Too Much to Do – How Workload Moderates the Positive Association of Learning Goals and Learning Gains of University Scholars

Hein, J., Daumiller, M., Janke, S., Dresel, M. & Dickhäuser, O.
Introduction

University scholars’ learning at work

What?
- Content and methodological knowledge
- Didactical skills for teaching

... to teach students

... to conduct research
University scholars‘ learning at work

**What?**
- Content and methodological knowledge
- Didactical skills for teaching

**How?**
- Continuing education and workshops
- Conferences
- Exchange with colleagues
- Reading papers,…

... to teach students

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Introduction

University scholars’ learning at work

What?
- Content and methodological knowledge
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How?
- Continuing education and workshops
- Conferences
- Exchange with colleagues
- Reading papers,…

Why?
- … to teach students
- … to conduct research
Theoretical Background

- **Students**: learning goals correlate positively with educational outcomes (Senko et al., 2011)

- **University scholars**: learning goals are predictors for teaching quality and students’ learning gain (Daumiller et al., 2016)

- **Adults**: only learning goals are positively correlated with learning in this meta-analysis (Payne et al. 2007)

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Learning goals + Learning gain
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e.g. Dweck (1986); Nicholls (1984); Ranellucci, Hall & Goetz (2015)
Theoretical Background

- Process model of selfregulated learning (Schmitz & Wiese, 2006)
- Possible moderator: workload
  - University scholars pursue their (learning-) goals to a lesser extent, caused by a conflict of resources (e.g. limited time)
Hypotheses

**H1:** University scholars learning goals positively predict self-reported learning gain
   a) in the teaching domain
   b) in the research domain

**H2:** The strength of perceived workload weakens this positive association.
   a) in the teaching domain
   b) in the research domain
**Method**

**Representative sample:** 705 German university scholars of 12 different divisions (46% female, 38.7 years on average, 27 % professors)
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**Learning goals**, e.g., „In my current teaching/research activities I want to constantly improve my competences.“

**Emotional exhaustion** in the last 6 months, e.g., „I feel emotionally exhausted by my work."

**Learning gain** in the last 6 months, e.g., „To what extent have you enhanced your professional competence for teaching/research in the last 6 months?“
## Method

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<thead>
<tr>
<th>Time point</th>
<th>Construct</th>
<th>Scale</th>
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<th>Item(s)</th>
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### Descriptive Data

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<td>2) in research (T1)</td>
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<td>3) at work (T2)</td>
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<td>Learning gain</td>
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<td>4) in teaching (T2)</td>
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<td>5) in research (T2)</td>
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<td>0.09</td>
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\[N = 702, \ p < .001\]
Results

In the teaching domain:

\[ \beta = .25^{**} \]

Bivariate model with standardized regression coefficients. Model fit: AIC = 9,387.76, BIC = 9,501.60; Estimator = MLR.
Results

In the teaching domain:

Estimated interaction model with standardized regression coefficients.
Model fit: AIC = 14,871.78, BIC = 15,067.60; Estimator = MLR.
In the teaching domain:
Results

In the research domain:

- Bivariate model with standardized regression coefficients.
- Model fit: $AIC = 9,079.48$, $BIC = 9,193.26$; Estimator = MLR.

$\beta = .21^{**}$

*$p < .05$  
$**p \leq .01$
In the research domain:

Estimated interaction model with standardized regression coefficients. Model fit: AIC = 14,569.29, BIC = 14,764.98; Estimator = MLR.
Results

In the research domain:

![Graph showing learning gain vs. learning goals]

- Low emotional exhaustion
- High emotional exhaustion

Low learning goals  High learning goals
Discussion

Too much to do:

Does workload moderate the positive association of learning goals and learning gains of university scholars?

We need future research to answer this question:

- Use different indicators
- Replicate the moderation effect
- Explain the missing moderation effect in the research domain
Discussion

Summary:

- Learning goals → Self-reported learning gain (in teaching and research)
- Emotional exhaustion weakens the positive effect in the teaching domain

Implications:

- Emotional exhaustion and learning goals as possible starting points for future trainings?
Literature


- Büsing, A. & Glaser, J. (1998). Managerial stress und burnout. A collaborative international study (CISMS); the German investigation. TU, Chair of Educational Psychology.


