# IS THERE A MISMATCH BETWEEN EMPLOYERS' AND UNIVERSITY TEACHERS' PERCEPTIONS ON GRADUATE EMPLOYABILITY IN CROATIA?

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**Abstract.** *Employability in graduates is considered to be an outcome universities should seek to achieve. At the same time, scholars rarely differentiate between "graduateness as a state after the completion of a course, and employability as an assessment of the economic worth of a student at that time" (Glover, Law and Youngman, 2002:293). This paper aims to study employability in higher education from the employers' and university teachers' perspective. It highlights the most highly valued employability competencies and attributes, and paints an interesting picture of perceptions university teachers and employers have of employability characteristics. The empirical research incorporates 134 responses from employers from Croatian companies of all sizes, and 124 from University teachers from two Croatian universities: University of Rijeka and Josip Juraj Strossmayer University of Osijek. The results indicate that the university teachers and employers have similar views regarding employability characteristics, but view differently the knowledge, skills and attributes significant for employment and the contribution of higher education to the improvement of these attributes. The results point to the necessity of Croatian universities to cooperate and communicate more efficiently with employers and employer associations in developing courses, and delivering relevant subject content.*

**Key words:** *university teachers, employers, graduateness, employability, competencies, partnerships in higher education*

## 1. INTRODUCTION

For decades, higher education has been perceived as a source of human capital and economic development (Bell, 1973; Castells, 1994), as well as a critical factor enabling individuals to access opportunities in the labor market. Expanding graduate mobility crosswise over Europe implies that businesses have a pool of exceptionally qualified candidates for employment, and that there is an immense competitiveness at the contemporary EU graduate recruitment market.

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At the same time, massive adoption of higher education has prompted a larger competition for graduate jobs and a decrease in the degree's merit, and graduates realize that a degree is only a precondition for their employment and that they must also deliver "value added" experience, skills, and qualities (Brown et al., 2011; Tomlinson, 2008). All stakeholders want to see a return on their investment into higher education: government anticipates a skilled and sustainable workforce, employers desire a good choice of competitive job applicants, and graduates expect to be highly employable upon graduation. It is not news that higher education and the employers share a common misunderstanding about each other's roles: employers question the "work readiness" of graduates and university teachers believe employers do not fully appreciate the graduates' acquired knowledge. There are unofficial perceptions about how well universities educate and train graduates and thus increase their employability, but there is limited research that compares the importance of certain employability competencies and the level of satisfaction of employers with the contribution of high education institutions (HEI) to the development of these skills. The mismatch between employers' and university teachers' perceptions has rarely been researched. In order to get a more accurate picture, this paper unpacks the concept of employability by establishing employers' and university teachers' understanding of competencies that enhance employability in the congested graduate labor market.

The empirical research is based on these hypotheses:

H1: University teachers and employers share a similar perspective on what competencies and attributes are important for employability.

H2: Higher education institutions significantly contribute to the development of competencies and attributes that employers value.

The paper is organized as follows. Firstly, the term employability is explained and the role of higher education in providing graduates with employability skills is highlighted. After that, the misunderstanding of the concepts of graduateness and employability is explained. In the next chapter, the findings are discussed in light of the aim of the paper. The paper concludes by suggesting some of the ways in which employers and universities can cooperate better to promote graduate employability.

## 2. LITERATURE REVIEW

Although there are numerous definitions of employability, there is a general consensus as to which qualities, characteristics, skills and knowledge make up its content. The learning society, affected by constant changes, requires knowledge and skills suitable to ensure solutions to rapidly changing business circumstances. Employability is considered to be a shared responsibility between individuals, employers and public educational institutions (schools, universities) including government agencies. However, universities are often subject to criticism claiming that values and competencies they develop in students do not appropriately match the specific needs of the employers.

Investigations of employer needs have mostly focused on individual transferable skills. When graduates are recruited, employers commonly look for people with explicit aptitudes and knowledge, yet with the capacity to be proactive, to see and react to problems creatively and autonomously (UK

Department of Education and Employment briefing paper, 1997, in: Fallows & Steven, 2000). Employability can be defined as *"one's ability to identify and realise career opportunities"* (Fugate et al., 2004:23) or as *"the ability to keep the job one has or to get the job one desires"* (Rothwell & Arnold, 2007:25). This "supply side" definition of employability has been expanded in the literature (Forrier & Sels, 2003; McQuaid & Lindsay, 2005) to include the "demand side", where employability is seen as a function of the labor market where the supply and demand of labor is what determines an individual's employability at any given time. There is a common agreement that it comprises *"the capability of obtaining work, functioning effectively within work; moving between jobs/roles; and having the skills, knowledge and attributes that make this possible"* (Gedye & Beaumont, 2018:408). In addition, these definitions of employability imply that individuals posses, and are able to display certain competencies and attributes in order to obtain jobs (Harvey, 2001). Hillage and Pollard (1998) suggest a model of employability that consists of four following components: *"assets (knowledge, skills and attitudes); deployment (career management skills, job search skills and strategic approach); presentation (the ability to present one's assets through CVs, interviews, references, qualifications, etc.); and personal and labor market context (caring responsibilities, disability, job openings, selection behavior of employers, etc.)"*. The USEM model, created by Yorke and Knight (2003), focuses on learning and also identifies four employability aspects: Understanding; Skillful practices; Efficacy beliefs; and Metacognition. Dacre Pool and Sewell's (2007) research introduced a model that includes somewhat different aspects of employability: career advancement learning; experience; degree subject knowledge; understanding and skills; generic skills; and emotional intelligence. Employable graduates should, according to Hernandez-March et al. (2009) present professional qualities (knowledge and capacities that are practical-related and gained in a particular discipline), generic attributes (transferable crosswise over various areas) and interpersonal ones (used to work and cooperate effectively with others).

DOTS employability model, developed by Law and Watts (1977) is the most widely used framework in the UK and it states that there are four fundamental components to careers education: *"Decision-making (decision making skills), Opportunity awareness (knowing what work opportunities exist and what their requirements are), Transition learning (including job searching and self-presenting skills) and Self-awareness (in terms of interests, abilities, values, etc.)"* (Dacre Pool & Sewell, 2007:279). These notions of employability also imply that *"employers have an idea of the attributes that are necessary for the effective functioning of their organization now and in the future, and that they have mechanisms for establishing that graduates exhibit these attributes"* (Harvey, 2001:99). This assertion is also confirmed by findings of the SCANS report (SCANS, 1999) which differentiates between foundation skills (basic skills, thinking skills, and personal qualities) and workplace competencies as two key elements of success in the workplace.

While looking at graduate employability, it is critical to separate graduateness as a dimension of capabilities and characteristics a graduate has after he/she has completed a course of studies, and employability, which deals with how graduates can find, keep or change jobs, i.e. an evaluation of the economic worth of a student at that time, which can be accomplished regardless of the academic level (Glover, Law & Youngman,

2002). Not having this distinction in mind results in employability being understood as an institutional achievement rather than the ability of an individual student to get employment (Harvey, 2001). Whereas traditional academic values and subject centered study promote graduateness, employability emphasizes key skills, adaptability and willingness to learn in a changing society.

*"Graduateness is a description of a set of qualities that usually mark a person who has undertaken a degree course developed under the auspices of nationally monitored quality assurance systems and is nowadays rarely seen as a sufficient basis for continued personal and institutional success in a highly competitive, flexible and globally responsive environment. Employability is much more practical and objective in both description and content*" (Glover, Law & Youngman, 2002:303) and is typically developed through vocational training, rather than through higher education.

The general notion is that graduates need more than the degree when looking for employment, i.e. degree is required, but does not guarantee individual's long-term employability (Lowden et al., 2011; Andrews & Higson, 2008). The HEQC (1996) threefold model of graduateness defines following facets of graduateness: cultural (acceptance of shared cultural values), curriculum (assimilation of a body of knowledge), and cognitive (intellectual attributes). In their qualitative study Finch et al. (2016:63) differentiate between graduates' four *„interdependent resource categories: intelligence resources; personality resources; meta-skill resources; and job-specific resources."*

A transition from higher education into the world of work is not always straightforward (Andrews & Higson, 2008) and graduates may not be immediately employable. In addition, only a minority of graduates finds employment, which directly utilizes the academic content of their course of study, and the variety of jobs which graduates apply for, is getting increasingly diverse. For this reason, graduates need competencies and attributes that are directly transferable into a wide range of jobs. Permanence is no longer a significant feature of the world of work as traditional career paths are disappearing and new industries are emerging, entire industries are relocated, new technologies are making academic knowledge, established practices and experience are inappropriate. The old security of a job for life within one organization is ending, the dynamic view endorses that employability increasingly requires flexibility and adaptability as future employees are moving from formal, hierarchically based work towards casual, portfolio work. Consequently, for individuals to be employable it means that they ought to be skilled at organizing and setting objectives, be proactive in the management of change, have the fundamental skills for self- advancement and networking to adapt to evolving conditions, *"be active in the maintenance of continuous learning and capable of working within changing teams"* (Glover, Law & Youngman, 2002:296). This requires both graduateness and the command of key skills essential for the self-management, that may or may not, have been developed during higher education (Glover, Law & Youngman, 2002).

There is a positive relationship between education and employability. Universities are increasingly encouraging and enabling students to become employable. In economic literature, an individual's investment in education is viewed as a source of human capital development or as a substitute for ability (and not as the process itself through which the ability is developed), the

latter leading to the situation where "*education is increasingly demanded by students who want to enhance their employability"* (Bell, 2016:4). However, employers expect graduates to exhibit a range of skills and attributes which are acquired during their program of study, but also an array of soft skills that are not necessarily developed through study programs, which include team working, communication, leadership, critical thinking, problem solving and often managerial abilities or potential (Lowden et al., 2011). Some researchers argue that the primary role of a university is to educate, whereas for employers it is to train (Rayner & Papakonstantinou, 2015).

The conceivable tension between graduateness and employability has prompted impressive debate of the purposes of education in the post-modern age. Regardless of the contrasting theories of the role of education in delivering employable graduates, it is expected that courses offer instruction in skills that increase employability. This has prompted the advancement of strategies directed at strengthening graduates' employability prospects, which incorporates the importance of soft skills, the development of new courses and the alteration of the current ones, in addition to offering work experience to students (Anderson et al., 2009; Finch et al., 2013).

## 3. METHODOLOGY

This paper analyses the points of view of employers and university teachers on skills and attributes that strengthen graduate employability. Data from the two shareholders were compared to ascertain diversity in perceptions. Data was collected by a questionnaire. The survey comprises 36 characteristics of graduate employability. The list of characteristics was evident in pre-existing surveys (Carnevale et al., 1990; Nunan, 1999; Conrad & Leigh, 1999; Swiatek, 2000; Rosenberg et al., 2012; Gibb, 2002; Yorke & Knigh, 2004; Md Nasir et.al., 2011; Fatoki, 2014), as well as from SCANS report (SCANS, 1999) and DOTS model (Law & Watts, 1977).

The survey designed for this research was modeled in accordance with the two surveys previously conducted in Europe: the European Commission's Eurobarometer 2010, entitled *"Employers' perception of graduate employability"* and the *UK Commission's Employer Skills Survey 2013: UK results* (Winterbotham et al., 2014).

The questionnaire consists of open and closed questions, with answers to the closed questions offered on a seven-point Likert scale. The research yielded 134 responses from employers from Croatian companies of all sizes, and 124 from university teachers from two Croatian universities: University of Rijeka and Josip Juraj Strossmayer University of Osijek. The data were analyzed with the SPSS software, by using descriptive statistics, Mann-Whitney U test and Importance-Performance Analysis (IPA).

## 4. RESULTS AND DISCUSSION

The findings are presented in two sections. The first section discusses the relative importance of 36 employability characteristics based on the quantitative data from the questionnaire administered to employers and university teachers . The second section focuses on how employers and university teachers assess the contribution of HEIs to the acquisition of the employability characteristics. Finally, the correspondence of the importance of employability characteristics and HEI contribution from the employers' perspective is discussed.

*Table 1: Assessment of importance given by employers and university teachers to individual characteristics*

| Characteristic | Employers' Mean | Teachers' Mean | Δ | p Value* | Employers' Rank | Teachers' Rank |
|---|---|---|---|---|---|---|
| Problem solving | 6.27 | 6.27 | 0.00 | 0.668 | 1 | 1 |
| Enthusiasm and motivation | 6.26 | 6.10 | 0.16 | 0.128 | 2 | 5 |
| Willingness to learn | 6.14 | 5.92 | 0.22 | 0.328 | 3 | 11 |
| Learning skills | 6.12 | 5.97 | 0.15 | 0.450 | 4 | 8 |
| IT usage | 6.11 | 6.04 | 0.07 | 0.384 | 5 | 7 |
| Teamwork | 6.10 | 5.88 | 0.22 | 0.131 | 6 | 14 |
| Intelligence | 6.10 | 6.10 | 0.00 | 0.971 | 7 | 4 |
| Foreign languages | 6.06 | 6.22 | -0.16 | 0.324 | 8 | 2 |
| Application of acquired knowledge | 6.05 | 6.18 | -0.13 | 0.442 | 9 | 3 |
| Establishing and maintaining interpersonal contacts | 6.04 | 6.08 | -0.04 | 0.404 | 10 | 6 |
| Diligence | 6.02 | 5.92 | 0.10 | 0.646 | 11 | 10 |
| Desire for achievement | 5.98 | 5.88 | 0.10 | 0.360 | 12 | 15 |
| Thinking "outside the box" and innovativeness | 5.95 | 5.96 | -0.01 | 0.763 | 13 | 9 |
| Written communication | 5.94 | 5.87 | 0.07 | 0.886 | 14 | 16 |
| Adaptability to change | 5.93 | 5.89 | 0.03 | 0.932 | 15 | 13 |
| Work ethics | 5.92 | 5.53 | 0.39 | 0.017 | 16 | 25 |
| Self-confidence | 5.79 | 5.86 | -0.07 | 0.408 | 17 | 17 |
| Discipline and persistence | 5.78 | 5.77 | 0.01 | 0.896 | 18 | 19 |
| Opportunity recognition | 5.70 | 5.73 | -0.03 | 0.806 | 19 | 22 |
| Taking initiative | 5.67 | 5.57 | 0.10 | 0.363 | 20 | 24 |
| Independence | 5.66 | 5.41 | 0.25 | 0.175 | 21 | 28 |
| Negotiation skills | 5.58 | 5.75 | -0.17 | 0.483 | 22 | 21 |
| Work under pressure | 5.58 | 5.19 | 0.39 | 0.082 | 23 | 30 |
| Making judgements based on limited information | 5.46 | 5.63 | -0.17 | 0.387 | 24 | 23 |
| Critical thinking | 5.37 | 5.90 | -0.53 | 0.000 | 25 | 12 |
| Persuasion | 5.34 | 5.48 | -0.15 | 0.338 | 26 | 26 |
| Strong orientation to achievement | 5.30 | 5.31 | -0.01 | 0.590 | 27 | 29 |
| Public speaking | 5.16 | 5.76 | -0.59 | 0.000 | 28 | 20 |
| Practical experience | 5.13 | 5.82 | -0.69 | 0.000 | 29 | 18 |
| Subject knowledge | 5.08 | 5.44 | -0.36 | 0.067 | 30 | 27 |
| Use of social networks | 4.64 | 4.74 | -0.10 | 0.661 | 31 | 32 |
| Sense of humour | 4.52 | 4.64 | -0.11 | 0.683 | 32 | 33 |
| Grade point average (GPA) | 4.03 | 4.96 | -0.93 | 0.000 | 33 | 31 |
| Achievement in sport | 3.13 | 3.25 | -0.12 | 0.480 | 34 | 35 |
| Attractive appearance | 2.98 | 3.60 | -0.61 | 0.000 | 35 | 34 |
| Aggression | 2.56 | 2.79 | -0.23 | 0.312 | 36 | 36 |

As demonstrated by in Table 1, the importance scores for employability characteristics in the two subgroups differ only slightly, which implies that, by and large, employers and university teachers place similar importance on individual employability characteristics. The largest differences in average importance are detected for *grade point average* (-0.93) and *practical experience* (-0.69). Teachers value both characteristics higher than employers do. Although disconnects between the worlds of academia and employers have long been noted (Dunne et al., 1997), this research shows that there may be more common ground between university teachers and employers than is generally perceived.

Unsurprisingly, employers and university teachers agree that *problem-solving skills* promote employability the most, and *achievement in sports, attractive appearance* and *aggression* the least. Top- ranked characteristics according to employers in this research are consistent with the results of previous research: e.g. *problem solving skills* proved to be highly valued by employers also according to Rayner & Papakonstantinou (2015), Hodge et al. (2011) and Andrews & Higson (2010); and *willingness to learn, written communication, ability to work effectively in teams* and *work ethics* are identified to be of high priority by Andrews & Higson (2010) and Rayner & Papakonstantinou (2015).

It is worth noticing that, employers consider all employability characteristics (with the exception of *achievement in sport, attractive appearance* and *aggression*) similarly important for employability (standard deviation, SD = 0.93064; coefficient of variation, CV = 17.14%). Low rank for *subject knowledge* is surprising, and this proves that policies that promote knowledge acquisition are not in tune with employers' priorities.

The fact that statistically significant differences in ranked distributions between groups (given sig≤0.05, 2-tailed) are observed for only 6 out of 36 characteristics (grey shaded rows in Table 1), confirms the tested hypothesis 1 (H1: *University teaching staff and employers share similar perspective on what competencies and attributes are important for employability*). Characteristics with significant differences are presented in Table 2.

The differences between employers' and teachers' importance assessment in the above table vary from 0,39 to -0.93 and can be described as not particularly high. However, they are statistically significant. The biggest rank differences are measured for *critical thinking, practical experience* and *work ethics*. Thereby *critical thinking* ranks within the first third of important characteristics for university teachers who rank it as more importan than the employers

*Table 2: Characteristics with observed significant differences*

| **Characteristic** | **Δ (employers – teachers)** | **MW sign.** | **Employers' Rank** | **Teachers' Rank** | **Rank difference** |
|---|---|---|---|---|---|
| Grade point average | -0,93 | 0,000 | 33 | 31 | 2 |
| Critical thinking | -0,53 | 0,000 | 25 | 12 | 13 |
| Public speaking | -0,59 | 0,000 | 28 | 20 | 8 |
| Practical experience | -0,69 | 0,000 | 29 | 18 | 11 |
| Attractive appearance | -0,61 | 0,002 | 35 | 34 | 1 |
| Work ethics | 0,39 | 0,017 | 16 | 25 | 9 |

do. *Practical experience* has also a high rank difference (11), and teachers rank it as moreimportant than the employers do. This is somewhat surprising given that universities are frequently and publicly criticised for not providing their students enough practical training opportunities and hands-on experience. Moreover, other research also shows that practical experience scores high in importance with employers (e.g. Andrews & Higson, 2010).

Interestingly, when evaluating the importance of characteristics the teachers valued 20 out of 36 characteristics higher than the employers did. If the first four ranked characteristics for the employers are more closely observed (Table 1), the following can be concluded: qualitatively, characteristics 1 and 4, i.e. *problem-solving* and *learning skills* are related. For our purposes, we can label them "applied (practical) intelligence". The same is true for characteristics 2 and 3, i.e. *enthusiasm and motivation* and *willingness to learn*, which can be referred to as the "psychological" categories. Characteristics 1 and 4 are also quantitatively close to one another, and characteristics 2 and 3 are even closer.

If we look closely at the rated and ranked characteristics, the following question arises: shouldn't *problem-solving* skills (rank 1) be similarly ranked as *critical thinking* (rank 25), *making judgments based on limited information* (rank 24*), opportunity recognition* (rank 19)? Yet, in our sample, these characteristics are far apart in importance. Even *innovativeness*, whose crucial importance is frequently highlighted, is not ranked very high (rank 13). How is this inconsistency to be interpreted?

A possible answer is the following: despite of wishes, the reality of many – if not all – of employers is that limited resources (time, money) are available for dealing with long-term, complex, strategic issues. This is probably why the most highly rated quality of *solving problems* possibly means immediate, daily problems. Such problems do not require special innovativeness, originality or critical thinking. It seems that the characteristic ranked first, i.e. *problem-solving skill* is not necessarily viewed, if at all, by the employers as a highly cognitive activity; daily operations require *enthusiasm and motivation*. Even this "psychological" category has its own, a "less valued" sub-category: *diligence, discipline and persistence* are significantly lower ranked than *enthusiasm and motivation*. Here too, it is about more long-term categories, required for complex problems; for immediate problems suffices, possibly ephemeral – enthusiasm.

Another aspect of contribution analysis is also interesting for consideration. Table 3 compares employers' and university teachers' assessment of HEIs' contribution to the development of individual employability characteristics. While in most of the cases, scores for the *importance* of employability characteristics hardly differ between university teaching staff and employers, they often differ significantly for the *contribution* of HEIs to the development of these characteristics.

The results imply that, by and large, employers and university teachers do give the same importance to individual characteristics; however, they rate the contribution of teaching at HEI to facilitating these characteristics differently, i.e. employers give in general lower values for HEI contribution ($M = 4.82$) than the university teachers do ($M = 5.82$). This is the case for 33 out of 34 listed employability characteristics. However, employers and university teachers agree that universities contribute most to the acquisition of *subject knowledge*.

*Table 3: Employers' and university teachers' assessment of HEIs' contribution to development of individual characteristics*

| Characteristic | Employers' Mean | Teachers' Mean | Δ | p Value* | Employers' Rank | Teachers' Rank |
|---|---|---|---|---|---|---|
| Subject knowledge | **4.82** | **5.82** | -1.00 | 0.000 | 1 | 1 |
| IT usage | **4.63** | **5.48** | -0.85 | 0.000 | 2 | 3 |
| Foreign languages | **4.55** | **5.02** | -0.47 | 0.025 | 3 | 6 |
| Teamwork | **4.54** | **5.15** | -0.62 | 0.004 | 4 | 4 |
| Public speaking | **4.47** | **5.63** | -1.15 | 0.000 | 5 | 2 |
| Written communication | **4.39** | **4.72** | -0.33 | 0.159 | 6 | 16 |
| Willingness to learn | **4.38** | **5.12** | -0.74 | 0.001 | 7 | 5 |
| Discipline and persistence | **4.37** | **4.75** | -0.38 | 0.104 | 8 | 13 |
| Diligence | **4.34** | **4.75** | -0.41 | 0.102 | 9 | 14 |
| Work under pressure | **4.19** | **4.55** | -0.36 | 0.122 | 10 | 20 |
| Establishing and maintaining interpersonal contacts | **4.16** | **4.76** | -0.61 | 0.006 | 11 | 11 |
| Learning skills | **4.08** | **4.87** | -0.79 | 0.000 | 12 | 8 |
| Problem solving | **4.02** | **4.78** | -0.76 | 0.000 | 13 | 9 |
| Adaptability to change | **3.89** | **4.56** | -0.67 | 0.002 | 14 | 19 |
| Use of social networks | **3.86** | **4.26** | -0.40 | 0.080 | 15 | 24 |
| Independence | **3.84** | **4.65** | -0.81 | 0.000 | 16 | 18 |
| Desire to achievement | **3.80** | **4.71** | -0.91 | 0.000 | 17 | 17 |
| Work ethics | **3.72** | **4.76** | -1.04 | 0.000 | 18 | 12 |
| Self-confidence | **3.72** | **4.42** | -0.71 | 0.000 | 19 | 22 |
| Critical thinking | **3.70** | **4.73** | -1.03 | 0.000 | 20 | 15 |
| Strong orientation to achievement | **3.66** | **4.35** | -0.69 | 0.001 | 21 | 23 |
| Negotiation skills | **3.64** | **4.12** | -0.49 | 0.017 | 22 | 29 |
| Enthusiasm and motivation | **3.60** | **4.53** | -0.94 | 0.000 | 23 | 21 |
| Persuasion | **3.57** | **3.99** | -0.42 | 0.026 | 24 | 31 |
| Application of acquired knowledge | **3.54** | **4.93** | -1.40 | 0.000 | 25 | 7 |
| Practical experience | **3.52** | **4.77** | -1.25 | 0.000 | 26 | 10 |
| Thinking "outside the box" and innovativeness | **3.49** | **4.20** | -0.71 | 0.001 | 27 | 26 |
| Making judgements based on limited information | **3.45** | **4.21** | -0.76 | 0.000 | 28 | 25 |
| Taking initiative | **3.45** | **4.19** | -0.73 | 0.000 | 29 | 27 |
| Opportunity recognition | **3.43** | **4.15** | -0.72 | 0.000 | 30 | 28 |
| Intelligence | **3.39** | **4.02** | -0.64 | 0.001 | 31 | 30 |
| Sense of humour | **2.61** | **2.76** | -0.16 | 0.358 | 32 | 33 |
| Aggression | **2.54** | **2.11** | 0.42 | 0.018 | 33 | 34 |
| Achievement in sport | **2.53** | **2.91** | -0.38 | 0.110 | 34 | 32 |

*Note: p-value is given for the Mann-Whitney test.*

The largest assessment differences (delta average) between employers and university teachers are detected for *application of acquired knowledge* (1.40), *practical experience* (1.25), *public speaking* (1.15), *work ethics* (1.04) and *critical thinking* (1.03). High value for application of acquired knowledge by employers, because of its relation to workplace productivity and critical thinking, is not surprising and is consistent with other findings (e.g. Rayner & Papakonstantinou, 2015; Jones, 2009; Rae, 2007).

Even though employers and university teachers estimate HEIs' contribution to facilitation of individual characteristics differently, when comparing the ranks of characteristics for both groups, similarities are obvious: employers and university teachers agree on four out of five characteristics to the development of which HEIs contribute most, i.e. *subject knowledge, IT usage, teamwork and public speaking*. Furthermore, the biggest differences in ranks are observed for *application of acquired knowledge* (18) and *practical experience* (16), where university teachers value their contribution higher than the employers, and *work under pressure* (10) where employers value HEI contribution higher than university teachers do.

Statistically significant differences in ranked distributions between groups (given sig≤0.05, 2-tailed) are observed for 23, out of 34 characteristics (grey shaded rows in Table 3). When comparing minimum and maximum average values, minimum for the importance criteria is related to *aggression* (both employers and teachers attitude), while for contribution criteria, it is related to *achievement in sport* for the employers and, again, *aggression* for the university teachers (Table 4).

Considering the average values, employers do not seem very satisfied with how much HEIs contribute to the development of students' employability characteristics. The correspondence of significance and contribution among university teachers is 81%, while for the employers it is lower and amounts to 70%, signaling that employers assess that HEIs contribute less to the development of employability characteristics than university teachers believe it to be. Thus, university teachers in our survey seem to be overconfident of their contribution to the facilitation of important employability characteristics.

For the purpose of further testing the hypothesis H2 (*Higher education institutions significantly contribute to the development of competencies and attributes that employers value)*, the Importance-Performance Analysis (IPA) is used to plot employers' assessment of importance and contribution (performance) on a two-dimensional

*Table 4: Maximal and minimal average values by employers and university teachers (importance and contribution)*

| Assessment criterion | Group | Min | Max | Average |
|---|---|---|---|---|
| Importance | Employers | 2.56 | 6.27 | 5.43 |
| | Teachers | 2.79 | 6.27 | 5.51 |
| HEI contribution | Employers | 2.53 | 4.82 | 3.82 |
| | Teachers | 2.11 | 5.82 | 4.49 |
| Importance/contribution | Employers | 99% | 77% | 70% |
| | Teachers | 76% | 93% | 81% |

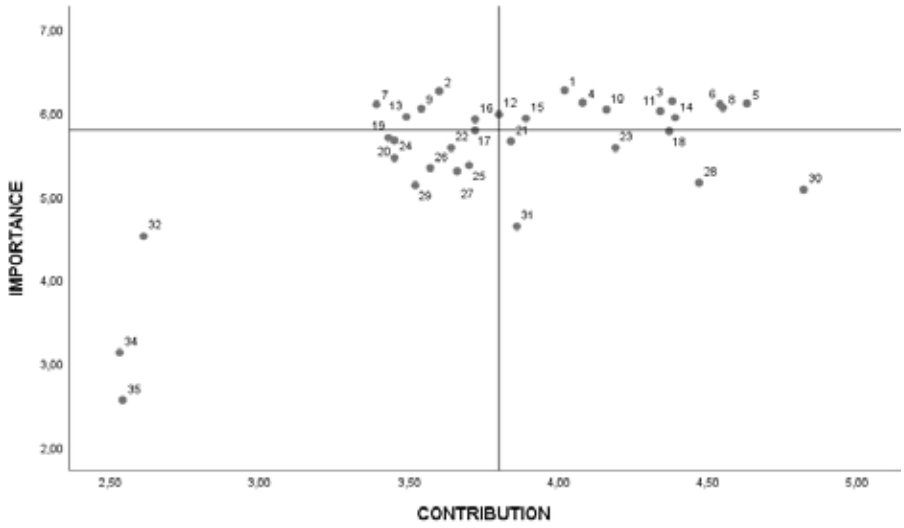


*Figure 1: IPA matrix of employability characteristics – employers' perspective*

grid matrix. Importance values are on the vertical axis, while performance values are on the horizontal axis. The matrix helps to identify stronger and weaker characteristics more clearly. The characteristics are denoted in the matrix (Figure 1) with the number representing the importance rank assessed by the employers (see Table 1, "Employers, rank").

The lower left quadrant contains eleven characteristics, which are not well developed during higher education, but they are of low priority for the employers. The lower right quadrant contains five employability characteristics, which students acquire well during higher education, but employers consider these employability characteristics of low priority. These two quadrants are not in the focus of attention of this research. The upper right quadrant reflects the level of optimal performance and contains twelve characteristics. It is comprised of employability characteristics that employers consider important and which are developed strongly during higher education. Finally, the upper left quadrant contains characteristics, where considerable efforts are necessary. According to data and matrix, there are six characteristics where employers think improvement is needed: *enthusiasm and motivation, intelligence, application of acquired knowledge, thinking outside the box/innovativeness, work ethics and self-confidence*. Employers assess these characteristics as important; however, they do not estimate that HEI contributes substantially to the development of these characteristics in students. This means that university teachers have to put additional efforts in order to improve them.

Since there are over one-third (all together twelve) characteristics, placed in the upper right quadrant (high importance, high performance/contribution) as opposed to only six characteristics in which HEIs are low performing, we can consider the second hypothesis (H2: *Higher education institutions significantly contribute to the development of competencies and attributes that the employers value*), to be confirmed, as well. This does not mean that HEIs should be satisfied with the existing situation

(employers assess that HEIs' contribution for 18% i.e. six important characteristics is too low). If one of the main HEIs' goals is to "create" employability, then HEIs need to consider how to use their own resources wisely and efficiently in order to create and strengthen students' employability characteristics in accordance with the priorities set by the employers.

## 5. CONCLUSION

While employers and university teachers share similar perceptions of the importance of employability characteristics, they differ in their assessment of HEI contribution to the development of these characteristics. Employers are considered the most influential stakeholder in higher education (Tsitskari et al., 2017) and their voice is of significant relevance because they do not only convert the employability of a graduate into employment, but are a valuable source of information, too (Ferns, 2012). Employers and university teachers in Croatia share some similarities, regarding how they view employability skills, but value the contribution of HEIs to the development of these characteristics differently. There is a real need to address gaps between employer expectations and university learning outcomes by developing a common understanding and sharing the perceptions of valuable employability characteristics through university-business associations or councils. However, employers as crucial stakeholders need to be more realistic about how far HEIs can be expected to bridge the gap, and be aware of their own role in providing on-the-job learning and development for new employees.

This research points out the need for HEIs to find the optimal balance between knowledge acquisition and skills development. In order to achieve that, HEIs need to embed employability within the curriculum, either as separate modules, or across the study program, as well as to make available and promote the work-based learning, formal internships, part-time employment and encourage students to make the most of extra-curricular opportunities. Embedding employability into HEIs should be the key priority of government, HEIs and employers, since it can bring significant benefits and contribute to economic growth. In doing so, HEIs will produce qualified, flexible and employable graduates, able to meet the constantly changing demands of modern businesses.

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# POSTOJI LI RAZLIKA U PERCEPCIJAMA IZMEĐU POSLODAVACA I SVEUČILIŠNIH NASTAVNIKA O ZAPOŠLJIVOSTI DIPLOMIRANIH STUDENATA U HRVATSKOJ?

*Sažetak*

*Zapošljivost diplomiranih studenata se smatra ishodom, čijem bi ostvarenju sveučilišta trebala težiti. Nadalje, istraživači rijetko razlikuju "završenost studija kao stanje nakon završetka kolegija te zapošljivost kao ekonomsku vrijednost studenta u istom vremenu" (Glover, Law & Youngman, 2002:293). U ovom se radu želi analizirati zapošljivost nakon visokog obrazovanja, iz perspektive poslodavaca i sveučilišnih nastavnika. U njemu se naglašavaju najviše vrednovane kompetencije i atributi, vezani uz zapošljivost te prikazuje zanimljiva slika o percepciji karakteristika zapošljivosti, koju imaju sveučilišni nastavnici i poslodavci. U empirijskom istraživanju su korištena 134 odgovora poslodavaca (hrvatskih poduzeća svih veličina) te 124 odgovora sveučilišnih nastavnika, zaposlenih na Sveučilištu u Rijeci te Sveučilištu Josipa Jurja Strossmayera u Osijeku. Rezultati ukazuju da sveučilišni nastavnici i poslodavci imaju slične poglede na karakteristike zapošljivosti, ali drugačije gledaju na znanja, vještine i atribute, značajne za zapošljivost, kao i na doprinos visokog obrazovanja unapređenju navedenih atributa. Naglašava se nužnost suradnje i komuniciranja između hrvatskih sveučilišta, poslodavaca te poslovnih udruga u području razvoja akademskih sadržaja i njihova podučavanja.*

**Ključne riječi:** *sveučilišni nastavnici, poslodavci, završenost, zapošljivost, kompetencije, partnerstva u visokom obrazovanju*