

Requirements higher education graduates meet on the labour market

Edith Braun

INCHER-Kassel

Universität Kassel

Mönchebergstr. 17

34109 Kassel

Julia-Carolin Brachem

DZHW

Studies on Graduates

Goseriede 9

30159 Hannover

Project



Tätigkeitsbezogene Kompetenzen in pädagogischen Handlungsfeldern

- „KomPaed – Job-related competences in educational fields of work“ (2012 - 2015)
 - Funded by BMBF research-line „Modeling and Measuring Competencies in Higher Education“
 - Cooperation with Universität Hamburg (Schwippert, Prinz, Pfeiffer), counselling through IFBQ (Fickermann)
- Aim: identification of generic job-related activities and requirements of higher education graduates, as a proxy of competences

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Background

- More and more people of a cohort start a higher education study programme (Orr et al. 2011).
- Higher education is in charge of preparing students for the labour market (“employability”).
- Provision of factual knowledge as well as generic competences

To get a systematic overview of
situations graduates experience at work

Background

- Surveys of employees
 - *O*NET Generalized Work Activities Questionnaire* (O*NET 2012; Peterson et al. 2001)
 - *UK Skills Survey* (BMRB 2006; Felstead et al. 2007)
 - *OECD Programme for the International Assessment of Adult Competencies* (Klaukien et al. 2013; OECD 2013a)
 - *National Educational Panel Study (E8)* (Matthes & Christoph 2013; Matthes & Christoph 2011)

Job Requirements Approach (JRA)

(Felstead et al. 2007; Klaukien et al. 2013; OECD 2013b)

- (1) Asking people *what they do* at their workplace reflects work requirements.
- (2) Employees are able to talk about what they do at work in an unbiased way.
- (3) This might not be true when asking them about their capabilities (level of competences).
- (4) Since a certain match between employees' activities and their own skills can be assumed, this approach might serve as a less biased proxy for job-related competences.

Background

- Important fields of job-related activities and requirements have been identified, but
 - workforces of the total populations have been surveyed.
 - new areas like working with (social) media or scientific techniques are not covered.
 - the importance of job-related activities and levels of competences are questioned.

Research questions

- (1) What activities do higher education graduates fulfil at their workplace?
- (2) What requirements are demanded by the labour market?
- (3) Can areas of generic job-related activities and requirements be identified?

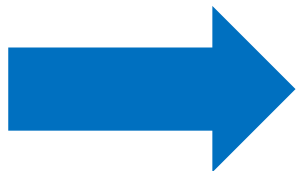
Methods

- Literature review

- „job analysis“; „job requirements approach“;
„educational/pedagogic employment/activity/occupation“;
„competenc(i)es/skills“; „generic competenc(i)es/skills“;
„competenc(i)es educationalist/educationist/pedagogue/ teacher“;
„competenc(i)es/skills research“;
„measurement/diagnostics of competenc(i)es/skills“
- Search brought up 30 relevant publications

- Employer interviews

- 18 guideline-based interviews with employers or HR
(Prinz, Pfeiffer and Schwippert 2014)



*49 generic job-related activities and requirements of
higher education graduates*

Job-related activities and requirements

description	literature	Interview number (1- 18)
reading long specialised texts	SQ; AQ; BIBB-BAuA; NEPS	1; 15; 16
documenting complex issues	PIAAC; GWA; SQ; AQ; UK; BIBB-BAuA; KOAB	1; 2; 3; 4; 6; 8; 12; 13; 15; 17; 18
conducting complex calculations	NEPS	3; 10; 13; 14
using (tablet) computers or smartphones	PIAAC; GWA; KQUK; BIBB-BAuA; NEPS	2; 3; 5; 6; 7; 8; 9; 10; 13; 14; 15; 18
doing physical work	PIAAC; GWA; AQ; UK; NEPS	-
developing objectives and strategies for others	Fuchs 2003; Giesecke 2003; Koring 1992; Schützenmeister 2008; GWA; UK; BIBB-BAuA; HIS	3; 6; 17
conceiving of events	Giesecke 2003; Koring 1992; GWA; AQ	1; 2; 3; 5; 10; 11; 13; 15; 16; 17; 18
presenting in front of others	Fuchs 2003; PIAAC; SQ; KQ; AQ; UK; HIS; KOAB	1; 2; 5; 11; 12; 15; 16; 17
persuading others	PIAAC; GWA; SQ; KQ; UK; BIBB-BAuA; KOAB	3; 7; 14; 15
supporting and motivating others	Giesecke 2003; Schützenmeister 2008; GWA; KQ; UK; KOAB	17; 18
reacting to unexpected situations	NEPS; HIS; KOAB	1; 2; 3; 7; 9; 11; 12; 13; 14; 15; 18

Methods

- Items
 - Behaviour-related
 - e.g. “In my main occupation ... I organise work processes for others.”
- Answering scale
 - Frequencies
 - (1) Never (2) Less than once a month (3) At least once a month but less often than once a week (4) At least once a week but not daily (5) Daily
- Survey: *DZHW Graduate Panels 2001, 2005, 2009*
(17/12/2013 – 5/2/2014)

Invited	Participation	Employees
18.305	11.502	10.511

Areas of generic job-related activities and requirements

- Eight theoretical and empirical based areas:
 - 1) Planning
 - 2) Human development
 - 3) Counselling
 - 4) Dealing autonomously with challenging tasks
 - 5) Information processing
 - 6) Number processing
 - 7) Intercultural communication
 - 8) Physical performance

Generic job-related activities and requirements (CFA)

- Planning

Items (8)	α	λ
selecting personnel	.75	.43
organising work processes for others		.71
scheduling processes for others		.74
conceiving of events		.44
presenting in front of others		.51
producing something with others		.40
monitoring the compliance with law, guidelines or standards		.42
assessing performance or quality		.60

Generic job-related activities and requirements (CFA)

- Human development

Items (3)	α	λ
educating, teaching or training others	.81	.64
instructing and leading a group		.79
supporting and motivating others		.85

Generic job-related activities and requirements (CFA)

- Counselling

Items (5)	α	λ
dealing with external persons	.72	.36
negotiating with others		.64
developing objectives and strategies for others		.66
advising others		.57
persuading others		.69

Generic job-related activities and requirements (CFA)

- Dealing autonomously with challenging tasks

Items (9)	α	λ
identifying potential difficulties	.79	.68
investigating reasons of occurred difficulties		.56
dealing with complex difficulties		.55
considering possible implications		.57
familiarising oneself with new tasks		.50
looking independently for new tasks		.41
dealing with different tasks under pressure of time		.53
reacting to unexpected situations		.65
reflecting one's own feelings and actions		.57

Generic job-related activities and requirements (CFA)

- Information processing

Items (6)	α	λ
reading long specialised texts	.79	.70
writing long specialised texts		.58
researching complex issues		.68
documenting complex issues		.62
analysing information or data		.60
applying scientific methods		.60

Generic job-related activities and requirements (CFA)

- Number processing

Items (3)	α	λ
conducting complex calculations	.62	.63
cost planning		.36
producing number-based charts or tables		.82

Generic job-related activities and requirements (CFA)

- Intercultural communication

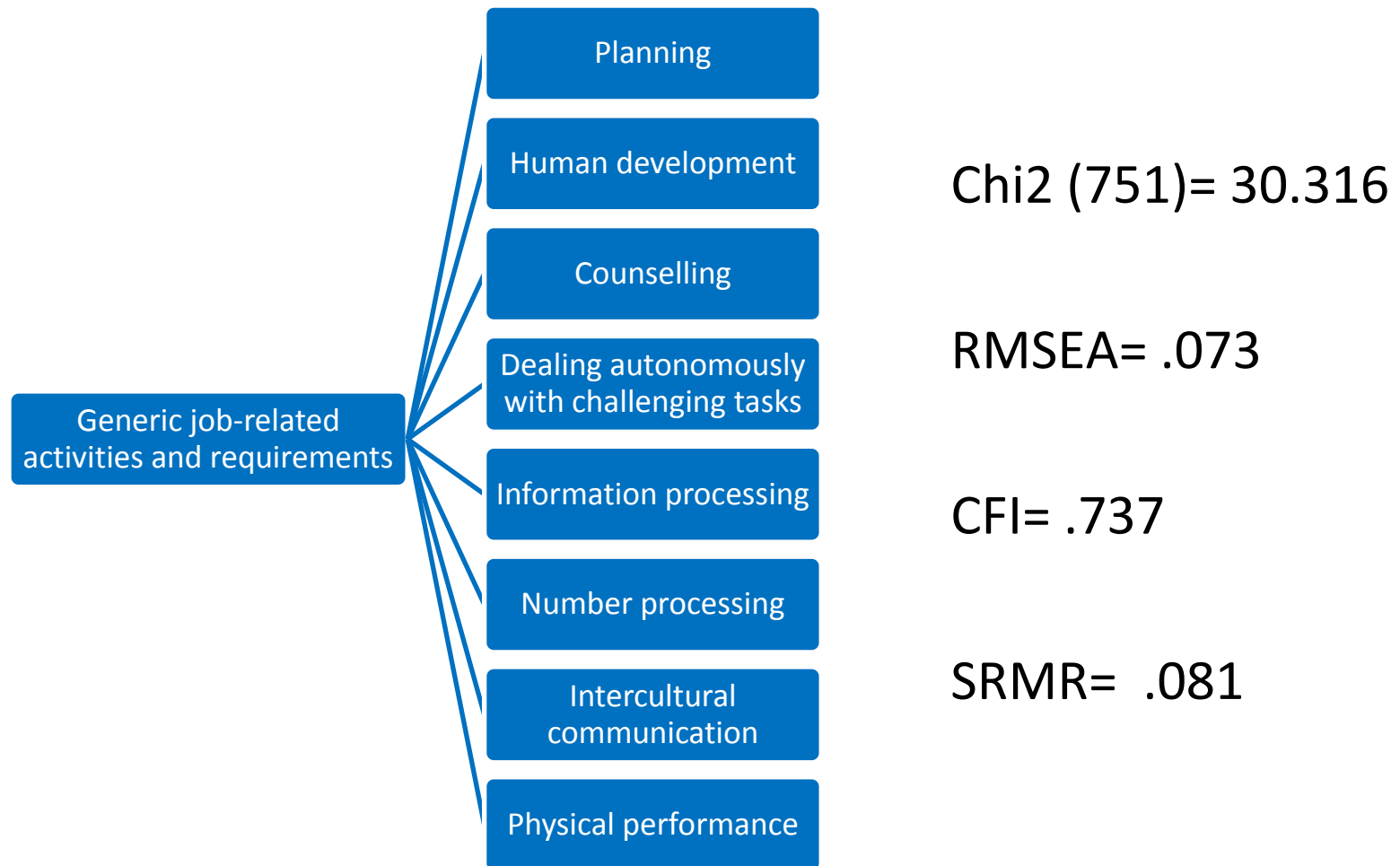
Items (4)	α	λ
dealing with persons with another cultural background	.74	.58
communicating in a foreign language		.88
using chats in order to exchange job-related information		.50
producing specialised texts in a foreign language		.72

Generic job-related activities and requirements (CFA)

- Physical performance

Items (3)	α	λ
doing physical work	.77	.75
working manually, creatively, and/or artistically		.80
handling technical devices		.65

Generic job-related activities and requirements (CFA)



What didn't work

- Area: Use of information and communication technologies
- Single items which have obviously been too specialised (not generic)
 - use of social media and websites in order to do public relations work
 - developing software
 - developing technical devices
 - caring for others

Resumee

- Graduates rated how often they master specific job-related activities and requirements. They weren't asked for the importance of activities or for self-judgments of competence levels. These results might be
 - supportive of getting a less biased view of graduates' competences.
 - interesting for developers of curricula/study programmes.
- We don't know yet how the resulting important generic competences can be promoted within higher education.

Discussion



Questions?



Remarks?

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Literature

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