

Job congruence among young graduates in Hungary

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Abstract: In the first part of this study we review various approaches to employability. We highlight some frequently quoted definitions to be found in the literature, and mention possible ways of measuring employability. Following the literature review we analyse empirically job congruence for young graduates. We would like to answer the question of how the amount of time spent on job search influences one of the subjective indices of employability, job congruence. We also analyse the link between job search time and horizontal congruence in different professional fields. We conclude that the link between job search and job congruence is negative. Graduates employed in the appropriate field spent less time looking for a job. We assumed that there are differences among professional fields and our assumption was confirmed. In most fields for which it is difficult to find substitute employment there is a significant difference between job-search time for congruently and incongruently employed young graduates.

Key words: employability, job congruence, job search time

JEL-code: I29, J29

1. Introduction

In this study we analyse the employability of young Hungarian graduates. In the second and third part we review various theoretical approaches to employability and mention possible ways of measuring employability. In the fourth part we empirically analyse the link between job search time and job congruence and furthermore net salary and job congruence among young Hungarian graduates. Our hypothesis is the following: those graduates that devote more time to job seeking, think harder about their employment decisions, evaluate them more thoroughly and find work which is more closely linked to their degree specialisation. We also measured the relationship between the time devoted to job seeking and congruence for the different courses. Our hypothesis was the following: the relationship between congruence and job search varies according to specialist area. We tested our hypothesis with the help of the Graduate Career Tracking System database (DPR, 2012). We disprove the first hypothesis, the link is converse, on the basis of our analysis we can state that those working in congruent workplaces were able to find work more quickly. The second hypothesis was not disproved, the relationship between job search time and workplace congruence does not hold in all fields.

2. The theoretical approaches to employability

The topic of employability has long been the subject of study by economists and sociologists. Employability is also linked to the concept of employment. At various times both demand- and supply side approaches have been dominant, although today supply side definitions are accepted by most researchers. There are several approaches taken to define employability, but so far no uniform definition has been agreed on.

Based on the literature three major theory groups can be distinguished. According to the orthodox approach employability is interpreted from the supply side of the labour market. This approach focuses on individuals' abilities and skills when trying to explain the success and failure of attempts to find work.

2.1 The employment policy approach

These kinds of studies focus primarily on the supply side of labour market and give major emphasis to employment policies. A significant proportion of authors consider the integration into the labour market of disadvantaged groups to be the most important task, although there are others who understand employability as extending to the whole population (see, for example, Schmid & Gazier, 2002; Gazier, 2007; Schmid, 2008; Haughton et al., 2000). The efficiency of employment policies are measured first and foremost with the help of macroeconomic data. These indicators include, for example, the growth or reduction in the numbers employed and unemployed, the growth and reduction of the time spent unemployed, and the effect of a minimum wage etc.

2.2 The educational policy perspective

The relationship between higher education institutes and the economic world is represented primarily by the concept of a well-trained labour force. Researchers in this field concentrate on which skills and abilities higher education institutes should provide their students with. Experts often argue about how deep higher education courses should be. One group believes that a thorough, specialised background should be taught, which can be used later in organisations, although there is often a lack of harmony between the knowledge demanded and the knowledge provided (see, for example, Harvey, 2001; Atkins, 1999; Lees, 2002). Another group see the question in a totally different light; according to Lundvall (2002), in a learning economy, knowledge itself is not particularly important, what is vital is the ability to acquire knowledge. The main task of universities is to provide lifelong learning. Gabriella Pusztai (2012), on the basis of research carried out at the University of Debrecen, Hungary, emphasised that from the perspective of successfully integrating into the labour market, the

most important role of higher education institutes was integrating students into society and building social networks.

2.3 The path to the world of work

The period between the end of schooling and permanent integration into the labour market is considered to be fundamentally important. First, we focus on an analysis of micro-level data. The most significant studies have been made on students who have just graduated from higher education. Researchers have tried to establish which factors affect – negatively or positively – success in the labour market. Repeated examinations have also sought to discover what labour market characteristics are typical of higher education graduates 5 years after they have completed their courses. With the help of objective and subjective indicators numerous researchers have dealt with this question in both the Hungarian and international literature (see, for example, Blaskó, 2002; Schomborg & Teichler, 2006; Teichler, 2002; Veroszta, 2010; Galasi, 2002; Galasi & Varga, 2005; Horváth, 2008).

During our research we also focused on newly graduated students' integration into the workplace and the objective and subjective indicators of employability, with the help of the Graduate Career Tracking Database available in Hungary.

2.4 Various frequently quoted definitions provided by different authors in the specialist literature

Watts (2006) classified the approaches to employability into three groups, taking account of the time factor: immediate employment, immediate employability, and sustainable employability. Immediate employment means graduates are employed within six months of graduation. The weakness of this definition is that it does not provide appropriate information about whether some individuals are hired in a later period, e.g. because of further studies or

for other reasons; moreover, it does not provide information about whether graduates are employed congruently to their qualifications. Immediate employability analyses whether graduates possess the abilities and skills necessary for a qualified job, without further studies. According to the definition of sustainable employability, it is important not only to get one's first qualified job, but also crucial to remain continuously employed, which necessitates a continuous renewal of abilities and skills.

Another group of authors try to define the concept from the perspective of abilities and skills. According to Harvey (2001), two dimensions are important. The first is the student's ability after graduating to find a job which he or she is able to keep, and so develop; the second is how the student's abilities, skills and knowledge can be developed, and sustained through lifelong learning. Hillage and Pollard (1998) provide a more detailed definition of employability. Employable graduates can get their first jobs, keep them, and, if necessary, can find a new job. For the individual employability means the following: advantages in terms of knowledge, skills and attitude; the application and development of these skills; the signalling of these benefits to potential employers; the context existing within a specific job, e.g. given the conditions of the labour market and the employee. The authors emphasise that this conception of employability can be extended to employability as perceived by society at large. Dearing (1997) considers the following to be key competencies: communication skills, numerical skills, IT skills and learning competencies. One of the most detailed subdivisions is given by Knight and Yorke (2006). In their widely known model (the USEM model) employability consists of four major components. These are: specialist understanding, skills (including their application), self-awareness and self-confidence, and the ability and willingness to exercise strategic thinking. While specialist understanding means a sound theoretical background, skills and abilities are practical. Self-awareness and self-confidence refer to the extent to which the individual is able to apply theoretical and practical knowledge

to a problem as it arises and to take advantage of opportunities as they present themselves. Willingness to apply strategic thinking is the ability to acquire the relevant knowledge and to put it into practice. McQuaid and Lindsay (2005) offer what is perhaps the most comprehensive model of the factors of employability: they distinguish between individual factors, personal circumstances and external factors. Among the individual factors are essential skills from an employability perspective, abilities, demographic characteristics, health situation, efficiency in job search, adaptability and mobility. Personal circumstances include the home situation, work culture and access to funds. Among external factors they list the demand characteristics of the labour market and the existence of support services.

All definitions emphasise the variety of (potential) employees, with particular significance given to physical and cognitive suitability, study, flexibility, adaptability and mobility, but all definitions consider employability as the end result (Thijssen et al., 2008).

3. Measuring employability

One possible way to measure employability is with the help of macroeconomic indicators: the number of people in employment; the number continuing studies; job-seekers, or those wishing to continue studies; the inactive (Lees, 2002).

The other approach is based on the collection of micro-level data: tracing employability, and measuring students' levels of satisfaction (Lees, 2002).

The system of indicators used to measure employability is very complex. The labour market success of graduating students is measured with the international CHEERS survey of objective and subjective indicators. Schomborg (2010) lists among objective indicators the proportion in employment, the proportion in full time employment, those on open-ended contracts, the specialist position held, and income received; subjective indicators include the use of knowledge and skills, closeness to the specialised subject area, the suitability of the position, the congruence between the position and the level of the qualification, the fulfilment

of expectations, high status, the independent nature of the work and satisfaction with the workplace.

In Veroszta's (2010) study the indicators used in the international CHEERS survey are grouped in the following way: the objective indicators include those following the (job search) transition process; these indicators cover the period taken to find the first job after graduation; data measuring employment and income; data regarding the position filled and the size of the firm; there are also indicators combining the size of the firm and the leadership level. In the subjective indicator group are those which measure the congruence of the job which seek to discover whether the graduate is working in a field related to his/her degree; also included here are mobility plans, i.e. whether the employee is planning to change workplace; indicators relating to prestige, which measure satisfaction with both the work and the workplace, and measurements related to the level of satisfaction with status in the workplace.

As the statistical indicators described above clearly show, one of the important indicators for success in the labour market is the congruence between the qualification obtained and employment. We can distinguish between vertical and horizontal congruence. In relation to vertical congruence the specialist literature uses the terms over-education and under-education (see, for example, Rumberger, 1981; Duncan & Hoffman, 1981; Groot & van der Brink, 2000). If the employee has a higher than necessary level of qualifications for the job, then he/she is over-qualified; if it is lower than necessary, then he/she is under-qualified. We can speak of horizontal congruence if the employee is working in a job which fits his/her specialist qualifications. We can examine congruence in two ways, either with a subjective assessment of the suitability of the work and the qualifications, when the respondent rates the strength of the connection between his/her qualifications and job on some kind of scale, or

when the researcher evaluates the level of congruence on the basis of the position(s) the employees occupy (Galasi et al., 2001).

Dóra Vámos (1989) draws attention to the difficulties caused by the variety of study materials produced in higher education. If the students have a too concrete, specialised curriculum in some cases this can facilitate the job search, but in other cases, when the work is not specifically centred on the area of specialised study, the chances of finding a job are reduced and the search becomes more difficult. A too generalised curriculum, however, significantly increases the difficulties of entering the job market. One way of developing adaptability to the labour market is if the course includes an awareness and use of the convertible differences which naturally arise between different professions and the substitutability of job types in different fields of employment. Research has indicated that individual graduate professions can be divided into four groups on the basis of two fundamental occupational characteristics (Vámos, 1989):

- Easily substitutable and convertible occupations, (e.g. management-, economic-, teaching-related)
- Easily substitutable but less easily convertible occupations, (e.g. librarian, adult education teacher, journalist)
- Not easily substitutable but easily convertible occupations, (e.g. law-, technical-, agriculture-related)
- Neither easily substitutable nor easily convertible occupations, (e.g. doctor, artist).

4. Empirical analysis of workplace congruence among young graduates in Hungary

According to our hypothesis those graduates that devote more time to job seeking, think harder about their employment decisions, evaluate them more thoroughly and find work which is more closely linked to their degree specialisation.

We tested our hypothesis with the help of the Graduate Career Tracking System database (DPR, 2012). The DPR data input for 2012 took place in the first half of 2011 (February to June). Data was collected via an online questionnaire. The research extended to the whole of the base population – to students given an absolutorium (in Hungary this is the certificate awarded to final year students showing they have completed the taught elements of their course) in 2007, 2009 and 2011, including those on traditional university and further education college courses, individual courses and unified courses, as well as those qualifying with bachelor's or master's degrees. Data collection was carried out in the DPR programme by 32 participating higher education institutes, on the basis of the address lists of their own graduating students. The anonymous answers are collected and processed by the higher education institutes, and the results are unified, edited and weighted by the Educatio Nonprofit Kft. limited company from the combined databases of the various institutes. The questionnaire can be accessed via a link provided on the email sent to the students, and the questionnaire is completed on an online interface. The graduates' answers are handled anonymously by their institution. In addition to the unified block which is structured in a uniform fashion with required questions, there is the option to add questions relating specifically to that particular institution; however, the national database only contains the answers to the questions on the common, uniformly structured block. The base population and the characteristics of the sample were the following: the online questionnaire was sent to all students graduating at participating institutions, receiving an absolutorium in 2007, 2009 and 2011, including the following course types: traditional university, further education college, individual courses and unified courses, as well as those qualifying with bachelor's or master's degrees. On the basis of statistics provided by the institutions the base population numbered 163,964 individuals, and the number of (voluntarily provided) answers on the database was 24,890, giving a participation rate of 15.18 % (Veroszta, 2013).

Because of the voluntary response the presence of self-selection bias can occur, but in our opinion the large number of sample elements make the database suitable to analyze the link between job search time and job congruence.

4.1 Workplace congruence

With horizontal congruence we measured how the amount of time devoted to job seeking influenced the extent to which the graduate's work place is connected to the degree subject. Our dependent variable was congruence. Congruence was measured on the basis of answers to the question "In your current workplace to what extent do you use the knowledge and abilities you acquired during the studies which this questionnaire refers to?" Measurement was carried out using the 5 level Lickert scale (where 1 means 'not at all' and 5 means 'completely'). We considered those who gave a 1 or 2 answer to be not congruently employed (either not at all or not very much), and those who gave a 4 or 5 to be congruently employed (to a great extent or completely), the 3s were missing. So we created a dummy variable. We measured the time devoted to job seeking on the basis of answers to the question "How many months did you spend looking for a job after you received your absolution?" The number of individuals in the sample was 5997, of whom 3600 were congruently employed and 2397 were not. In the case of those not congruently employed the average job seeking time was 4.51 months, while for those congruently employed it was 3.28 months. On the basis of the Levene's test for the equality of means which we carried out ($F=74.35$) we can assume there is a difference in the variance of the two groups. According to the results of the independent two-sample t-test ($t=10.42$), degree of freedom=4485.31) we can reduce the hypothesis that the congruently and non-congruently employed spent an identical amount of time searching for jobs to a level of significance of 1%. On the basis of our analysis we can state that those working in congruent workplaces were able to find work more quickly. Our hypothesis was not confirmed.

4.2 Differences between areas of specialisation

We wanted to make our analysis more accurate, since we believed that because of the great variety of specialised courses the results described above – which stated that graduates found congruent positions of employment more quickly – would not be true for all subject areas because the substitutability and convertibility of the courses could be a significant influencing factor. We also measured the relationship between the time devoted to job seeking and congruence for the different courses. Our hypothesis was the following: the relationship between congruence and job search varies according to specialist area. The results are summarised in Table 1. We found a significant difference between the two groups in the time taken for job search in economics, humanities, medical sciences, IT, law and engineering. Comparing our results with the groupings created by Vámos (1989), we can state that with the exception of agricultural sciences in the subjects which are not easily substitutable (indicated in grey type in the table) there is a significant difference between job search time for those working in congruent and non-congruent positions. Those working in congruent positions find work more quickly in these specialist areas. The same result is found in the economics and humanities fields. In the case of economics we can conclude that while in 1989 at the time Dóra Vámos' article was written it was easy to find work in the economics field, this tendency cannot be observed today. Within the specialist subject areas of humanities it is sometimes difficult to decide what counts as a congruent position and what does not.

We also examined the relationship between the net salary and congruence according to different specialist fields. We can see the results in Table 2. We have highlighted those fields in which the non-congruent employees have higher salaries. We found a significant difference between salaries in economics, IT and natural sciences; in these fields the salaries received by those working in congruent positions exceed the salaries of those in non-congruent positions.

The difference in the teaching and social science professions is also significant; in these fields, however, non-congruent employees earn more.

5. Conclusion

In our study we have brought together various theoretical approaches to the question of employability, supplementing the results to be found in previous specialist literature. During our empirical analysis of employability we made it our aim to examine objective and subjective indicators. The analyses which had previously been conducted on the 2010 DPR database results from Debrecen University were also carried out on the national DPR 2012 database. We disproved our hypothesis 1: those graduates that devote more time to job seeking, think harder about their employment decisions, evaluate them more thoroughly and find work which is more closely linked to their degree specialisation. On the basis of our analysis we can state that those working in congruent workplaces were able to find work more quickly. Hypothesis 2 – the relationship between congruence and job search varies according to specialist area – was not disproved. Following this, in order to discover differences between the various specialist course areas we carried out further analysis, and in this way established that the positive relationship between job search time and workplace congruence does not hold in all fields. The direction of further research is to estimate the effect of different indicators on job search time and salary.

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Table 1

Relationship between time devoted to job search and horizontal congruence, according to specialist subject area: results of the independent two-sample *t*-test

	Congruence		Job search time		F-test (Levene's-test)		t-test		
	Cong.	Not cong.	Cong.	Not cong.	F	sig.	t	level of freedom.	sig.
Economics and business	508	571	3.210	4.480	20.951	.000	5.179	1055.080	0.000***
Humanities	446	452	3.540	4.560	18.141	.000	3.306	849.471	0.001**
Medical sciences	473	60	2.140	3.180	6.949	.009	2.706	70.692	0.009**
IT	197	116	2.550	4.360	14.181	.000	3.633	157.558	0.000***
Law	384	55	3.260	5.400	19.148	.000	2.734	60.380	0.008**
Engineering	505	322	3.000	4.140	12.326	.000	4.156	605.328	0.000***
Agricultural sciences	142	123	3.820	4.330	0	.984	0.792	263.000	0.429
Public administration, law and order, military	44	52	5.000	6.420	1.251	.266	1.127	94.000	0.263
Teaching	378	106	3.430	4.440	0.514	.474	2.027	482.000	0.043
Social sciences	232	307	4.770	4.540	1.795	.181	-0.520	537.000	0.603
Natural sciences	188	169	4.190	4.920	0.061	.805	1.455	355.000	0.147

Data source: DPR 2012

Note: p=0.000 ***, p<0.01 **, p<0.05*

Table 2**Relationship between net salary and horizontal congruence, according to specialist****subject area: results of the independent two-sample T-test**

	Congruence		Salary		F-test (Levene's-test)		t-test		
	Cong.	Not cong.	Con g.	Not cong.	F-test	sig.	t-	level of freedom	sig.
Economics and business	1056	1036	209	136.4	3.863	0.049*	-3.870	2059.810	.000***
Humanities	945	887	141	148.5	27.707	0.000**	1.707	1616.820	.088
Medical sciences	680	114	160	146.9	2.203	0.138	-0.960	792.000	.336
IT	460	238	260	216	6.098	0.014*	-3.300	566.289	.001**
Law	728	153	165	172.8	11.93	0.001**	0.720	186.707	.473
Engineering	992	624	218	200.7	0.280	0.597	-2.300	1614.000	.022
Agricultural sciences	205	187	145	146.1	6.960	0.009**	0.091	344.089	.928
Public administration, law and order, military	147	111	175	158.6	0.800	0.372	-1.850	256.000	.066
Teaching	785	261	117	127.7	37.092	0.000**	1.983	332.185	.048*
Social sciences	588	579	138	157.2	29.873	0.000**	3.273	1120.620	.001**
Natural sciences	405	273	168	148.2	6.644	0.010**	-2.200	675.620	.028*

Data source: DPR 2012

Note: p=0.000 ***, p<0.01 **, p<0.05*

References

- Atkins, M. J. (1999). Oven-ready and Self-basting: Taking Stock of Employability Skills. *Teaching in Higher Education*, 4, 2, 267-280.
- Blaskó, Zs. (2002). Pályakezdő diplomások a munkapiacra – egy nemzetközi összehasonlító vizsgálat néhány tanulsága. *Educatio*, 11, 2, 301-312.
- Dearing, R. (1997). *Higher Education in the Learning Society Report of the National Committee of Inquiry into Higher Education*, London: HMSO
- Duncan, G. J., & Hoffmann, S. D. (1981). The Incidence and Wage Effects of Overeducation. *Economics of Education Review*, 1, 75-86.
- Fónai, M., Csomós, Gy., & Kotsis, Á. (2010). Debreceni Egyetem Diplomás Pályakövető rendszer: Végzett hallgatók 2007–2009. http://www.vir-dpr.unideb.hu/media/document/debreceni_egyetem_diplomas_palyakoveto_rendszer_vegzett_2007_2009.pdf (accessed: 11.04.2013)
- Forrier, A., & Sels, L. (2003). The concept employability: a complex mosaic. *International Journal of Human Resources Development and Management*, 3, 2, 102-124.
- Galasi, P., Timár, J., & Varga, J. (2001). Pályakezdő diplomások a munkaerőpiacon. In Semjén, A. (Ed.), *Oktatás és munkaerőpiaci érvényesülés* (pp. 73–89). Budapest: MTA Közgazdaságtudományi Kutatóközpont.
- Galasi, P. (2002). Fiatal diplomások életpálya-vizsgálata, In Kolosi, T., Tóth, I., Gy. & Vukovics, Gy., (Eds.), *Társadalmi riport 2002*. Budapest: TÁRKI. Electronic version (2006). <http://www.tarki.hu/adatbank-h/kutjel/pdf/a832.pdf> (accessed 13.12.2011)
- Galasi, P., & Varga, J. (2005). *Munkaerőpiac és oktatás*. Budapest: MTA Közgazdaságtudományi Intézet.
- Gazier, B. (1998). Employability: definitions and trends. In Gazier, B., (Ed.), *Employability: Concepts and Policies*. Berlin: European Employment Observatory.
- Gazier, B. (2007). Making transitions pay: the transitional labour markets approach to “Flexicurity”. in Jørgensen ,H., & Madsen, P., K., (Eds.), *Flexicurity and beyond. Finding a new agenda for the European Social Model* (pp. 99 – 130), Brussels: Djof Publishing.
- Groot, W., & van der Brink, H. (2000). Overeducation in the Labor Market: a Meta-analysis. *Economics of Education Review*, 19, 149-158.
- Harvey, L. (2001). Defining and measuring employability. *Quality in Higher Education*, 7, 2, 97-109.
- Haughton, G., Jones, M., Peck, J., Tickell, A., & While, A. (2000). Labour market policy as flexible workfare: Prototype Employment Zones and the new workfarism. *Regional Studies*, 34, 669–680.
- Hillage, J., & Pollard, E. (1998). *Employability: developing a framework for policy analysis*. Research Brief 85, Department for Education and Employment.
- Knight, P. T., & Yorke, M. (2006). *Embedding employability into the curriculum*, Learning and Employability Series One, The Higher Education Academy. <http://www.qualityresearchinternational.com/esectools/esectpubs/yorkeknighembedding.pdf> (last accessed 29.12.2011)

- Lees, D. (2002). Graduate employability – Literature review, University of Exeter. <http://www.qualityresearchinternational.com/esecttools/esectpubs/leeslitreview.pdf> (accessed 05.04.2012)
- Lundvall, B. A. (2002). The University in the Learning Economy. DRUID Working Paper, 2-6,
- McQuaid, R. W., & Lindsay, C. (2005). The Concept of Employability. *Urban Studies*, 42., 2, 197–219.
- Polónyi, I. (2010). Foglalkoztathatóság, túlképzés, Bologna. *Educatio*, 19, 3, Felsőoktatás és foglalkoztathatóság, 384-401. (downloadable)
- Rumberger, R. W. (1981). The Rising Incidence of Overeducation in the U.S Labor Market. *Economics of Education Review*, 1, 293-314.
- Schmid, G. (2008). Full employment in Europe. Managing labour market transitions and risks. Northampton : Edward Elgar Publishing Inc.
- Schmid, G., & Gazier, B. (Ed.) (2002). The dynamics of full employment. Social integration through transitional labour markets. Northampton :Edward Elgar Publishing Inc.
- Schomborg, H., & Teichler, U. (2006). Higher Education and Graduate Employment in Europe: results of graduate surveys from twelve countries. Dordrecht: Springer, 2006.
- Schomburg, H. (2010). Felsőfokú diplomások szakmai sikeressége. Felsőoktatási Műhely 1.
- Teichler, U. (2002). Graduate employment and work in Europe: diverse situations and common perceptions. *Tertiary Education and Management*, 8, 3, 199-216.
<http://www.oecd.org/dataoecd/5/47/38038274.pdf> (accessed: 30.12.2011)
- Thijssen, J. L. (2000). Employability in he brandpunt. Aanzet tot verhaldering van een diffuus fenomeen. *Tijdschrift HRM*, 1, 7-34.
- Thijssen, J. L., Van Der Heijden, B. I. J. M., & Rocco, T. S. (2008). Toward the Employability-Link Model: Current Employment Transition to Future Employment Perspectives. *Human Resource Development Review*, 7, 2, 165-183.
- Vámos, D. (1989): A képzettség vására: közgazdasági szempontok az oktatásszervezésben. Budapest: Akadémiai Kiadó.
- Veroszta, Zs. (2010). A friss diplomások helyzetének főbb dimenziói. Diplomás Pályakövetés IV. – Frissdiplomások 2010 http://www.felvi.hu/pub_bin/dload/DPR/dprfuzet4/Pages9_36_Veroszta.pdf (accessed 29.12. 2011)
- Veroszta, Zs. (2013). Diplomás Pályakövetési Rendszer – Intézményi adatfelvétel a 2007-ben, 2009-ben illetve 2011-ben végzetek körében. Módszertani összefoglaló. Frissdiplomások 2012. http://www.felvi.hu/pub_bin/dload/Frissdiplomasok_2012_zarotanutmany_es_modszertan/modszertan_vegzett2012.pdf (accessed 10.12.2013)
- Watts, A. G. (2006), Career development learning and employability. Learning and Employability Series Two, The Higher Education Academy
http://hca.ltsn.ac.uk/assets/documents/resources/resourcedatabase/id592_career_development_learning_and_employability.pdf (accessed 13.12.2011)