal and abstract reasoning skills than, for example, analysing and planning. These results are in line with findings of Bartram (2005), who reported a stronger correlation between cognitive ability and the competency analysing/interpreting ($\rho=.40$) than between cognitive ability and the other competencies of his generic competency framework (Heinsman and coll, 2007). Most graduate students, and perhaps many working professionals, often do not allocate time for needed self-reflection and introspection on their strengths and weaknesses as managers and leaders in organizations; nor do they devote full consideration of where and how they will achieve their personal and career goals. This lack of self-reflection among students in graduate programs has been a concern, and has prompted scholars to address the way business schools are educating future leaders (Rubens, 2018). Gaps in working with

customers of young professionals are, according to Hurrell (2015), particularly in the field of teamwork, customer communication, soft skills, and oral communication. Makulova (2015) conducted a survey that included 560 graduates, where respondents noted communication, team work and mobility as highly relevant qualities that should be addressed in the higher education system. Boyatzis and coll (2017) focuses on leadership skills that are essential to a well-functioning organization. It focuses not only on young professionals but also on project managers without any age difference. Seven competencies were found to significantly differentiate outstanding leaders from average leaders. Emotional self-control, adaptability, empathy, coach/mentor, and inspirational leadership significantly or near significantly differentiated the outstanding leaders. Five additional competencies appeared as threshold competencies: achievement orientation, organizational awareness, influence, conflict management, and teamwork. In assessing the dimension Power psychologists focus mainly on personality, although they also rely on cognitive ability and performance during interview simulation exercises (Heinsman and coll., 2007). Similar research was dealt with in Hong (2012), where the main one aim is to investigate how key competencies can be incorporated into school curricula, what relevant instructional methods are needed and what institutional support is required to make school curricula based more on key competencies. The results indicate that a transformative approach, not an additive approach, is required. That is, teachers tend to restructure existing curricula to develop students' key competencies instead of considering the latter as a new teaching component (Hong, 2012). Palomino Pegalajar survey results (2018) among students (n=63) reveal a favorable rating of college students towards the development of generic competencies created in the European context; work based on cooperative learning enables a better development of personal competencies, followed by systematic and instrumental. The development of competences in the teaching and learning process is therefore positively evaluated, which promotes integral formation and lifelong learning.

We can see here that key competencies need to be addressed in the context of university education, with a holistic approach where the key element is the teacher.

Conclusion

The aim of this article, which is based on the research of key competencies of students, which took place at the two faculties of Tomas Bata University in Zlín, in the first and third year, was to identify an effective type of education based on the results of the research. This type must be applicable and it is based on literature that states that key success factors will not only innovate and update the curriculum, but also work strategically and change the concept of the subject. The aim is to bring experienced, educated students to the labour market who are on the labour market, able to adapt to the turbulent conditions of the labour market and are able to compete with young workers and from abroad. It is therefore necessary for students to be interested in foreign study stays, as well as to pass on their knowledge from the theoretical, practical and social fields. It is therefore inevitable to educate future managers with high professional skills, practical skills and social maturity. Research results point to the importance of factors identified by students as key to their further development. They are therefore communication skills, knowledge of foreign languages, creativity, responsibility, teamwork, flexibility, punctuality and work under

stress. The statistical evaluation of the research results confirmed the relationship between gender and individual factors as well as between the faculty studied and the year of study. On the basis of literary research and the study of the results of the cited authors, we can say that self-reflection, self-assessment, critical thinking, planning and decision-making are equally important key competencies. Students need to deepen their interest in studying, developing communication and motivational skills, as well as team work but especially self-reflection. This will be a key factor in their future practice. Young workers who will not be able to properly reflect on the labour market will be less demanding, and given the open labour market, they may not have the kind of job they will be happy to match with their qualifications and which can underestimate their key competence.

The author of the article will continue to address the issue. The research will continue at other faculties, the aim of the author is to obtain important data from all faculties in the Czech Republic, where the core subject is Management and prepares graduates for successful entry into the field of economic and managerial.

References

Asimov, E. G., & Shchukin, A. N. (2009). *New dictionary of metodological terms and concepts (the theory and practice of language teaching)*. Moscow: Publishing House: ICAR.

Ávilaa, L. V., Filho, V. L., Brandli, L, Macgregor, C. J., Molthan-Hill, P., Özuyar, P. G., Moreira, R. M. (2017). Barriers to innovation and sustainability at universities around the world. *Journal of Cleaner Production*, 164, pp. 1268-1278. DOI: 10.1016/j.jclepro.2017.07.025

Bartram, D. (2005). The Great Eight Competencies: A criterion-centric approach to validation. *Journal of Applied Psychology*, 90(6), pp. 1185–1203. DOI: 10.1037/0021-9010.90.6.1185

Barrick, M. R. & Mount, M. K. (1991). The Big Five Personality Dimensions and Job Performance: A Meta-Analysis. *Personnel Psychology*, 44(1), pp. 1-26. DOI: 10.1111/j.1744-6570.1991.tb00688.x

Bejtkovský, J. (2015). Human Capital Management in Banking Institutions in Connection with the Population Ageing Process, Age Management Philosophy and the Concept of Corporate Social Responsibility in the Czech Republic. *Acta Univ. Agric. Silvic. Mendelianae Brun*, 63(6), pp. 1815-1823. DOI: 10.11118/actaun201563061815

Biliková, J. & Taraba, P. (2014, November). The holistic level of competence in the selection process for the position of managers in SMEs in the Czech Republic. 24th International Business Information Management Association Conference - Crafting Global Competitive Economies: 2020 Vision Strategic Planning and Smart Implementation, Milan, Italy.

Boyatzis, R. E., Thiel, K., Rochford, K. & Black, A. (2017). Emotional and Social Intelligence Competencies of Incident Team Commanders Fighting Wildfires. *The Journal of Applied Behavioral Science,* 53(4), pp. 498-516. DOI: 10.1177/0021886317731575

Domicián, M. & Darabos, É. (2017). Measuring the Accuracy of Self-assessment Among Undergraduate Students in Higher Education to Enhance Competitiveness. *Journal of Competitiveness, 9(2),* pp. 78-92. DOI*: 10.7441/joc.2017.02.06*

Dziekoński, K. (2016). Application of Classification Trees for Comparative Analysis of Construction Project Manager´s Competencies. *Polish Journal of Management Studies*, 14(2), pp. 40-50. DOI: 10.17512/pjms.2016.14.2.04

Fan, J.-Y., Wang, Y.H., Chao, L.F., Jane, S.-W., Hsu, L.-L. (2015). Performance evaluation of nursing students following competency-based education, *Nurse Education Today*, 35(1), pp. 97-103. DOI: 10.1016/j.nedt.2014.07.002

Feldman, A. (2010). The road to reinvention. *Bloomberg Business Week*. Pp. 68-70.

Fichter, K. & Tiemann, I. (2018). Factors influencing university support for sustainable entrepreneurship: Insights from explorative case studies. *Journal of Cleaner Production*, 175, pp. 512-524. DOI: 10.1016/j.jclepro.2017.12.031

Frankowska, A., Głowacka-Toba, A., Rasińska, R. & Prussak, E. (2015). Students entering the labour market, their hopes, expectations and opportunities in the context of sustainable economic development. *Journal of International Studies*, 8(3), pp. 209-222. DOI: 10.14254/2071-8330.2015/8-3/17

Gerken, M., Beausaert, S. & Segers, M. (2016). Working on professional development of faculty staff in higher education: Investigating the relationship between social informal learning activities and employability. *Human Resource Development International*, 19(2), pp. 135-151. DOI: 10.1080/13678868.2015.1116241

Handel, M. J. (2003). Skills mismatch in the labour market. *Annual Review of Sociology*, 29, pp. 135–165. DOI: 10.1146/annurev.soc.29.010202.100030

Heinsman, H., De Hoogh, A. H. B., Koopman, P. L. & Van Muijen, J. J. (2007). Competencies Through the Eyes of Psychologists: A closer look at assessing competencies. *International Journal of Selection and Assessment*, 15(4), pp. 412-427. DOI: 10.1111/j.1468-2389.2007.00400.x

Hobson, C. J., Strupeck, D., Griffin, A., Szostek, J. & Rominger, A. S. (2014). Teaching MBA students teamwork and team leadership skills: An empirical evaluation of a classroom educational program. *American Journal of Business Education*, 7(3), pp. 191-212. DOI: 10.19030/ajbe.v7i3.8629

Hollenbeck, G.P., McCall, M.W. & Silzer, R.F. (2006) Leadership Competency Models. *Leadership Quarterly*, 17(4), pp. 398–413. DOI: 10.1016/j.leaqua.2006.04.003

Hong, W. (2012). An international study of the changing nature and role of school curricula: From transmitting content knowledge to developing students' key competencies. *Asia Pacific Education Review*, 13(1), pp. 27–37. DOI: 10.1007/s12564-011-9171-z

Hurrell, S. A. (2015). Rethinking the soft skills deficit blame game: Employers, skills withdrawal and the reporting of soft skills gaps. *Human Relations*, 69(3), pp. 605-628. DOI: 10.1177/0018726715591636

Hurrell, S. A., Scholarios, D. & Thompson, P. (2013). More than a 'humpty dumpty' term? Strengthening the conceptualization of soft skills. *Economic and Industrial Democracy*, 34(1): pp. 158–179. DOI: 10.1177/0143831X12444934

Kurz, R. and Bartram, D. (2002). Competency and Individual Performance: Modelling the world of work. In: Robertson, I.T., Callinan, M. and Bartram, D. (eds), *Organizational Effectiveness: The role of psychology*. Chichester, UK: John Wiley & Sons, pp. 227–255.

Lee, K. E. Effects of Team-Based Learning on the Core Competencies of Nursing Students: A Quasi-Experimental Study, *Journal of Nursing Research*, 26(2), pp. 88-96. DOI: 10.1097/jnr.0000000000000259

Litovchin, Y. M., Avilova, N. L., Podvoiska, I. A., Valeyev, A. S., Yesina, E. A., Gataullina, R. V. & Islamova, L. R. (2015). The Development of Students Key Professional Competencies in the Process of Didactic Tasks Realization. *Journal of Sustainable Development*, 8(3), pp. 285-293. DOI: 10.5539/jsd.v8n3p285

Máté D., Darabos É. (2017). Measuring the Accuracy of Self-assessment Among Undergraduate Students in Higher Education to Enhance Competitiveness. *Journal of Competitiveness*, 9(2), pp. 78-92. DOI: 10.7441/joc.2017.02.06

Mahren, R., Rempfler, A., Buchholz, J., Hartig, J. & Ulrich-Riedhammer, E. M. (2017). System competence modeling: Theoretical foundation and empirical validation of a model involving natural, social, and human-environment systems. *Journal of Research in Science Teaching*. DOI: 10.1002/tea.21436

Makulova, A. T., Alimzhanova, G. M., Bekturganova, Z. M., Umirzakova, Z. A., Makulova, L. T. & Karymbayeva, K. M. (2015). Theory and Practice of Competency-Based Approach in Education. *International Education Studies*. 8(8), pp. 183-192. DOI: 10.5539/ies.v8n8p183

Palomino Pegalajar, M. C. (2018). Competences training in students of social education by practices based on cooperative learning. *Revista Complutense de Educacion,* 29(3), pp. 829-845.

Paulsson, K., Ivergard, T. & Hunt, B. (2005). Learning at Work: Competence Development or Competence-stress. *Applied Ergonomics*, 36(2), pp. 135-144. DOI: 10.1016/j.apergo.2004.09.008

Peeters, M. J. & Vaidya, V. A. (2016). A mixed-methods analysis in assessing students' professional development by applying an assessment for learning approach. *American Journal of Pharmaceutical Education*, 80(5), pp. 1-10.

Rubens, A., Schoenfeld, G. A., Schaffer, B. & Leah, J. S. (2018). Self-awareness and leadership: Developing an individual strategic professional development plan in an MBA leadership course. The *International Journal of Management Education*, 16(1), pp. 1-13. DOI: 10.1016/j.ijme.2017.11.001

Semeijn, J. H., van der Velden, R., Heijke, H., van der Vleuten, C. & Boshuizen, H. P. A. (2007). Competence indicators in academic education and early labour market success of graduates in health sciences, *Journal of Education and Work*, 19(4), pp. 383-413, DOI: 10.1080/13639080600867158

Shala, A. & Grajcevci, A. (2018). Digital competencies among student populations in Kosovo: the impact of inclusion, socioeconomic status, ethnicity and type of residence, *Education and Information Technologies*, 23(3), pp. 1203-1218, DOI: 10.1007/s10639-017-9657-3

Thoresen, C. J., Bradley, J. C., Bliese, P. D. & Thoresen, J. D. (2004). The Big Five Personality Traits and Individual Job Performance Growth Trajectories in Maintenance and Transitional Stages. *Journal of Applied Psychology*, 89(5), pp. 835–853. DOI: 10.1037/0021-9010.89.5.835

Vincent, S. (2011). The emotional labour process: An essay on the economy of feelings. *Human Relations*, 64(10): pp. 1369–1392. DOI: 10.1177/0018726711415131

Vouchilas, G. & George, G. (2016). Professional development portfolio: Perceptions of nutrition and dietetics current students and recent graduates. *Journal of Family and Consumer Sciences*, 108(4), pp. 51-55. DOI: 10.14307/JFCS108.4.51

Wüst, K., Leko Šimić, M. (2017). Students' Career Preferences: Intercultural Study of Croatian and German Students. *Economics and Sociology*, 10(3), pp. 136-152. doi:10.14254/2071-789X.2017/10-3/10

Yates, L., & Collins, C. (2008). Australian curriculum 1975–2005: What has been happening to knowledge? Paper presented at symposium: *Australian Curriculum as 'Really Useful' Educational Research*. December, 2008. Brisbane, Australia.

Zeer, E. F. (2000). *Psychology of personality – oriented vocational education*. Ekaterinburg.

Zimnyaya, I. A. (2003). Key competences – a new paradigm of education. *Higher education today*, 5, pp. 34-42.

Contact Address

Ing. Janka Vydrová, Ph.D.
Tomas Bata University in Zlin, Faculty of Management and Economics, Department or Management and Marketing
Mostni, 5139, 76001, Zlín, Czech Republic
Email: jvydrova@utb.cz
Phone number: +4205760 2414