WZB

Wissenschaftszentrum Berlin
für Sozialforschung

Deliverable 3.6: Analyzing determinants of participation in adult education

Chapter 4: Causes of labour market careers without further training

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Definition

Job-related non-formal training:

Job-related training courses that do not lead to a recognized certificate such as a college or vocational training degree.

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Importance of non-formal training

- Technological innovations require constant adaption to workplace- and occupational skill-requirements
- Persistence in training non-participation might cause skill obsolence
- Career stabilizing effect of non-formal training (Ebner & Ehlert, 2018)

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Causes of training participation?

- Previous educational attainment (Kramer & Tamm, 2018), selection into jobs with special working-place characteristics and task-profiles (**Chapter 3 (D3.6);** Görlitz & Tamm, 2016; Schindler, Weiss, & Hubert, 2011)

- Almost no research on **cumulative advantage** concerning training participation

> *"…the advantage of one individual or group over another grows (i.e. accumulates) over time, which is often taken to mean that the inequality of this advantage grows over time"* (DiPrete & Eirich, 2006)

Does future training participation depend on previous training experiences?

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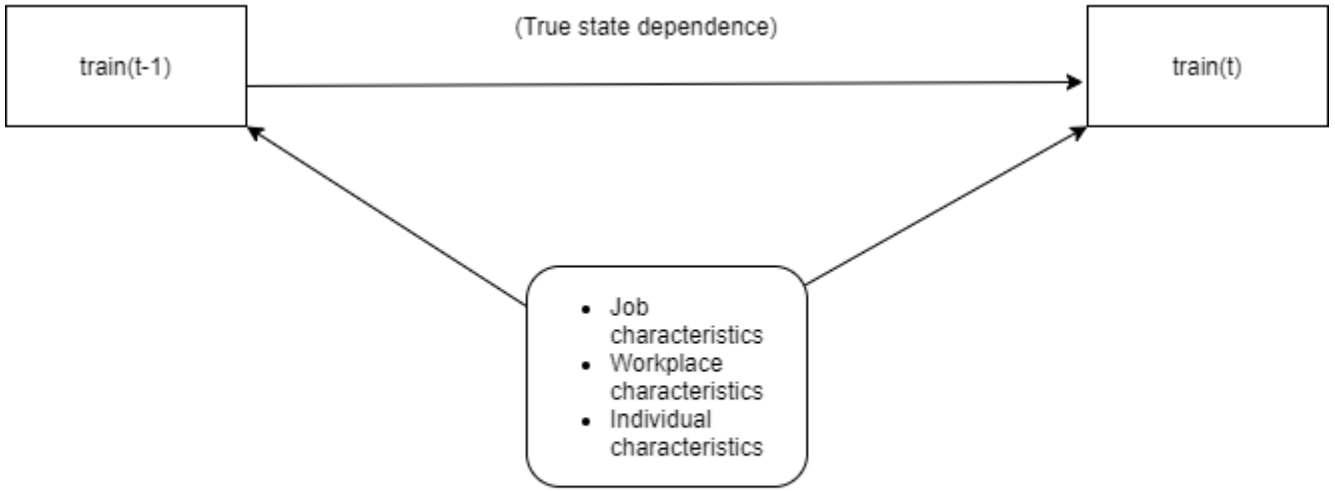
Analytical approach



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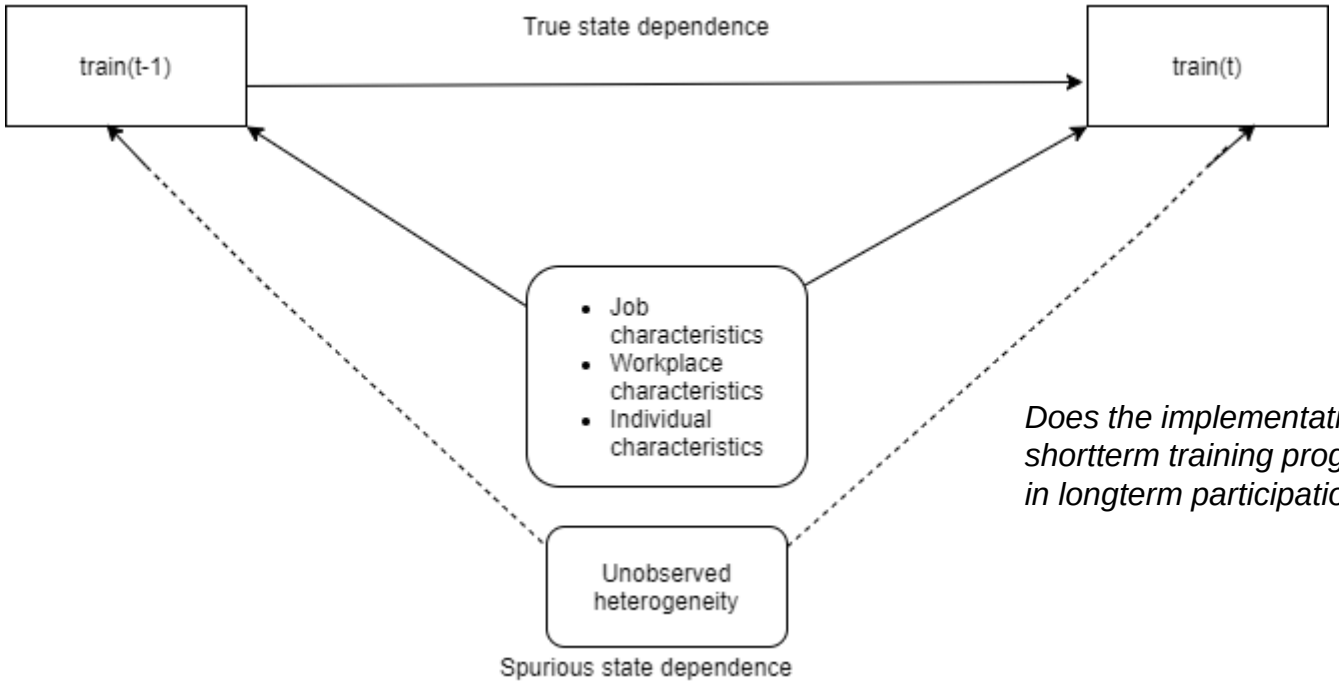

Does the implementation of shortterm training programs result in longterm participation?

Does future training participation depend on previous training experiences?

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Theoretical arguments and Hypotheses

Technology of skill formation
(Cunha & Heckman, 2007)

- Skills produced at one stage augment the skills attained at later stages (self-productivity)
- Skills produced at one stage raise the productivity of investment at subsequent stages (dynamic complementarity)

Self-productivity + dynamic complementarity = **multiplier effects**

Expectancy-Value theory
(Eccles, 2005)

- Success expectation and value attached to (educational) options influence educational decisions
- Circular perspective

H1: Participation in job-related non-formal training in one year increases the probability of training participation in the following year (in both countries under study)

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Theoretical arguments and Hypotheses

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H2: People with higher education exhibit a stronger effect of previous training participation on future training participation (in both countries)

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Theoretical arguments and Hypotheses

Germany as an OLM system
(Marsden, 1990; Gangl 2003)

- Labor market entrants already posses occupation specific skills (Gangl 2003)

Training = occupation-specific **skill-adaption**

UK as an ILM system (Gangl 2003)

- Labor market entrants posses general skills (Gangl 2003)

Training = occupation-specific **skill-formation**

Different functions of non-formal training

H3: In the UK, participation in non-formal training in one year does increase the probability of training participation in the following year to a higher extent than in Germany.

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Data

Germany

- German National Educational Panel Study (NEPS) – SC6
- Covers detailed life course information for 17,140 individuals born between 1944 and 1986
- We use wave 2 (2010 survey year) to wave 10 (2017 / 2018 survey year)

Sample selection (UK and Germany): aged between 25 and 55, include people in paid employment, exclude full-time students

UK

- Understanding Society, the UK Household Longitudinal Study (UKHLS)
- A longitudinal survey of the members of approximately 40,000 households (at Wave 1) in the United Kingdom.
- We use wave 2 (2010-2012 survey year) to wave 10 (2017-2019 survey year)

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Method

Dynamic random-effects probit models
(Grotti & Cutuli 2020, forthcoming)

Based on Rabe-Hesketh and Skrondal (2013) and Wooldridge (2005)

Confounder | Lagged dep. var. | Unobserved heterogeneity

$$y_{it}^{*} = \gamma Z_{it} + p y_{it-1} + c_i + u_{it}$$

$$c_i = a_0 + a_1 y_{i0} + \overline{Z}_i a_2 + Z_{i0} a_3 + a_i$$

Attempt to control for unobserved heterogeneity by controlling for **inital conditions** and **time-means** of observable time-varying variables

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Results

	Training participation t		No training participation t		Total
Germany					
Train. Part. T – 1	51.55		48.45		100
No train. Part. T – 1	23.48		76.52		100
	33.41		66.59		100
United Kingdom					
Train. Part. T – 1	50.86		49.14		100
No train. Part. T – 1	20.04		79.96		100
	29.39		70.61		100

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Persistence in (non-) participation

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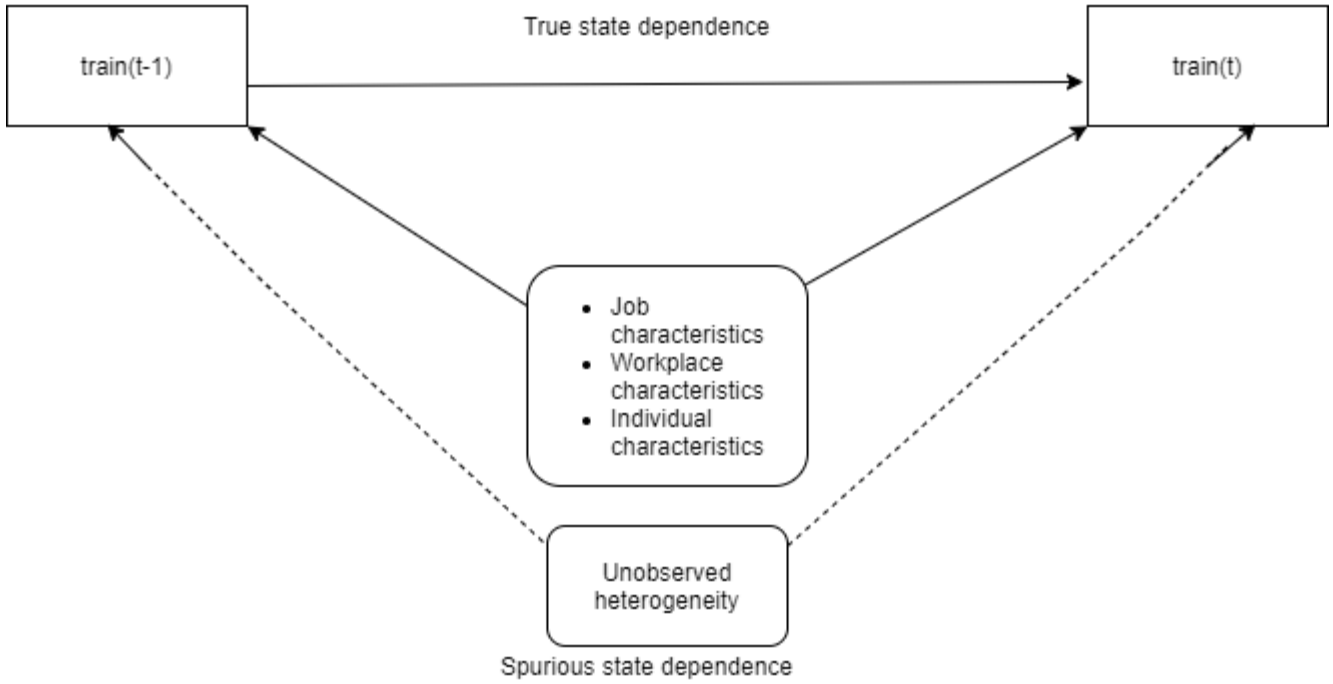
Results



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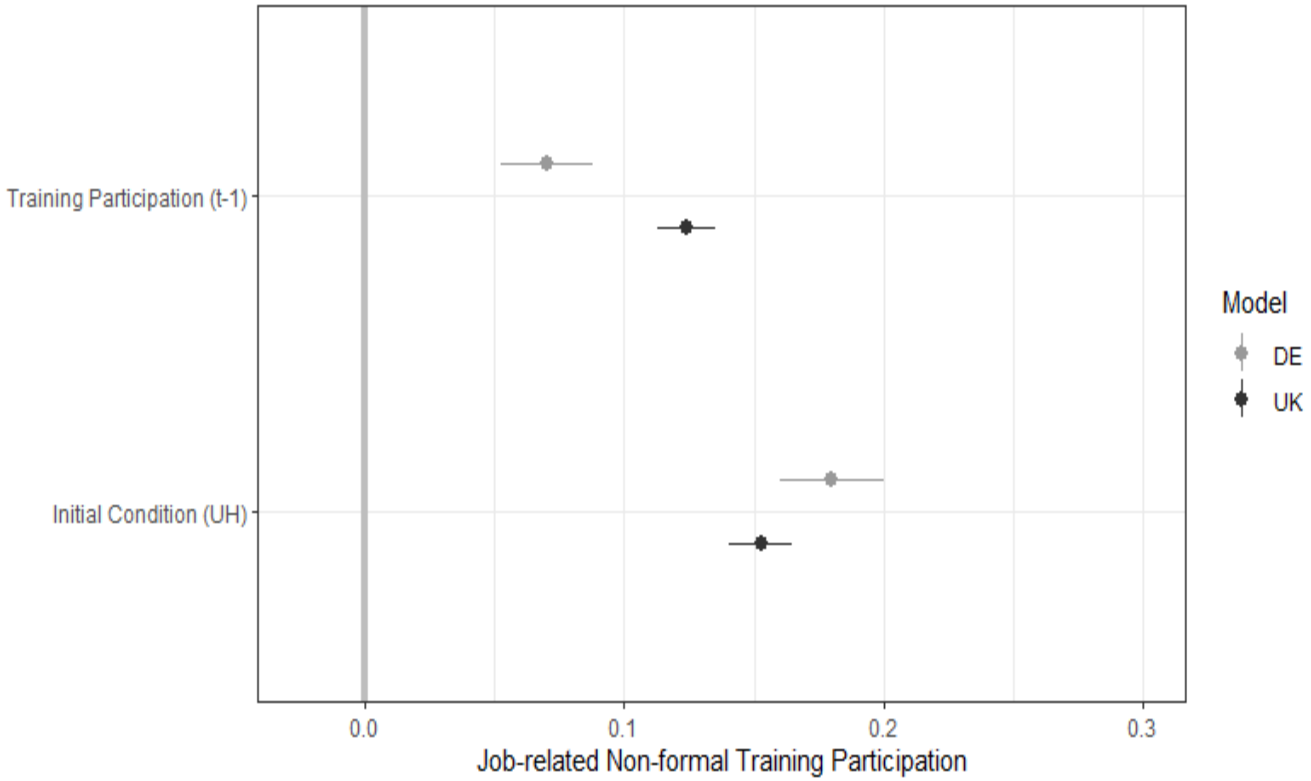
Results



Controlling for education, age, gender, familiy status, number of children, occupations, firmsize, fixed-term contract, parttime, change of occupation

+ initial conditions of time varying confounders and their time-means

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Results

VARIABLES	GERMANY	UK
job-related non-formal training (t-1)	0.07*** (0.01)	0.12*** (0.01)
job-related non-formal training (t0)	0.18*** (0.01)	0.15*** (0.01)
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1		
Controlling for education, age, gender, familiy status, number of children, occupations, firmsize, fixed-term contract, parttime, change of occupation + initial conditions of time varying confounders and their time-means		

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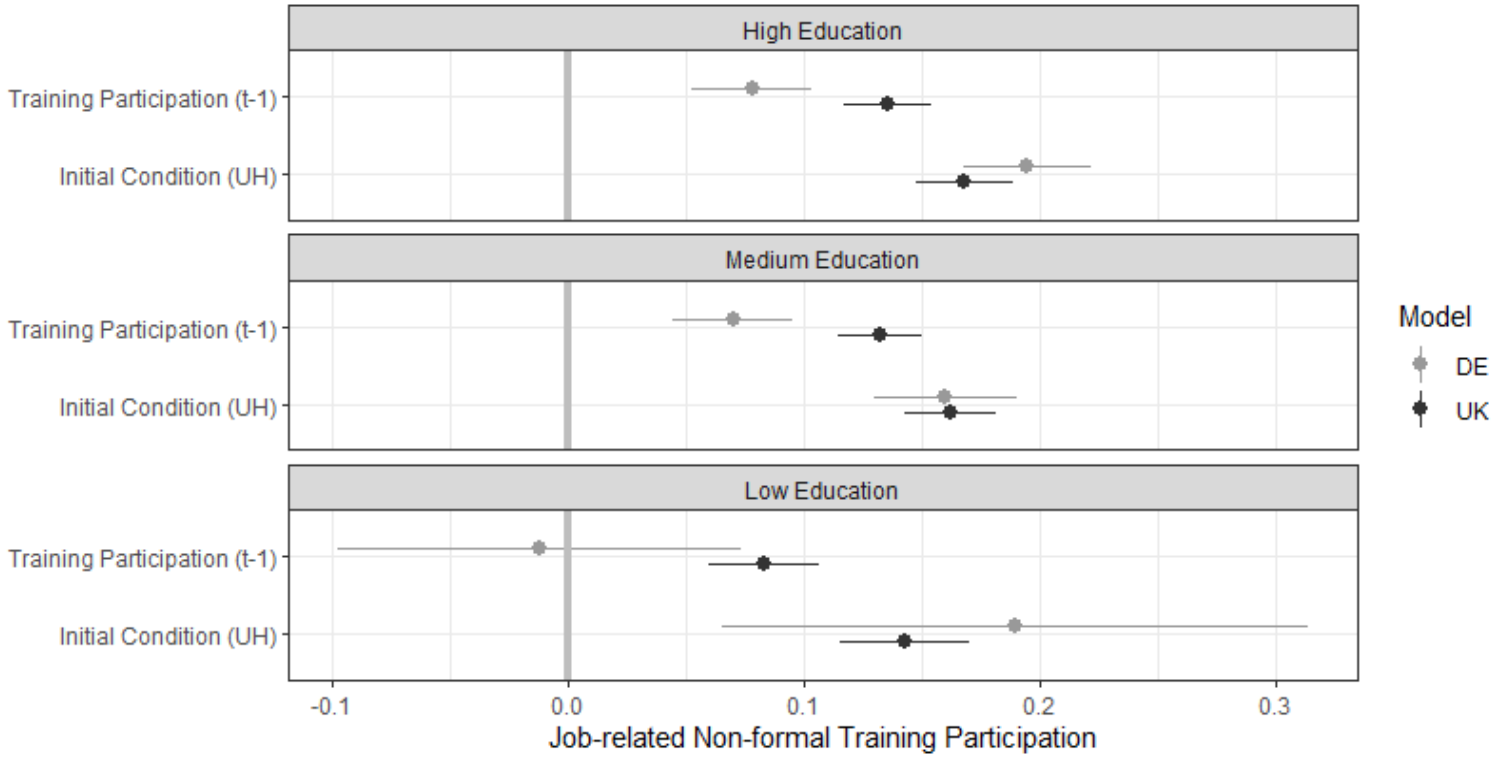
Results



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Summary

- We find that training begets training (and hence strict **cumulative advantage of training participation)** in both countries
(higher effects in the UK)

- Even after controlling for many relevant confounders:
Persistence in training (non) participation is rather caused by **unobserved factors** (especially in Germany)

- **Less-educated workers** benefit the least from previous training participation in both countries

- **Highest country differences** for the group of **less-educated workers**

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Policy Implications

Restructuring of learning-poor work environments, policies designed to increase training participation among disadvantaged worker groups, including less-educated workers (Chapter 3 (D3.6))

Aim: Create **cross-fertilizing momentums** for training participation.

- Increase cognitive connectivity between courses
- Build and maintain a positive foundation for meta learning as part of education and training curricula to increase cognitive and meta-cognitive skills such as learning-to-learn
- Educational reforms must contribute to the vision and norm of "lifelong learning"

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Thank you for your attention!

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