



Perceived employability and ability self among Finnish university students

Hannu Rätty¹ · Ulla Hytti² · Kati Kasanen¹ · Katri Komulainen¹ · Päivi Siivonen¹ · Inna Kozlinska^{3,4}

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Abstract

Employability is an increasing concern for university students. Our survey set out to examine university students' perceptions of their employability and the ways in which these perceptions relate to positions that subsequently connect students to working life: students' self-representational position or "ability self", and students' life-historical positions such as chosen field of study, phase of degree and working life experience. The participants comprised a sample of students ($N = 1819$) from two Finnish universities, representing diverse fields of study. It was found that apart from the field of study, the perceived proximity to graduation and working life was associated with the perception of employability. Furthermore, a set of self-attributed capabilities was associated with students' perceptions of employability, particularly extroversion, ambitious competitiveness, mental strength and the desired characteristics of a good employee; however, the attribution of academic skills showed opposing effects. It was concluded that both self-representational and live-historical positions are part of the construction of students' optimism regarding their employability.

Keywords Perceptions of employability · University students · Perceptions of abilities · Ability self

Introduction

Previous research in European countries has examined graduates' labour market returns and outcomes and the way they are positioned in working life, as well as the way in which graduates manage the transition into the labour market (Fallows and Steven 2000; Boden and

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✉ Hannu Rätty
hannu.ratty@uef.fi

Extended author information available on the last page of the article

Nedeva 2010; Verhaest, Sellami and van der Velden 2017). However, less scholarly attention has been paid to the relationship between university students' interpretations of their abilities and their perceptions of their own employability—which represents, to use Tomlinson's (2017) classification, “a micro level” analysis because it focuses on how employability is constructed at a personal level. Therefore, our aim was to add new insight to the discussion of academic employability in terms of students' perceptions of their abilities in particular; moreover, we wanted to develop a novel way to do the micro level analysis, i.e. to empirically scrutinise students' “ability self”.

Employability and perceived abilities

In Finland, the unemployment rate among tertiary educated 25–64-year-olds was 5.9% in 2016, which was somewhat higher than that in other Nordic countries (OECD Data 2017). The unemployment rate among the academically educated population has shown an increasing trend for some time, although there has been year-by-year variation over the past decade in Finland (Taulu 2017). Evidently, shifting academic unemployment has encouraged and even obliged university students to (re)consider their prospects in the labour market. Among other things this entails a comparison of an individual's own perceived abilities and related personal characteristics with the ability requirements expected in working life.

Given that perceived employability involves students' optimism and self-assurance and views of work-related relevance with regard to supposed abilities, Rothwell, Herbert and Rothwell (2008) suggested that the concept of self-perceived “internal employability”, in particular, calls for further research (Rothwell and Rothwell 2017). Whereas internal employability refers to students' confidence in their own abilities, “external employability” relates to their perceptions of the strength of their university's brand and other labour market factors. As Coetzee (2017) also maintained, even though employability has been widely studied, little is known about the association between individuals' perceptions of their “employability capacities” and their psycho-social career preoccupations.

According to the current discourse of employability, a student is seen as a “work in progress” and as a potential worker (Prokou 2008; Daniels and Brooker 2014). A potential worker is defined through attributes allied with a graduate's forthcoming identity: employability is not just about getting a job, but about learning, having and developing general work-related abilities, so called “core” or “enterprise” skills, such as creativity, problem-solving skills, innovativeness, flexibility, communication, emotional intelligence, teamwork, and the ability to take risks (McQuaid and Lindsay 2005; Bridgstock 2009). These skills represent “soft currencies” (Tomlinson 2012), which are transferable to a wide range of employment contexts (Payne 2000; Sennett 2006).

Interestingly, the current discourse on employability is apt to challenge the value of traditional academic credentials—“hard currencies” that occur in the form of academic qualifications—by placing the emphasis on technical, social and personal abilities that are not based on formal expertise as such (Brown, Hesketh and Williams 2003; Prokou 2008). In the Finnish context, interview findings show that some unemployed people who are academically qualified may question whether university education amounts to a personal merit of which they can openly be proud (Siivonen et al. 2016). However, many feel that the attainment of an academic degree validates the fact that they possess general, valuable (theoretical and analytical) abilities that can be applied in a variety of situations, including in working life (Komulainen et al. 2012; Kurlin 2018). Generally, a university degree and the related academic abilities still represent a noteworthy part of their social identity (Rätty 2015).

It is even suggested that the whole notion of ability has been extended to embrace a set of skills habitually indistinguishable from personal characteristics, behaviours and attitudes, which in the past would rarely have been regarded as abilities at all (Payne 2000; Potgieter 2012). Accordingly, the concept of ability is also used as a generic notion in the present study, referring both to capabilities (e.g. intelligence and innovativeness) and personality characteristics (e.g. extroversion and honesty).

The present study contributes to the existing body of knowledge by examining the social-psychological construction of Finnish students' self-perceived employability or employability optimism. Operationally, we scrutinised students' perceptions of their employability and the ways in which these perceptions relate to two sets of positions that subsequently connect students to working life: the self-representational position, i.e. students' "ability self", and life-historical positions such as the students' chosen field of study, phase of degree and experience of working life. Specifically, we wanted to see whether students' ability self would have an independent contribution to the structuring of employability optimism. An outline pertaining to the major concepts of the present study is displayed in Fig. 1.

"Ability self"

The concept of "ability self" is a somewhat novel characterisation of a person's self-concept in terms of his or her perceived abilities, understood as more or less internal and constant personal features, which orientate an individual towards education, work and career (Komulainen et al. 2012). Theoretically, this particular notion derives mainly from the social cultural research of the self (e.g. Markus and Kitayama 2010) and social-psychological research on social representations of intelligence (e.g. Mugny and Carugati 1989). Accordingly, ability self is seen to develop through symbolically mediated interaction with others and a social environment. Selves are simultaneously representations of past behaviour and patterns for current and future behaviour. Selves are always situated and subsequently reflect their contexts in significant ways.¹

Even though ability self is expressed in terms of personal qualities, as "ability talk", which makes it such a convincing individualising mode of interpretation, the formation of an ability self is connected with an individual's institutional contexts and life-historical positions (e.g. Brookover, Thomas and Paterson 1964). In the present study, institutional context refers to the predominant social and cultural representations of intelligence maintained by educational system (Mugny and Carugati 1989). Accordingly, the ability self is formed in the course of an individual's life-history, especially in the context of formal and informal evaluations. While participating in the differential routines of a school, students are predisposed to "learn their intelligence" by adopting the culturally prevalent criteria used to evaluate their potential (Rosenholtz and Simpson 1984), replicating the status hierarchy of abilities and the corresponding academic subjects (e.g. Rätty, Kasanen and Kärkkäinen 2006).

Apart from the social representations pertaining to academic abilities and corresponding values, university graduates are invited, and even required, to position themselves to the representations of abilities, voiced by working life. Even if the pressures generated by these

¹ The notion of self-efficacy, developed by Bandura (1977), is rather similar to that of ability self when they both refer to an individual's perception of his/her competences. However, whereas self-efficacy comprises belief in one's personal ability to perform specific actions, such as succeeding in particular school subjects of specific ability domains (Spinath et al. 2006; Furnham 2001), the ability self refers rather to a broader evaluation of one's capabilities, e.g. one's ability profile.

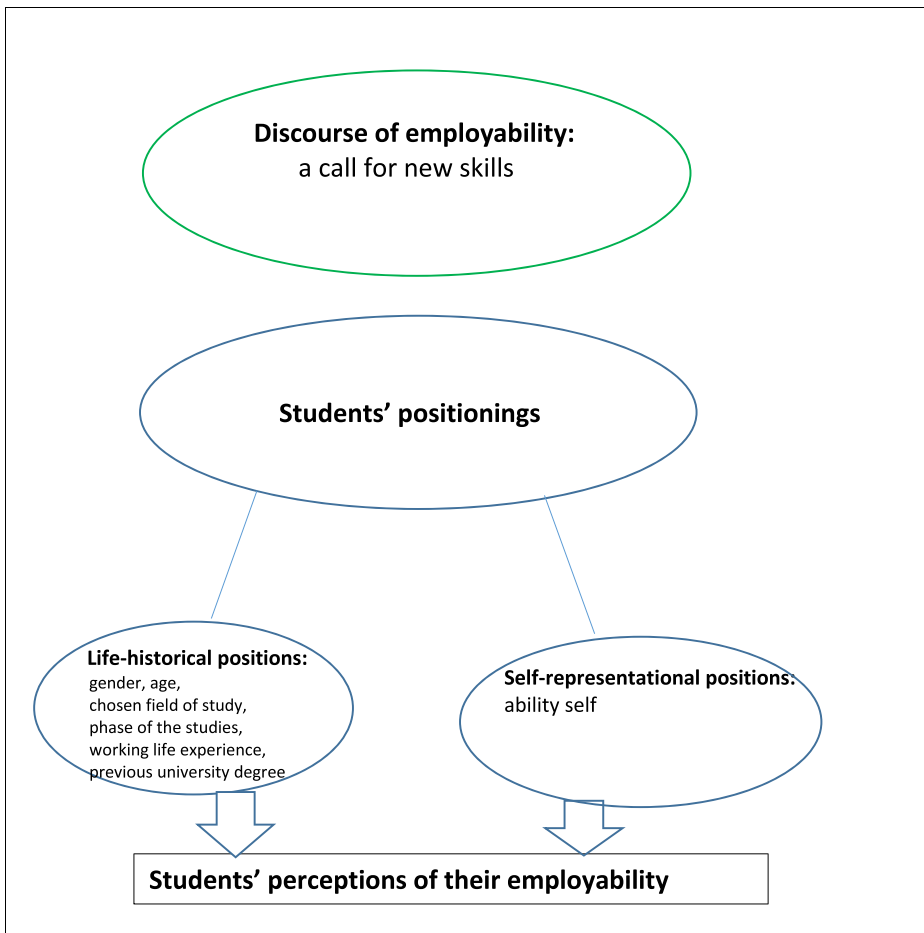


Fig. 1 A schematic sketch of the major concepts of the present study

normative requests do not necessarily lead an individual to reconstruct his/her present ability self, they connect him or her to socially constructed frameworks and act as vantage points that an individual is both aware of and must take into account (cf. Clémence 2001; Doise 2001). An individual's ability self provides a self-representational position that presumably organises a subjectively interpreted “fit” in the labour market that then shows up in students' employability optimism. Ability representations derived from the current discourse of labour market may even generate uncertainty of one's prospects despite the fact that the actual possibilities to be employed are fairly good for most graduates, as suggested by a recent large-scale Finnish survey (Kurlin 2018).

As indicated in Fig. 1, there are several life-historical positions contributing to students' perceptions of their employability. The chosen field of study is a particularly pertinent position, as there exists a variation between different fields—especially between professional and generalist domains—regarding the opportunities to get a job after graduation (Taulu 2017; Humburg, Grip and van der Velden 2017). In 2017, the average employment rate among the academically educated people in Finland was 92%, lowest in humanistic domains (87%) and

natural sciences (84%) and highest in business, administration and law (98%), services, health and ICT (96%) and social sciences (94%) (Kurlin 2018).

Other life-historical positions included in the present study were students' subjective estimates of the level of accomplishment of their master's degree (phase of the studies), and to what extent they already have experience of working life (Karli 2016; Jackson and Wilton 2016). Both estimates connect students to graduation and working life, thus measuring perceived "proximity" to the labour market. Gender is also a relevant position to consider, as there is research evidence to show that from early on men tend to show a more positive self-concept (Bleidorn et al. 2016), including confidence in their abilities (Furnham 2001) and prospects (Ring et al. 2016; Vargas et al. 2018). Finally, we asked students to report whether they had a previous university degree, although we did not set any expectations for it.

To sum up, the following research questions were put forward:

1. In what way do students perceive their employability after graduation?
2. What is the relative weight of different abilities in the construct of ability self?
3. In what ways do ability perceptions relate to students' life-historical positions, i.e. gender, age, chosen field of study, phase of the studies, working life experience and previous university degree? Subsequently, we ask whether students' self-representational positions, ability selves, would have an independent contribution to their perceptions of employability, and what abilities are particularly pertinent?

Method

Participants

The survey was directed to students of the Universities of Eastern Finland and Turku. At the University of Eastern Finland, the Faculty of Social Sciences and Business Studies and the Faculty of Science and Forestry were included; and at the University of Turku, the Faculty of Medicine and the Faculty of Humanities were included. Operationally, based on the faculties' records, students' major fields of study were determined and the questionnaires were distributed to all students doing their MA degree.² Foreign students, postgraduate students and those who did not give permission to use their names in surveys were excluded. The study was conducted by means of e-survey, and the students were requested to complete the questionnaire on a voluntary basis and anonymously. The questionnaire took around 10–15 min to complete. Two days after the first circulation, the students were sent the first reminder and the second reminder was distributed after one week. The questionnaire was only presented in Finnish.

² At Finnish universities, students complete a Bachelor's degree, requiring three years of full time studying, after which they may go for a Master's degree, consisting of two further years of full time studying. Generally, students are admitted to study for the higher degree; a Bachelor's degree is regarded primarily as a stage in the studies for a Master's degree. This relates to the fact that the minimum degree for many regulated professions is Master's level degree. The two-cycle degree system is not used in medical fields, where students study directly to a Master's level degree. Graduate students with an MA degree usually work in both public and private sector expert positions. Especially in the fields of social sciences and humanities, there is the possibility to function as subject teachers.

The response rate was 24%. Of those who responded, 67% were women and 33% men; i.e. the women were more active as the corresponding shares in the initial student population were 58 % and 42%, respectively. Students of the University of Eastern Finland (26%) were more active than those of the University of Turku (20%). As regards the faculties, the highest response rates were from the fields of the Faculty of Social Sciences and Business studies (27%) and the lowest were from the fields of the Faculty of Humanities (19%).

The participants comprised a sample of students, totalling 1819, at the University of Eastern Finland ($n = 1387$) and the University of Turku ($n = 421$), and unidentified cases ($n = 11$). Participant age varied between 18 and 60 years (mean age 29.4, $SD = 9.3$). The following 10 fields were represented: social sciences ($n = 438$), business studies ($n = 289$), law ($n = 295$), natural sciences (chemistry, physics and mathematics, $n = 108$), computing science ($n = 82$), forest sciences and biology ($n = 164$), medicine ($n = 112$), nursing science ($n = 45$), languages ($n = 120$), humanities ($n = 139$), and unspecified ($n = 27$).

On average, 40 % of the participants estimated that they had already completed 75–100% of their degree, whereas 19% estimated that they have completed less than 24%. Almost one third (31%) reported having a previous university degree. With regard to working life experience, 70% of the participants reported having at least one year of experience, 13% had from one month to 11 months, and 9% had no work experience at all.

Questionnaire

The questionnaire comprised the following measures.

Estimated share of accomplished degree The participants were asked to give their own evaluation of how much of their degree they had completed so far in percentages, using the following alternatives: “0–24”, “25–50”, “51–74” and “75–100”.

Working life experience We also asked the participants to report the extent of their working life experience by using the alternatives: “none”, “1–4 months”, “5–11 months”, “1–4 years” and “5 years or more”.

Previous university degree The students were requested to indicate whether they had completed a university degree previously, using the alternatives “no” or “yes”.

Self-perceived employability We used the scale developed by Rothwell et al. (2008) to measure self-perceived internal employability. Apart from the UK, this method has been used successfully, with some modifications, in countries such as Turkey (Karli 2016), Spain (Vargas et al. 2018) and Finland (Rätty et al. 2018). We chose all six statements pertaining to perceived internal employability. The statements were translated into Finnish and one additional statement was included—“I believe that I will be able to get a job in my field when I graduate” (see Table 1). The participants were asked to indicate their agreement with the statements using a five-point Likert-scale anchored by “totally agree” (5) and “totally disagree” (1). The reliability coefficient (Cronbach’s alpha) of the constructed mean scale was .86, which is in line with that obtained by Rothwell et al. (2008). Item-scale correlations varied between .59 and .73, with an average of .63.

Table 1 Frequencies of responses to the statements of scale measuring self-perceptions of employability (% in brackets)

Statement	Totally disagree	Partly disagree	Neither agree nor disagree	Partly agree	Totally agree
There is generally high demand for graduates at the moment.	196 (11)	514 (28)	515 (29)	374 (21)	204 (11)
There are plenty of job vacancies in the geographical area in which I am looking.	275 (15)	532 (30)	461 (25)	395 (22)	140 (8)
I can easily find out about opportunities in my chosen field.	87 (5)	301 (17)	408 (22)	715 (40)	292 (16)
The skills and abilities I possess are what employers are looking for.	47 (1)	169 (9)	562 (31)	809 (45)	212 (12)
I am generally confident of success in job interviews and selection events.	103 (6)	278 (14)	425 (24)	728 (40)	264 (15)
I feel I could get any job as long as my skills and experience are reasonably relevant.	147 (8)	332 (18)	442 (25)	573 (32)	309 (17)
I believe that I can get a job in my field when I graduate	88 (5)	213 (12)	352 (19)	570 (32)	581 (32)

Ability self The scale for the ability self was entitled “What kind of person am I?” Participants were asked to evaluate how well a set of listed attributes described them at that very moment, using a five-point rating scale, anchored by “describes me very well” (5) and “does not describe me at all” (1).

The attributes were derived from two major sources and subsequently tested in a pilot study (Räty et al. 2018). Firstly, a well-established self-concept inventory used in Finnish vocational guidance was employed (Häyrynen 1968). The multi-dimensional inventory includes both personality traits (e.g. extroverted) and intellectual capabilities (e.g. theoretical abilities). Secondly, we reviewed the pertinent research literature and related public discussions on the employability skills needed in present-day labour markets (Fejes 2010; Komulainen et al. 2012). Based on the qualitative content analysis we ended up with 33 attributes (see Appendix).

The ratings of attributes were subjected to a principal-component analysis with a varimax rotation. PCA was chosen as it is an appropriate tool for exploratory data examination and does not incorporate specific assumptions about the underlying structure as the factor analysis. In practice, a set of preliminary analyses suggested that PCA produced fairly similar results compared to principal axis factoring, for example.

Based on the Scree test and the simplicity of interpretation, a six-dimensional solution was chosen, accounting for 53% of the total variance. The solution was judged to be appropriate for the data given that the Keiser-Meyer-Oklín value was .90, surpassing the recommended value of .6, and the Barlett’s Test of Sphericity was statistically significant, $\chi^2 = 19,901$, $p < .001$, supporting the factorability of the correlation matrix. For the purpose of further analyses, factor-based mean scales representing each component were calculated; thus, they vary between 1 and 5. For each scale the highest loading items from the corresponding component were selected based on the consistency and clarity of interpretation. Instead of factor scores we used mean scales because they made it possible to compare the extent to which each ability dimension was attributed to oneself.

The first factor was a bipolar one with an eigenvalue of 7.46, accounting for 23% of the total variance; it reflects *extroversion vs. introversion*. The highest loaded items which were included in the mean scale were the following: “prefers to listen” (reversed), “silent” (reversed), “talkative”, “likes public speaking”, “skilled at building contacts”, “careful” (reversed) and “dominant”. The reliability coefficient (Cronbach’s alpha) of the constructed mean scale was .86. The second factor, with an eigenvalue of 3.15 (9%), indicates *mental strength*: “stable”, “copes with failures”, “good stress tolerance” and “strong self-confidence”. The reliability coefficient of this mean scale was .72. The third dimension, with an eigenvalue of 2.20 (7%), was labelled as *innovativeness*: “rule breaking”, “original”, “innovative” and “likes risk-taking”. The reliability coefficient of this scale was .72.

The fourth dimension, with an eigenvalue of 1.85 (5%) and pertains to *ambitious competitiveness*: “ambitious”, “competitive”, “goal-oriented” and “passionate”. The reliability coefficient of this mean scale was .71. The fifth factor, with an eigenvalue of 1.61 (5%), entails *desired characteristics of a good employee*: “emotionally intelligent”, “conscientious”, “has cooperative skills”, “honest” and “respects rules”. The reliability coefficient of this mean scale was .61. The sixth dimension, with an eigenvalue of 1.26 (4%), refers to *academic abilities*: “theoretical”, “intelligent”, “critical” and “broad-minded”. The reliability coefficient of this mean scale was rather modest at .49, but it was included in further analyses because of its theoretical interest. The full rotated component matrix is depicted in the Appendix.

Results

Self-perceived employability

Generally, the students tended to perceive their possibilities to obtain work after graduation in a relatively hopeful light (Table 1). For example, two-thirds of the participants believed more or less that it is possible to get a job in one’s own field after graduation. In the same vein, almost two-thirds of the students considered that the skills they possess are what employers are looking for; likewise, more than half of the students thought that they would feel confident of success in job interviews. However, many students thought they would have to move after the job. In addition, students’ opinions of the general demand for graduates in the labour market were rather polarised. Furthermore, the share of those who did not give their opinion, neither agreeing nor disagreeing, was approximately one fourth or one fifth for each statement.

Relative emphasis of different ability dimensions

A repeated-measure analysis of variance (ANOVA) was conducted to determine whether there were differences among the rated level of dimensions pertaining to ability self. A significant effect was noted, $F(4, 8207) = 888.69, p < .001$, and the post hoc test (Bonferroni) showed that all dimensions except innovativeness and extroversion differed significantly from each other. Accordingly, the desired characteristics of a good employee ($M = 4.10$) were attributed most strongly to one’s ability self; and the succeeding dimensions were academic abilities ($M = 3.61$), ambitious competitiveness ($M = 3.59$) and mental strength ($M = 3.44$). The least strongly attributed characteristics were innovativeness ($M = 3.08$) and extroversion ($M = 3.02$).

Associations between self-perceived employability and dimensions of ability self and a set of positional factors

An ANOVA was used to examine the connections related to the students' self-perceived employability. This method allowed us to simultaneously test for the separate effects of each independent variable on the dependent variable. Accordingly, the mean score of the perceived employability scale was set as the dependent variable, and the independent variables included were the six dimensions of ability self and the students' gender, age, previous university degree, field of study and estimates of accomplished share of their degree and experience of working life. For the purpose of the analysis, each mean variable representing the dimensions of ability self was split in two groups on the basis of their median. To avoid low cell frequencies, only the main effects were determined. Size effects (partial eta squared, η^2) were computed and their magnitudes were evaluated using Cohen's criteria. The Bonferroni method was employed as a post-hoc test at $p < .05$. The Levene test indicated that the error variance was equal across groups ($p = .51$).

It was found that gender had a significant relationship, $F(1, 1688) = 14.92, p < .001, \eta^2 = .009$, representing a small-sized effect and suggesting that the men perceived their employability more positively than did the women (see Table 2). Age was also significantly associated with self-perceived employability, $F(2, 1688), p < .001, \eta^2 = .008$, representing a small-sized effect and indicating that the respondents younger than 23 years displayed more optimism than did the older age groups. The estimate of accomplished share of the MA degree had a significant association, $F(3, 1688) = 6.47, p < .001, \eta^2 = .011$, representing a small-sized effect and showing that those students who had accomplished less than one fourth of their degree scored significantly higher on the employability scale than did those who had accomplished over three fourths. Furthermore, the extent of previous working life experience was connected significantly to self-perceived employability, $F(4, 1688), p < .001, \eta^2 = .029$, representing a small-sized effect and indicating that the students who reported having had at least half a year of work experience showed higher employability optimism than those who had less working experience or no experience at all.

As to the magnitude of effects, the chosen field of study had the strongest connection, $F(9, 1688) = 22.29, p < .001, \eta^2 = .106$, representing a medium-sized effect and suggesting that the students of medicine and computing science displayed a significantly higher level of self-perceived employability than all other groups, whereas the students of humanities anticipated the lowest level of employability. Likewise, the students of nursing science and forest sciences and biology indicated relatively low levels of self-perceived employability, whereas the students of social sciences, business studies and law scored at a medium level.

The dimensions of ability self had numerous significant main effects on the self-perceived employability independently of the positional variables described above (Table 3). The following dimensions had significant positive associations with the employability score, all representing small-sized effects: mental strength, $F(1, 1688) = 74.07, p < .001, \eta^2 = .042$, extroversion $F(1, 1688) = 42.68, p < .001, \eta^2 = .025$, ambitious competitiveness, $F(1, 1688) = 22.19, p < .001, \eta^2 = .013$, desired characteristics of a good employee, $F(1, 1688) = 6.72, p < .004, \eta^2 = .004$. As to academic abilities, $F(1, 1688) = 4.03, p < .05, \eta^2 = .002$, the association was negative, i.e. those who attributed academic abilities to themselves tended to have a relatively low score in perceived employability.

Table 3 Means and standard deviations of perceived employability score pertaining to the dimensions of students' ability self

Dimension	Extroversion		Strength		Innovativeness		Ambitious competitiveness		Desired characteristics		Academic abilities	
	Low <i>n</i> =	High <i>n</i> =	Low <i>n</i> =	High <i>n</i> =	Low <i>n</i> =	High <i>n</i> =	Low <i>n</i> =	High <i>n</i> =	Low <i>n</i> =	High <i>n</i> =	Low <i>n</i> =	High <i>n</i> =
	901	814	981	734	911	804	881	834	779	936	878	837
Mean	3.18	3.43	3.14	3.47	3.29	3.32	3.22	3.40	3.26	3.35	3.34	3.27
<i>SD</i>	.83	.77	.84	.73	.82	.82	.82	.78	.84	.80	.82	.83

The only factors that did not have significant effects on the perceptions of employability were the existence of a previous university degree ($p > .53$) and self-perceived innovativeness ($p > .40$).

Discussion

Overview of main findings

With regard to the first research problem relating to the students' self-perceived employability, it was found that the participants generally appeared to have a fairly positive anticipation of their employment prospects (also Jackson and Wilton 2016). On the other hand, the students' views of the demands of appropriate jobs were rather polarised, probably reflecting actual differences between the fields. Moreover, a large portion of students felt considerable uncertainty in estimating their employability prospects. Due to these diversities, it is not possible to make any single generalisation concerning university students' employability optimism. Ultimately, university students' perceptions of their prospects acquire relevance in relation to the realities of the labour market, particularly concerning concrete demand and employees' expectations (Jackson 2008; Lowden et al. 2011), a theme that we address while discussing the policy implications of our study.

At any rate, the relatively optimistic findings regarding students' perceptions of their employability concur with a recent Finnish survey dealing with the views of young academically educated people in working life: even though about only 50% of them felt that their university education gave sufficient competences in the labour market, over 80% of them were satisfied with their academic degree in terms of their professional career (Kurlin 2018). Evidently, the fact that the employment rate in this group, regardless of field of study, has been over 80% during the first five years after graduation explained in part their positive evaluation of their academic degree. Consequently, academic education still guarantees one's employment and "pays off".

This conclusion gets further support by our finding regarding the second research question about the emphasis of different abilities. Apart from the general abilities of a good employee, it was the academic skills that were most strongly ascribed to oneself, suggesting that academic skills still play still a significant role in students' self-perceptions.

Regarding the third research problem, the contribution of a set of life-historical positions to self-perceived employability, it was found that the further away the students were from their graduation, as measured by their age and their estimate of the

accomplished share of the degree, the more optimistic they were. Moreover, the closer the students positioned themselves to the labour market, as measured by their previous experience of working life, the more optimistic were their perceptions of employability (for similar findings, Kurlin 2018; Karli 2016).

What seems to matter is the perceived proximity to graduation and working life. In the beginning phase of the studies, students' positively perceived prospects may be a reflection of their elevated self-confidence and motivation, deriving from the fact that they had successfully passed a rather demanding entrance examination. There are some recent Finnish survey findings which indicate that the youngest people (15–24 years old) have the most positive expectations about the future labour market (Pulkka 2018). This may relate to their need to believe that their studies will not be a wasted investment, or to their confidence in the possibilities of emerging new technology (cf. Antonio and Tuffley 2007).

In the finishing stage of their studies, the issues of employment become more relevant to students close to graduation, bringing up uncertainty regarding one's chances of finding a suitable job (Hall 2010). On the other hand, personal experience derived from working life appears to convince students that they can manage "out there" (Karli 2016). However, we must bear in mind the possibility that these effects may also come from the curriculum, not from the students' own perceptions, i.e. it may be that the course units taken later in the degree place more emphasis on employability skills. Nevertheless, it might be helpful to use this sort of "distance information" while preparing working life programmes for university students (Bridstock 2009).

The contribution regarding the field of study was the strongest as measured by its size effect. Three groups could be tentatively identified: the highest self-perceived employability level was characteristic of the students of medicine and computing science; the next group consisted of the students of social sciences, business studies, law and science; and the students of biology and forest sciences and humanities had the lowest level of self-perceived employability. These differences among the fields reflect quite accurately the actual demands of the Finnish labour market (Taulu 2017; Kurlin 2018), of which the students seemed to be rather well aware.

This particular theme concerns the context-specificity of students' perceived ability and its connectedness to labour market demands: how are ability self constructions contingent on the types of occupational areas and demand-based issues, including types of abilities. As our findings seem to suggest, the students who scored high on academic ability perceptions with high levels of "hard currencies" are probably also apt to perceive high employability if these currencies have evident exchange value in a given field (e.g. medicine and information technology). Perhaps in these particular fields individual differences relating to students' ability self do not have such a significant role in perceived employability than in fields with low demand in labour market?

In an international comparison, Finnish university students have been shown to be rather pessimistic compared to their actual probability of getting a job in their field (Verhaest, Sellami and van der Velden 2017). However, there is previous research evidence from Finland to show that the average length of job searching might be only a few months, and that there are not great differences in employment prospects between generalist and professional fields (Puhakka, Rautopuro and Tuominen 2010). We may speculate whether the relatively pessimistic perceptions of their employability among students in humanistic studies in particular are associated with the fact that the available jobs for graduates of these fields, though numerous, are diverse and scattered. This uncertainty combined with doubts whether one has made a right

choice regarding the study field may well be related to students' low study motivation in humanistic domains (Kankare 2018). Students need objective information about their chances because many of them seem to have overly negative perceptions of their employability.

In the present study the importance of gender was evident. The present finding that the men perceived their employability in more hopeful terms than did the women is in agreement with research results according to which boys tend to show more confidence in their abilities and prospects than girls already from primary school onwards (Marsh 1989). However, the participation rate of men in the present study was considerably lower than that of the women; thus, the men may also represent a non-typical group in terms of their employability views.

In this study we further asked whether students' self-representational position, ability self, would have an independent contribution to their perceptions of their employability. According to the findings the answer is affirmative: the dimensions of ability self did have separate effects on perceived employability which, in terms of their size effects, were as strong as those of the life-historical positions.

The students who rated themselves as having high mental strength perceived their chances of finding a job after graduation as significantly better than those whose corresponding ratings were less strong. Moreover, the attributions of desired characteristics of a good employee were positively associated with self-perceived employability. These two ability dimensions could be characterised as representing "conventional" capabilities, as presented by Coetzee (2017). According to the students' perspectives, having mental stability and a strong self-concept, being able to get along with others, and conscientiousness and honesty still represent relevant currency in the labour market.

In comparison to other abilities the students as a whole group ascribed extroversion relatively little to themselves. However, the importance of self-attributed extroversion in the shaping of students' perceptions of their employability showed up in our results and accords with previous research (Tomlinson 2012), including our pilot study (Räty et al. 2018). As suggested in public discussions, extroverted or socially-oriented people are generally regarded as having more optimistic prospects in working life in comparison with, for example, those who define themselves as more introverted in character (Sennett 2006). Consequently, our findings suggest that individuals with self-defined social orientation have, as it were, a "self-concept advantage".

Ambitious competitiveness, which can be seen as representing topical enterprise-skills in particular, scored moderately high in the students' ability self and also tended to structure their perceptions of employability. Thus, it may well also be the case that the students' anticipations of working life-related requirements are already reflected in their ability self, and that these normative requirements relate especially to risk-taking and competitiveness, as presented in the predominant employability discourse (Tomlinson 2012).

The opposing meanings associated with academic abilities also showed up, although it must be borne in mind that psychometrically this particular dimension was rather modest at best and its effect was not strong. In accordance with their academic identity, the students quite keenly attributed to themselves capacities such as being theoretical, critical, broad-minded and intelligent. However, it turned out that the stronger the attributions of academic skills, the lower was the self-perceived employability. We might ask whether students regard academic characteristics as aptitudes that are not welcome in working life and can even be a demerit (Komulainen et al. 2012). Or, do they associate academic abilities with unwillingness to consent to the "new" skills demands and to make compromises in terms of the "wrong" stresses of working life? Or to put it more generally, do academic skills really represent

appropriate “hard currency” as proclaimed by the universities? Given the importance of these questions, further research is needed to confirm or dispute our findings.

Limitations

Our study has several limitations. First, although the size of our sample was quite large the response rate was relatively low, which is quite normal in e-surveys. Our study did not cover technical and educational fields or art. Thus, the variation among the fields may well be even more noticeable than observed in the present study. Moreover, the effect of the university could not be scrutinised since we selected dissimilar fields from the two universities. There is Finnish research evidence to suggest that differences among universities are mainly attributed to the differences among the repertoire of their study fields (Kankare 2018).

Second, the numbers of participants in some fields of study were rather low, preventing the use of statistical methods to analyse interactions in particular. Subsequently, we did not scrutinise comprehensively the relationships of students’ ability perceptions and life-historical positions. Given that the ability self is formed in the course of an individual’s life history (Komulainen et al. 2012), further research is needed to explore students’ educational biographies and related learner identities, and the significance of previous working life experience, which probably structures the interrelations between their ability selves and self-perceived employability. Accordingly, it is advantageous to examine the role of work experience, including wider life narrative experiences, as a mediator in ability self, self-confidence, efficacy belief and values.

Third, cross-national comparisons are needed to establish the cultural specificity of the present findings. For instance, different national economies control the relationship between their higher education system and the new skills strategies differently, and national variations profile how students recognise the connection between higher educational qualifications and their future returns (Meriluoto and Lindberg, 2012). Fourth, the list of abilities should also be reassessed. For example, a group of digital and media literacy competences as well as metacognitive and reflective skills could well be included (Bridgstock 2009). The category of academic abilities could also be enlarged, even if the definition of what constitutes a “genuine” academic ability is bound to remain somewhat uncertain.

Policy and educational implications

Our findings offer some room for policy implications. Firstly, current policy aims to push young people in and out of university as soon as possible. When and how can students gain the work experience that—as the present study shows—appears to be positively associated with their employability optimism? In an international comparison the participation in labour markets during student status is extensive particularly among Finnish and German students (Meriluoto and Lindberg 2012); also, the present study indicated that 70% of the participants reported having at least one year of work experience (for similar Finnish results, see Kankare 2018). The other side of the coin is that the emphasis on work experience gained as a student is an important factor underlying the prolonged time spent with student status. However, as Meriluoto and Lindberg (2012) argued, the great number of students who combine working and studying is illustrative of the fact that the skills and work life readiness that new graduates are expected to have are generally high in the German/Finnish type of education and labour market system.

The second policy issue concerns the finding that many students were not convinced that academic abilities are “good currency” in the labour market. Is there a “skill gap” between the

market and universities? We do not yet have sufficient Finnish studies on this issue (Puhakka et al. 2013). There is international research evidence to show that employers are inclined to expect graduates to have the substance know-how from their degrees but also want graduates to demonstrate a range of broader skills and attributes, particularly teamwork (e.g. Hernández-March, del Peso and Leguey 2009). However, graduates' general academic skills are valued least by employers (Humburg and van der Velden 2015), a result which concurs with the present study indicating that the students who considered themselves to have high academic ability also considered themselves to be less employable.

Lastly, we can speculate on the extent to which prevailing normative work requirements influence people's judgment about their work-related possibilities based on their interpreted personal characteristics (Moreau and Leathwood 2006). This has important ideological implications, since trait characterisations are apt to individualise responsibility for employability with the person him- or herself (Fejes 2010).

While the dimensions of ability self tended to reflect in students' employability perceptions, it is likely that they play a role during their studies and in the ways students deal with challenging study phases such as MA thesis work. There is also research evidence to show that self-perceived employability increases feelings of being in control of one's career (Potgieter 2012). Accordingly, we are basically dealing with students' self-confidence and learner's identity. From the viewpoint of the psychology of education it seems important to enhance students' trust in their potential, which has been shown to be an essential factor in learning and studying generally (Dweck 1999; Hart et al. 2004). Perhaps universities should not be worried only about students' "instrumental" readiness for the labour market but should also strengthen their students' academic identity, which entails abilities such as theoretical and analytical thinking and an ability to learn new skills that are still highly appreciated by students themselves (Kurlin 2018).

As the present study suggests, while positioning based on the field of study is connected to the students' perceptions of their employability, their self-representational position, ability self, also plays a significant role in the students' orientation to the labour market. This finding is of importance as it demonstrates that the notion of ability self has potentially important psychological implications.

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Hannu Rätty. Department of Education and Psychology, University of Eastern Finland. hannu.ratty@uef.fi

Current themes of research:

Social representations of educability and intelligence

The most relevant publication in the field of Psychology of Education:

Rätty, H., Korhonen, M., Kasanen, K., Rautiainen, R., Siivonen, P., and Komulainen, K. 2016. Finnish parents' attitudes towards entrepreneurship education. *Social Psychology of Education* 19: 385–401.

Ulla Hytti. Department of Management and Entrepreneurship, University of Turku. ullhyt@utu.fi

Current themes of research:

Entrepreneurial careers and identities. Entrepreneurship education.

The most relevant publication in the field of Psychology of Education:

Hytti, U., Alsos, G., Heinonen, J. and Ljunggren, E. (2016) Navigating the family business: a gendered analysis of daughters' identity construction. Published in *International Small Business Journal*, online first. DOI: 10.1177/0266242616675924

Kati Kasanen. Department of Education and Psychology, University of Eastern Finland. kati.kasanen@uef.fi

Current themes of research:

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The most relevant publication in the field of Psychology of Education:

Rätty, H., Kasanen, K., & Kärkkäinen, R. (2006). School subjects as social categorisations. *Social Psychology of Education*, 9, 5–25

Katri Komulainen. Department of Education and Psychology, University of Eastern Finland. katri.komulainen@uef.fi

Current themes of research:

Social-cultural life course research. Gender and education.

The most relevant publication in the field of Psychology of Education:

Komulainen, K., Rätty, H., Korhonen, M., Siivonen, P., Kärkkäinen, R., and Kasanen, K. 2012. Changing discourses of employability. In *Cultural practices and transitions in education*, edited by T. Tolonen, T. Palmu, S. Lappalainen, and T. Kurki, 92–94. London: The Tufnell Press.

Päivi Siivonen. Department of Education and Psychology, University of Eastern Finland. paivi.siivonen@uef.fi

Current themes of research:

Higher education. Ability conceptions. Employability

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Siivonen, P., Komulainen, K., Rätty, H., Korhonen, M., Kasanen, K., and Rautiainen, R. 2016. Salvation of broken promise? Two Adult Graduates' Social Positioning in Education and Working Life. *Scandinavian Journal of Educational Research* 60: 110–125.

Inna Kozlinska. University of Groningen. RISEBA University of Business, Arts and Technology. i.kozlinska@rug.nl

Current themes of research:

Entrepreneurial learning and evaluation of its outcomes

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Affiliations

Hannu Rätty¹ • **Ulla Hytti**² • **Kati Kasanen**¹ • **Katri Komulainen**¹ • **Päivi Siivonen**¹ • **Inna Kozlinska**^{3,4}

Ulla Hytti
ullhyt@utu.fi

Kati Kasanen
kati.kasanen@uef.fi

Katri Komulainen
katri.komulainen@uef.fi

Päivi Siivonen
paivi.siivonen@uef.fi

Inna Kozlinska
i.kozlinska@rug.nl

¹ Department of Education and Psychology, University of Eastern Finland, Kuopio, Finland

² Department of Management and Entrepreneurship, University of Turku, Turku, Finland

³ University of Groningen, Groningen, Netherlands

⁴ RISEBA University of Business, Arts and Technology, Riga, Latvia