UNIVERSITY OF TURKU

This is a self-archived – parallel-published version of an original article. This version may differ from the original in pagination and typographic details. When using please cite the original.

AUTHOR	Ramström, Joachim
TITLE	Enhancing working life competences in higher education – generic skills and multiprofessionality in the Junior Achievement company program
YEAR	2016
DOI	10.21125/inted.2016.1441
VERSION	Final draft
CITATION	Ramström, Joachim: Enhancing working life competences in higher education – generic skills and multiprofessionality in the Junior Achievement company program. INTED2016 Proceedings: 10th International Technology, Education and Development Conference Valencia, Spain. 7-9 March, 2016, Pages: 2096-2107 ISBN: 978-84-608-5617-7, ISSN: 2340-1079. Publisher: IATED

ENHANCING WORKING LIFE COMPETENCES IN HIGHER EDUCATION – GENERIC SKILLS AND MULTIPROFESSIONALITY IN THE JUNIOR ACHIEVEMENT COMPANY PROGRAM

Joachim Ramström
Åbo Akademi University
Turku, Finland

Proceedings from the 10th International Technology, Education and Development Conference, Valencia, Spain, 7-9 March 2016.

Abstract

The concept of employability is getting increasing attention among different stakeholders. Especially in Europe the relationship between education and workplace is a core focus of the entire higher education sector, not least because of a fear of decreasing employment options and high unemployment among the youth. This research focuses on employability skills in the 10 ETCs Junior Achievement Company program, and the perceptions of involved teachers of the employment skills trained during the program.

Semi structured thematic interviews was conducted with 15 teachers involved in the junior achievement company program. For comparative purposes, half of the respondents are teachers from higher education and half of are teachers at the gymnasium level.

Key Words : employability skills, teacher perceptions, junior achievement

1 INTRODUCTION

Finland is reforming its core national curriculum for education in 2016. One argument is a need to provide young people with competencies needed in a rapidly changing society and working life [1]. There is a fear that the focus in the current curriculum is not matched by requirements in the future [2]. As a consequence, seven broad competencies have been working life competences has the implicit aim of increasing the employability of young people.

The concept of employability is getting increasing attention among different stakeholders [3]. Especially in Europe the relationship between education and workplace is a core focus of the entire higher education sector [4], not least because of a fear of decreasing employment options and high unemployment among the youth [5]. Furthermore, concerns have been raised regarding the gap between graduate employability skills and the requirements of prospective employers [6] [7] [8] [9] [10] [11]. For instance one report found that 65% of companies in felt that graduates are not prepared for work [12].

The education sector has responded with different efforts in order to enhance the employability of their students [13] [14] [15] [16] [17] [18]. Also many non-government actors have started providing support. This paper focuses on one program offered by Junior Achievement, the Junior Achievement Company program, and how employability takes shape in this program.

2 THE CHANGING WORKING LIFE

There has been a dramatic change in working life and how work is conducted. Traditional industrial jobs are disappearing, being replaced by knowledge and information intensive work [19] [20]. Completely new forms of jobs and work forms are emerging [21]. Our understanding of how we work, where we work and when we work is changing. Many researchers claim that new skills and competencies are needed in order to survive in the information economy (see for instance [22]).

Working life is increasingly characterized by almost continuous change and turmoil and high intensity of work [23]. This requires not only completely new work skills, such as information-processing skills, high-level cognitive skills and interpersonal skills [24], but also skills related to regulating thinking, actions and life in general [25] [26]. Some companies are raising concerns about the lack of skills of young workers [27], even going as far as saying that a "majority" of young people are unprepared to succeed at work [28] [29]. Lay-off will also be a reality employees during their career, probably several times during their career [30].

The changes taking place in working life has initiated a discussion about the skills needed in future working

life as well as the role of education in providing these skills to young people (see for instance [31] [32] [33]. There seem to be a consensus growing that the changes taking place in the economy and working life means that jobs and employment will be increasingly unavailable unless young people possess the right employability skills [34]. What used to be "nice to have" skills are quickly becoming "must have" skills for employment [35] [36]. Hence, employability has become a part of education on many levels [37].

2.1 Literature review of employability

Employability is a multifaceted concept, and there is no clear consensus about its meaning [38] [39]. The concept has not been clearly defined and there is no agreement on what the actual employability skills are and how employability could be assessed [40]. There are also different views on employability skills between employers, academic and government bodies [41].

In the broadest sense, employability refer to an individuals chance of finding and acquiring (initial employment), keeping a job (maintaining employment) as well as being able to handle the transition from one job to within or outside the organisation (obtaining new employment) [42] [43] [44]. More specifically speaking, employability concerns specific skills and competences to satisfy employers needs [45]. Peck and Theodore [46] notes that employability refers to an individuals characteristics, attitudes to work and behaviour on the job. It is also about a willingness to learn, to complete the work at hand well, attitude towards work, and behaving according to requirements of the profession [47]. It can also be an aptitude to carry out work and tasks properly, and an individuals ability to deal with different functions found in the labour market [48]. In other words, employability skills are the non-technical skills, knowledge and understandings that are necessary to gain employment, to enter the and to participate effectively in the workplace. [49] [50].

For the purpose of this paper, employability is broadly understood as an overarching capability which has an impact on an individuals ability to function and perform in a workplace [51]. Employability skills refer more to a set of personal qualities and personal habits, that makes a person attractive for potential employers.

2.2 Employability skills

Even though different employability skills are widely considered as a key to creating employable graduates [52] much controversy surrounding them. There are difficulties identifying skills (see for instance [53] [54], assessing future skill needs [55] [56], defining skills (see for instance [57] [58] [59], measuring skills or outcomes of skills training [60] [61] [62] as well as how to develop and transfer skills [63] .

In order to generate an overview on what is currently considered important employability skills, there are several reviews and empirical studies identifying employability skills. The main results from the studies and reviews are summarized and compared in Table 2 and Table 3. Table 2 summarizes examples of skills/ skills frameworks from research studies. Table 3, on the other hand, summarizes examples of skills/ skills frameworks from various government and non-government association papers, handbooks a credentials.

To allow a comparison of different frameworks and typologies, some categorizations were done based on similarities between concepts. For instance one category used in the comparison is learning, which captures various references to learning in different papers, such as "life-long learning" "commitment to learning" learning from x, y" . Another category created for the comparison is communication, which captures notions such as "ability to communicate orally", "to make oneself understood orally" "to express oneself clearly" and so on. Furthermore, skills and personality traits are not compared in separate tables, instead both skills and personality traits are summarized in the same table.

- INSERT TABLE 1 HERE -
- INSERT TABLE 2 HERE -

Although the different typologies and frameworks cannot be compared to each other directly, there are still some elements they have in common. For instance all or most of the papers highlight skills related to problem solving, communication, teamwork, cooperation, professionalism, learning, time and self management as well as skills related to ICT, technology and digital proficiency. Teamwork includes notions such as collaboration, connecting with other people and social skills. Problem solving is often discussed in relation to decision making and critical thinking. Professionalism seems to be a somewhat broad collection of different aspects, such as dress, responsibility, reliability, work ethic, tardiness, dependability and ethics/morals. Self management is about being effective, confident, and managing over both the career and work life. . Learning skills is both about the capacity to learn as well as willingness to learn, often in order to develop and have self direction. ICT, technological and digital relates skills in applying information

technology, using new technologies, managing information and the digital world.

Skills mentioned in some of the papers are for instance organizational, creativity, literacy, personal attributes, leadership, dealing with uncertainty, initiative taking, listening, empathy and diversity. Organizational skills is mentioned in the context of planning, coordinating and observing, and thinking. Creativity is related to the capability of being imaginative, innovative, curious and entrepreneurial. Literacy/numeracy is seen as important in order to solve problems, to understand written instructions, and in an ability in applying some skills in relevance to the post. The personal attributes relates to enthusiasm, confidence, working under pressure, dealing with uncertainty and embracing differences and tolerance. When discussing leadership, the discussion is both about leading as well as accepting leadership. Empathy, in turn, is about the ability to be compassionate, attentive and being able to relate to other people, including for instance customers. Diversity skill is understood as skill to be flexible, adaptive and dealing with differences.

While previous studies focusing on employability skills in higher education have focused on different target groups, such as working life, various interest groups and associations and educational planners, there is less knowledge about the views of teachers. For instance Sumanasiri et al. [64] call for more research to understand teacher perceptions. Previous studies focusing on higher education organisations have also covered mostly the organisations' own range of courses and curricula, not taking into consideration a growing number of non-profit and independent organisations offering courses and programs to higher education students. Knowledge about the teachers perceptions about employability skills offered by programs and courses from non-profit and independent organisations provide us with information about alternative ways of increasing student employability skills in higher education. Hence, the purpose of this study is to explore the perceptions of teachers involved in courses offered by non-profit and independent organisations, specifically Junior Achievement, concerning what employability skills the teachers believe are trained during the Junior Achievement company program. Not only gives the study an insight into the Junior Achievement company program from an employability perspective, the study also offers an insight into what teachers perceive as important working life skills.

The following research questions guide the research:
1) what are key employability skills trained during the course according to the teachers?
2) what differences are there in the perceptions of teachers from higher education and gymnasium?

This study is grounded in a qualitative research approach, and based on interviews with 8 higher education and 7 gymnasium level teachers, representing different subject areas and high schools and gymnasiums.

3 METHODS

The design of this qualitative and explorative research draws on methods and procedures used in various qualitative empirical studies, for instance [65] [66] [67] [68]. It also draws on research on qualitative methods (for instance [69] [70] [71] [72] [73] [74].

3.1 The case - Junior Achievement Company program

Junior Achievement (henceforth JA) dates back to 1919, with a goal of increasing entrepreneurship in society, improving working life competences of young people and financial literacy [75]. Globally, over 10 million young people take part in JA programs. JA was brought to Finland in the middle of the 1990s. In 2013 in Finland, more than 35000 young people took part [76]. This study focuses on the JA company program. The JA Company program lasts for 8-9 months, usually starting in September and ending in April. During the program, students form teams and each team founds a JA student company. The company is founded with real funds and runs for one academic year, after which the company is liquidated. Each JA company team is coached by one or several JA coaches.

The 10 ECTS company program was at the time of interviews (2014-15) offered to higher education students only in Southwestern Finland. The first program run in 2004. In autumn 2015 and spring 2016 an additional 15 universities throughout Finland started offering the program under the name of JA Start-up. The JA company program of 2014-15 in Southwestern Finland stared in September and ended in May. Students from Turku University, Turku university of applied sciences and Humak university of applied sciences took part. Students with different backgrounds were organised into multiprofessional teams of 5-6 students. Some 50 students finished the program, and they were coached by 4 teachers during the whole year. The JA company program was offered in a handful of gymnasiums in Southwestern Finland. Typically 5-10 second year took part, being coached by one teacher during the whole year.

3.2 Participants

Respondents were sampled theoretically. Interviews were conducted with 8 teachers from higher education and 7 teachers from gymnasium. The teachers represented different universities and gymnasiums, and different subjects. Selection of respondents was based on the following criteria. At the time of interviews, the Junior achievement program was offered in higher education only in Southwestern Finland. All higher education teachers that had been or was involved in the program was interviewed. Four of the higher education respondents were teaching in the 2014-15 program, the rest of the respondents had been teaching the course previously. All of the gymnasium teachers were teaching the course in 2014-15.

The regional YES center of Southwestern Finland provided a list of gymnasiums running the company program. Each gymnasium offering the programm in Southwestern Finland was included in the sample. To get more respondents, the greater Helsinki region YES center provided further contacts. The motivation for including gymnasium teachers in the stud was to allow a comparison between the views of teachers who teach students who aim at enrol higher education after graduation with teachers who teach students who will enter working life upon graduation.

Table 3 List of respondents

Higher Education	Teachers own subject area	Type of HEI
[HEPP]	Business administration	Business college
[HEHA]	Cultural management	University of applied science
[HEMV]	Design and art	University of applied science
[HEVR]	Business administration	University of applied science
[HEPS]	Management and entrepreneurship	University
[HETP]	Management and entrepreneurship	University
[HEMJ]	Entrepreneurship	University of applied science
[HEPK]	Creative industries	University of applied science

Gymnasium	Teachers own subject area
[GJA]	History and social studies
[GRL]	Mathematics / Information technology
[GTK]	Entrepreneurship
[GAG]	Principal
[GVU]	Entrepreneurship
[GMM]	Entrepreneurship
[GJK]	Religion

3.3 Materials and data gathering

Data was collected though semi-structured interviews [77], to allow a level of flexibility. The interviews were conducted between December 2014 and February 2015. A total of 15 interviews were conducted. The respondents were contacted by e-mail with information about the research project and the request to conduct an interview. Depending on the mother tongue of the respondents, interviews were conducted in either Finnish or Swedish. All interviews were recorded digitally. The interviews were conducted at the informants' workplaces, and all the interviews lasted between 40 and 60 minutes.

An interview guide with structured thematic questions was prepared in advance (see Appendix 1). The questions were not send to the respondents in advance, to avoid the risk of respondents giving "standard answers" to the questions if given time to acquaint themselves with them beforehand. In addition to general introductory questions, the interview guide had four themes 1) background 2) skills in junior achievement 3) working life skills 4) results and the future. Each theme contained 4--6 open ended questions.

3.4 Analysis procedures

According to [78], there are no direct rules for analyzing qualitative data. In order to ensure high quality of the analysis process, the general rules of [79] has been used. The data was analyzed in four phases. The first phases consisted of listening to the recordings several times. Notes were taken while listening, in order to get an overall view of the data. During the first phase some overall topics and themes emerged. Based on the notes relevant parts of the data was then transcribed word for word. The first phase of the analysis process was ended with labelling and indexing the transcribed data. During the second phase of the analysis process, the transcribed data was read and re-read. As the data became more familiar an initial open coding process was conducted. Similar pieces of data were given codes based on similarity, reference to the theoretical framework or various themes. Hence, a first organisation of the data was carried through. A more focused coding process took place during the third phase of coding, coding data according to references to employability skills. This part of the process identified several important employability skills. The data was then sorted and cut into smaller segments and arranged according to identified skills. At the same time the amount of data was greatly reduced. In addition to searching for patterns in the data, discoveries were also identified based on frequency, inconsistency or absence of discoveries that had been expected. At the end of the third phase, each emerging skills was given labeled. In the fourth phase, content analysis [80] [81] was used to make meaning of the teacher's stories about employability skills. Finally, the outcomes of the analysis was related to the theoretical framework (Table 1 and Table 2) and discussed by the authors.

4 FINDINGS AND CONCLUDING DISCUSSION

From the empirical data it is possible to identify and distinguish four employability skills that most teachers in perceive are trained; self-directedness, group or team work, courage and self confidence as well as communication and interaction (see Table 4). These four were most mentioned in both samples, although in slightly different order. In the higher education sample, there were most references in the data to team work, which was mentioned by seven of the respondents (n=7) and occurs 35 times in the data (f=35). In the gymnasium sample, there were most references in the data to self-directedness (n=6, f=31). Other employability identified in both samples are responsibility, networking, and time management. However, the frequency and by how many respondents varies greatly between the two samples. Furthermore, there are some skills that are unique to each sample. Life management skills and ability to view from different perspectives is only found in the gymnasium sample, while skills related to customer contacting and idea testing, listening and dealing with uncertainty is only found in the higher education sample

Gymnasium teachers consider creativity as an important skill, and the higher education teachers innovation and problem solving skills. Concerning these two skills, it is likely that it is more a difference of vocabulary than a difference of the meaning they give to the skill.

Table 4 - Comparison of teacher perceptions of skills

Gymnasium	Higher education
Self-directedness (f=31, n=6)	Team work (f=35, n=7)
Group work, working together (f=24, n=6)	Self-directedness (f=24, n=6)
Courage, self confidence (f=23, n=5)	Communication and interaction (f=22, n=6)
Communication, interaction (f=14, n=3)	Courage (f=21, n=7)
Responsibility (f=9, n=2)	Customer contacting and idea testing (f=18, n=7)
Life management (f=9, n=3)	Innovation and problem solving skills (f=16, n=4)
Creativity (f=8, n=3)	Networking (f=11, n=5)
Failing (f=7, n=4)	Responsibility (f=10, n=5)
View from different perspectives (f=6, n=2)	Time management (f=8, n=3)
Networking (f=6, n=4)	Listening (f=7, n=2)
Organising (f=6, n=2)	Failing (f=6, n=4)
Time management (f=6, n=3)	Deal with uncertainty (f=6, n=3)

The first research question in this study was what the perceptions of teachers are regarding employability skills in the company program. As summarized in table 4, we obtained four employability skills or attributes that all or most of the teachers perceive are trained during the program, i.e. self-directedness, team/group work, courage and communication/interaction. Other employability skills trained during the program are ability to deal with failures, responsibility, time management, networking, creativity and innovation.

The second research question was what differences there are in the perceptions between teachers from higher education and gymnasium. There are some differences in the skills identified by the two groups of teachers. Higher education teachers identified customer contacting and idea testing, problem solving skills,

listening and dealing with uncertainty. Gymnasium teachers brought up life management, viewing from different perspectives and organizing.

One explanation that gymnasium teachers did not identify customer contacting and idea testing with customers is probably doe to the fact that higher education teachers are more commonly cooperating with working life in different parts of their work. For instance students are more in contact with working life the further into their studies they are, there are research projects focusing on working life, and some courses may involve working life in different ways, for instance through various learning projects. Another possible explanation is that customer contacting is a crucial part of enterprising and starting up a company, and an central part of the program. Building on this explanation, it is interesting that gymnasium teachers did not identify this skill. One explanation might be that gymnasium teachers believe that most of their students will continue to higher education after graduation, and will therefore in fact not start their own company, while students in higher education are much more likely to start their own company during or after graduation.

Some of the differences between the two groups can be ascribed to the use of different vocabulary. For instance gymnasium teachers were consistently taking about group work, while higher education teachers consistently talked about team work. Also, gymnasium teachers were on a general level discussing the skill for organizing, higher education teachers more specifically identified organizing in the context of teams, tasks and roles. As work in business life is increasingly done in teams, a skill for organizing in fact refers to organizing various aspects related to work in teams.

Somewhat surprising, the skills and attributes identified by gymnasium and higher education teachers to not after all that different. We expected there would be greater differences since gymnasium education foremost prepares students for entry into higher education, while higher education students are on the bring of entering into working life. In fact, gymnasium teachers openly say that the only purpose of gymnasium is the students examination/degree, which is then used as entry qualification for higher education.

When relating to the theoretical framework, findings in this study would add some skills and attributes to the already quite long list of key employability skills and attributes. This raises a concerning issue. Typologies and frameworks on key employability skills and attributes start to be so comprehensive that they risk becoming self-defeating [82]. Also, when examining the backgrounds of the teachers involved in this study, a large percentage has a business background or teaches a business subject. And even though the four most mentioned employability skills and attributes are identified by most of the respondents, regardless of their own subject, the findings raises the possibility that the employability skills identified in this study are more appropriate for work in the business sector. Hence, if for instance including many teacher from another subject area, there is a chance that even more new skills would be added to the list. This point is also raised by Clark [83] who note that employability skills will vary in importance depending on the occupation, tasks and occupational profile. It has caused Knight [84] to call employability a "Chameleon concept".

In a study by Holmes [85], several employability frameworks developed in the 1990s are compared. Somewhat surprisingly, considering that the economy and working-life is going through radical changes [86], most of the skills identified in the 90s are the same skills identified in frameworks and typologies developed after 2010. Why are skills requirements remaining the same, even though many traditional jobs are disappearing for good and new jobs and roles are emerging [87]? Rotherham and Willingham [88] offers a possible explanation. Even though competence requirements have remained the same, a major difference is that success in the work place requires and depends these skills. In the 90s some of the skills were classified as "nice to have", now are considered "must have" competences to succeed in working life.

The Junior Achievement company program runs outside of the higher education and gymnasium own curricula. An interesting aspect is to what degree the teaching methods used in the company program are also used by the teachers in their own core subjects. It is interesting to notice that all of the respondents specifically stressed the point that during the program it is up to the students to find all the answer by themselves. Such an approach provides a fruitful ground for developing student self-directedness. To what extent teachers take this approach in their "normal" would be an interesting point of departure for further studies. Furthermore, to what extent does institutional pressures from the rest of the own organisation prevent the teachers from applying the teaching methods of the company program in the "normal" teaching? Institutions are known to provide different kinds of pressure mechanisms preventing change and providing stability and meaning to for instance organisations [89].

REFERENCES

[1] Halinen, I. (2015) OPS 2016 - Laaja-alainen osaaminen, oppiaineet ja monialaiset oppimiskokonaisuudet. http://www.oph.fi/ops2016/materiaalit. Accessed Aug 31, 2015.

[2] NBE, National board of education (2015). Basic education of the future – Let's turn the trend! http://www.minedu.fi/OPM/Verkkouutiset/2015/03/tomorrows_school.html?lang=en. Accessed Sept 15, 2015.
[3] [38] Rothwell, A. and Rothwell, F. (2008). Self-perceived employability: Construction and initial validation of a scale for university students. Journal of Vocational Behavior, 73, 1-12.
[4] [40] Llinares, L. (2013.) Generic skills training in higher education: promotion of employability as labour integration strategy. Proceedings: 5th conference on education and new learning technologies.
[5] Windmill, B., Martinez, L. and Torres, A. (2012). Teaching business and employability skills in english: a practical example. Proceedings: 5th conference of education, research and innovation, p. 1083 -1092.
[6] Andrews, J. and Higson, H. (2008). Graduate employability, 'soft skills' versus 'hard' business knowledge: a European study. Higher Education in Europe, Vol. 33 No. 4, pp. 411-422.
[7] Boden, R. and Nedeva, M. (2010). Employing discourse: universities and graduate 'employability. Journal of Education Policy, Vol. 25 No. 1, pp. 37-54.
[8] [61] [63] Cranmer, S. (2006). Enhancing graduate employability: best intentions and mixed outcomes. Studies in Higher Education, Vol. 31 No. 2, pp. 169-184.
[9] Kaur, G. and Singh, G. (2008). Malaysian graduates' employability skills. UNITAR E-JOURNAL, 4 (1)
[10] Pool, L.D. and Sewell, P. (2007). The key to employability: developing a practical model of graduate employability. Education + Training, Vol. 49 No. 4, pp. 277-289.
[11] Rae, D. (2007). Connecting enterprise and graduate employability: challenges to the higher education culture and curriculum? Education + Training, Vol. 49 Nos 8/9, pp. 605-619.
[12] Mourshed, M, Patel, J. and Suder, K. (2014). Education to employment: Getting Europe's youth into work. McKinsey: McKinsey.
[13] Oprean, C. (2007). Adequately Responding to "Reform" and "Anti-Reform" Pressures in the Romanian Higher Education System under the Bolgna Process. Higher Education in Europe, 32(1): 91-97
[14] Tynjälä, P., Välimaa, J. & Sarja, A. (2003). Pedagogical perspectives on the relationships between higher education and working life. Higher Education, 46:147-166.
[15] Green, W., Hammer, S. and Star, C. (2009). Facing up to the challenge: why is it so hard to develop graduate attributes. Higher Education Research and Development, 28(1), 17-29.
[16] [32] [82] [85] Holmes L. (2013). Competing perspectives on graduate employability: possession,position or process? Studies in Higher Education, 2013 Vol. 38, No. 4, 538–554.
[17] Tomlinson, M. (2010). Investing in the self: structure, agency and identity in graduates' employability. Education, Knowledge and Economy, 4(2): 73-88.
[18] Tymon, A. (2011). The student perspective on employability, Studies in Higher Education, online p. 1-16.
[19] [24] [26] [86] [87] OECD (2013). OECD Skills Outlook 2013: First Results from the Survey of Adult Skills. OECD Publishing. http://dx.doi.org/10.1787/9789264204256-en. Accessed August 12, 2015.
[20] Arthur, M. B., DeFillippi, R. J. and Lindsay, V. J. (2008). On Being a Knowledge Worker. Organizational Dynamics, 37(4), 365-377.
[21] Lönnblad, J., & Vartiainen, M. (2012). Competences for New Ways of Working. Publication series B:12 University of Turku, Brahea Centre for Training and Development, University of Turku.
[22] Pellegrino, J. & Hilton, M. (2012) Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century. Washington, D.C. National Research Academy.
[23] Ruohotie, P. (2000). Oppiminen ja ammatillinen kasvu. Finland, Porvoo: WSOY.
[25] Wyn, J. (2009). Youth health and welfare: The cultural politics of education and wellbeing. Melbourne: Oxford University Press
[27] Cavanagh, S. (2008). Concept of 'Work Readiness' Credential Gains Supporters. Education Week. 12/3/2008, Vol. 28 Issue 14, p22-22.
[28] Casner-Lotto, J. and Barrington, L. (2006). Are they really ready to work? Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21st century workforce. New York: The Conference Board.
[29] Casner-Lotto, J., Rosenblum, E. and Wright, M. (2009). The ill-prepared US workforce: Exploring the challenges of employer-provided workforce readiness training. New York: The Conference Board.
[30] Van Horn, C., Zukin, C. and Allison K. (2014). Left Behind: The Long-Term Unemployed Struggle in an Improving Economy. New Brunswick, NJ: Rutgers University.
[31] Cai, Y. (2013). Graduate employability: a conceptual framework for understanding employers' perceptions. Higher Education, 65:457–469
[33] [39] [42]Forrier A. and Sels, L. (2003). The concept employability: A complex mosaic. International Journal of Human Resources Development and Management, 3, 102-124.
[34] Rotherham, A.J. and Willingham, D. (2010). "21st-Century" Skills: Not New, but a Worthy Challenge. American Educator, v34 n1 p17-20
[35] Cassidy, S. (2006). Developing employability skills: peer assessment in higher education. Education + Training, Vol. 48 No. 7, pp. 508-517.
[36] Raybould, J. and Sheedy, V. (2005). Are graduates equipped with the right skills in the employability stakes? Industrial and Commercial Training, Vol. 37 No. 5, pp. 259-263.
[37] Daniels, J. and Brooker, J. (2014). Student identity development in higher education: Implications for

graduate attributes and work-readiness. Educational Research, 56(1), 65–76.
[41] Bennett, N., Dunne, E. and Carre, C. (1999). Patterns of core and generic skill provision in higher education.Higher Education, 37, 71–93.
[43] Finch, D. F., Hamilton, L. K., Riley, B. and Zehner, M. (2013). An exploratory study of factors affecting undergraduate employability. Education + Tranining, 55(7), 681-70
[44] Ward V.G. (2015). What Is Employment Readiness? Employment Readiness Scale™ (ERS), http://www.employmentreadiness.info/node/3. Accessed October 13, 2015.
[45] Espinar, S., Nebot, A., Bernaldes, L. and SanchesCastineira, S. (2010). Graduate employability in Catalonia. From diagnosis to action. Revista de educación, 351, p.107 -137.
[46] Peck, J. and Theodore, N. (2000). Beyond employability. Cambridge Journal of Economics, (24(6)
[47] TEM, Työ- ja elinkeinoministeriö 2013. http://www.te-palvelut.fi/te/fi/. Accessed August 20, 2015
[48] Thijssen, J. (2000). Employability in het brandpunt. Aanzet tot verheldering van een diffuus fenomeen. Tijdschrift HRM, Vol. 1, pp.7–34.
[49] AGDE, Australian Government Department of Education (2013). What are employability skills? Commonwealth of Australia. http://www.myfuture.edu.au/getting-started/what-is-a-career/what-are-employability-skills. Accessed July 26, 2015.
[50] NWRC, National Work Readiness Council (2007). Work Readiness Credential. Tallahasse: Tallahassee. www.castleworldwide.com/nwrc/. Accessed November 22, 2015
[51] [52] [59] Jackson, D. and Chapman, E. (2012). Non-technical competencies in undergraduate business degree programs: Australian and UK perspectives. Studies in Higher Education Vol. 37, No. 5, p. 541–567.
[53] Appelbaum, E., Bernhardt, A. and Murnane. J. (2003). Low-Wage America: How Employers Are Reshaping Opportunity in the Workplace. New York: Russell Sage Foundation.
[54] [60] Handel, M. (2003). Skills Mismatch in the Labor Market. Annual Review of Sociology, Vol. 29, p.
[55] Beckett, D. and Mulcahy, D. (2006). Constructing professionals' employ-abilities: Conditions for accomplishment. In P. Hager & S. Holland (Eds.), Graduate attributes, learning and employability. Dordrecht, The Netherlands: Springer
[56] Winterton, J., Delamare-Le Deist, F. and Stringfellow, E. (2005). Prototype Typology of Knowledge, Skills and Competences. Thessaloniki: CEDEFOP.
[57] Attewell, P. (1990). What Is Skill? Work and Occupations, 17 (4), pp. 422-448.
[58] [88] Rotherham, A., & Willingham, D. (2009). 21st Century Skills: The Challenges Ahead. Educational Leadership, 67(1), 16-21.
[62] Lim, N-C. (2015). Towards an integrated academic assessment: closing employers' expectations? Education + Training, Vol. 57 Iss 2 pp. 148 - 169
[64] Sumanasiri, E., Yajid, M. and Khatibi, A. (2015). Review of Literature on Graduate Employability Journal of Studies in Education, Vol. 5, No. 3
[65] Yehuda, B. (2001). Employability: a substitute for loyalty? Human Resource Development Int.4(4)
[66] Garavan, T. and Murphy, C. (2001). The co‐operative education process and organisational socialisation: a qualitative study of student perceptions of its effectiveness. Education + Training, 43 (6
[67] Tomlinsona, M. (2007. Graduate employability and student attitudes and orientations to the labour market. Journal of Education and Work, 20 (4).
[68] Tomlinsona, M. (2008). The degree is not enough': students' perceptions of the role of higher education credentials for graduate work and employability. British Journal of Sociology of Education, 29 (1).
[69] [77] Dubois, A., & Gadde, L. E. (2002). Systematic combining: An abductive approach to case study. Journal of Business Research, 55(1), 553−560.
[70] Patel R. & Davidsson B. (1994). Forskningsmetodikens Grunder - Att planera, Genomföra och Rapportera en Undersökning. Lund, Sweden: Studentlitteratur.
[71] Merriam, S.B. (1998). Qualitative Research and Case Study Applications in Education. San Francisco: Jossey-Bass Inc.
[72] Ritchie, J. & Lewis, J. (eds.) (2004). Qualitative Research Practice. A Guide to Social Science Students and Researchers. London: SAGE Publications.
[73] Bryman, A. (2002). Samhällsvetenskapliga metoder. Berlings Skogs: Trelleborg, Sweden, 2002.
[74] Yin, R.K. (1994). Case Study Research: Design and Methods. London; SAGE Publications.
[75] JA, Junior Achievement worldwide (2014). https://www.jaworldwide.org/ja-works/Pages/default.aspx, Accessed November 11, 2014.
[76] NY, Nuori Yrittäjyys Finland. (2013). NY Vuosikertomus 2012-2013. Helsinki, Finland: Nuori Yrittäjyys ry.
[78] Collis, J. and Hussey, R. (2003). Business Research: A Practical Guide for Undergraduate and Postgraduate Students. Palgrave Macmillan, Houndmills, Basingstoke, Hampshire.
[79] Froggatt, K. A. (2001). The analysis of qualitative data: Processes and pitfalls. Palliative Medicine, 15.
[80] Neuendorf, K. A. (2002). The content analysis guidebook. Thousand Oaks, CA: Sage.
[81] Roberts, C.W. (Ed.) (1997). Text analysis for the social sciences: Methods for drawing statistical inferences from texts and transcripts. Mahwah, NJ: Lawrence Erlbaum.
[83] Hope, C. (2013). Work readiness standards and benchmarks: The key to differentiating America's workforce and regaining global competitiveness. USA: ACT, Inc. Crousea

[84] Knight, P. (2007). Fostering and assessing ‘wicked’ competencies. www.open.ac.uk/cetl-workspace/cetlcontent/documents/460d1d1481d0f.pdf. Accessed August 13, 2015.
[89] Scott, R.W. (2001). Institutions and Organizations. London: Sage Publications.

Table 1 Examples of skills/ skills frameworks from research studies.

	Wei-Cheng Chien, 2015	Hayhurst, 2011	Lim, 2015	Knight, 2009	Andrews and Higson, 2008	Pool and Sewell, 2007	Jackson & chapman, 2012	Mentioned in
Communication	x		x	x	x	x	x	6
Cooperation	x		x	x	x		x	5
Professionalism		x		x	x	x	x	5
Learning	x		x	x		x		4
Time / self management		x		x		x	x	4
Work ethic	x	x,			x		x	4
Subject knowledge	x			x		x	x	4
Problem solving		x	x				x	3
Creativity and innovation				x		x	x	3
ICT, technology skills	x			x		x		3
Planning					x	x		2
Team/Group work				x		x		2
Leadership and decision-making						x	x	2
Self-direction				x		x		2
Organisation and coordination						x	x	2
Relational skills		x		x				2
Confidence and influencing							x	2
Working under pressure					x	x		2
Dealing with uncertainty and adaptability					x	x		2
Critical stance							x	1
Positive attitude			x					1
Attention to detail						x		1
Listening				x				1
Foreign language	x							1
Using feedback		x						1
Jobb seeking / career preparation	x							1

Table 2 Examples of skills/ skills frameworks from various association papers/handbooks.

	Casner-Lotto & Barrington, 2009	NSWD, 2015	Youthcentral, 2015	AGDE, 2013	ODEP, 2015	WRC, 2015	EDGE, 2011	NWRC, 2015	TEM, 2013	CBI, 2007	Mentioned in
Problem solving	x	x	x	x	x	x	x	x	x	x	10
Communiccation	x	x	x	x	x		x		x	x	8
Teamwork	x	x	x		x		x			x	6
ICT, technology, digital	x		x	x			x		x	x	6
Professionalism	x	x		x	x	x					5
Self management		x	x	x			x			x	5
Organizing and planning		x	x	x					x		4
Personal characteristics		x			x			x		x	4
Diversity and differences	x			x				x	x		4
Reading/writing	x					x	x			x	4
Cooperation/networking/ interpersonal				x	x		x	x			4
Learning	x		x					x			3
Leadership and decision making	x			x			x				3
Initiative/enterprising			x			x	x				3
Accepting supervision/ following instructions		x					x				2
Time management						x			x		2
Creativity and innovation	x			x							2
Planning											1
Ethics/Social Responsibility	x										1
Project management						x					1
§Dressing						x					1
Problem solving using mathematics								x			1
Stress management									x		1
Business/customer awareness										x	1