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Overview of Resource Diagnostic Instruments for Human Resources Management in Times of Digital Transformation

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Purpose: This study provides the current state of research on resource diagnostic instruments in the digital work context for Human Resource Management (HRM).

Study design/methodology/approach: This study utilizes a multilevel research design aligned with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach based on Willems (2020). It examines resource diagnostics from various research traditions and explores their applications in the digital work context.

Findings: The study reveals that HRM research underutilizes various resource diagnostic instruments in digital work contexts, highlighting the importance of the spectrum of employee resources.

Originality/value: The study provides a resource diagnosis toolkit tailored for the HRM context and promotes interdisciplinary research transfer and open research.

Introduction

The digital transformation radically changes the labor market, leading to job insecurity and profound changes in job roles (Lühr et al., 2020; Merchel et al., 2022). Accompanying employees during the professional upheaval is the central focus of Human Resource Management (HRM), which has traditionally concentrated on defining job demands and deriving competence requirements for new work conditions (Gramß et al., 2020; Kauffeld & Rothenbusch, 2023; Matthes, 2023; Rump & Eilers, 2021; Schnalzer et al., 2022; Seufert et al., 2018). However, HRM often underestimates the importance of employee resources, although research demonstrates that resources are crucial for adapting to these professional changes (Alvaro et al., 2010; Bakker et al., 2023; Demerouti, 2022; Demerouti & Bakker, 2023; Evers et al., 2015).

We understand the term *resources* as supportive factors for employees' professional upheaval, including resilience, skills variety, and supervisory support (Demerouti et al., 2001; Reif et al., 2021a; Schubert & Knecht, 2020). In addition to determining competence requirements, we believe resource-oriented practices will be indispensable for future HRM, as the rapid pace of digital technology change demands agile and responsive personnel development (Graf et al., 2019; Heerwagen et al., 2023; Kauffeld & Rothenbusch, 2023; Knappertsbusch & Wisskirchen, 2023; McMackin & Heffernan, 2021). One such practice is resource diagnostics, a crucial and effective first step for HRM in preparing for and supporting digital transformation (Demerouti, 2022; Marsh et al., 2022; Massa et al., 2023; Scholze & Hecker, 2024; Tarafdar et al., 2015).

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Our assumption is grounded in the *Job Demands-Resources Model (JD-R)*, which posits that resources moderate job demands and positively influence employees' wellbeing and personal growth (Bakker, 2011; Bakker & Demerouti, 2007; Demerouti et al., 2001; Schaufeli & Taris, 2014; Xanthopoulou et al., 2009). Due to its heuristic nature, the JD-R research identified a wide range of employee resources (Bakker & Demerouti, 2017; Schaufeli & Taris, 2014) but currently lacks a resource diagnosis toolkit for studying digital transformation (Demerouti & Nachreiner, 2019; Oberthaler, 2018; Ruch et al., 2022).

Therefore, the primary goal of this paper is to fill the research gap by exploring existing resource diagnostic instruments and systematically reviewing their application to the digital work context. Our review is followed by the research questions: What resource diagnostic approaches exist in HRM literature, and how does HRM research apply these resource diagnostic instruments to the digital work context?

By addressing these research questions, we aim to provide valuable insights into the current state of resource diagnostics in HRM and identify areas for future research. Our approach is engaging with different research traditions, providing a broader discourse perspective, and enabling new research questions. As a result, the review paper provides a collection of resource diagnostic instruments and a structured and category-based overview of papers that use these instruments in the digital work context. This overview encourages HRM researchers and practitioners to explore and support employee wellbeing in a digitalized work environment.

The review paper first presents the theoretical background, emphasizing the importance of resource diagnostics in digital transformation, before we explain our methodology. Our research used a multistage research design adapted from the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method* based on Willems (2020). The resource diagnostic instruments were collected exploratively. The instruments' names were used as search terms for the systematic literature review to investigate their application in the digital work context. The generated database was systematically analyzed, coded, and synthesized (Willems, 2020). Subsequently, the paper presents, discusses, concludes, and critically evaluates our findings. Our research is innovative as it focuses on employee resources in the digitalized working world (Lee et al., 2020; Reif et al., 2021b), an area that, according to our study findings, has yet to be extensively researched.

Theoretical background

This section presents the theoretical foundations that underscore the importance of resource diagnostics for HRM. We first define our understanding of digital transformation and its impact on employees, which we explain with the fundamental hypotheses of the JD-R model.

Digital transformation, a term used inflationary in academia, is defined as a profound change in how organizations function, driven by the transformative power of digital technologies (Gong & Ribiere, 2021; Verina & Titko, 2019; Zhang & Chen, 2024). These digital technologies, which encompass a wide range of Information Technology (IT) concepts and electronic devices, such as digital learning media, robotics, wearables like smartwatches, and Artificial Intelligence (AI), bring about significant organizational change that simultaneously affects the business model, customer experience, processes, and employees (Gong & Ribiere, 2021; Ismail et al., 2017; Verina & Titko, 2019; Zhang & Chen, 2024).

In our understanding, digital transformation is creative destruction (Merchel et al., 2022; Wunder, 2021) and triggers a *metamorphosis* for employees (Gong & Ribiere, 2021; Tushman & Romanelli, 1985) that leads to an irreversible change in their profession (Lühr et al., 2020; Merchel et al., 2022; Verina & Titko, 2019). This change reshapes their professional role, and employees must outgrow to progress in the digitalized environment (Gong & Ribiere, 2021;

Lühr et al., 2020; Tushman & Romanelli, 1985). Consequently, digital transformation initiates a professional upheaval beyond mere professional development; for some, it is a critical life event (Hlubucek, 2016; Lühr et al., 2020; Merchel et al., 2022).

Professional upheaval is most transparent when digital technologies threaten employees' workplaces (Braun et al., 2023; Demary & Mertens, 2023; Dengler & Matthes, 2021). However, even employees who keep their jobs often perceive digital transformation as a crisis (Demerouti, 2022; Lühr et al., 2020; Merchel et al., 2022; Scholze & Hecker, 2023) due to overwhelming job demands that disrupt established routines (Hlubucek, 2016; Loreto et al., 2022; Marsh et al., 2022; Scholze & Hecker, 2024; Walsh, 2024; Wrede et al., 2021). The effects of an overwhelmed employee are performance loss, stress, and dissatisfaction (Demerouti et al., 2001; Mazzetti et al., 2023). These individual struggles, when accumulated, lead to negative organizational outcomes (Demerouti & Bakker, 2011; Fischer et al., 2023).

The extent to which employees perceive the professional upheaval and the associated loss of their professional role as a critical life event and, as a result, how much stress employees experience during the digital transformation depends essentially on the subjective appraisal of their available resources (Hlubucek, 2016; Reif et al., 2021b).

The JD-R model illustrates the function of resources (Crawford et al., 2010; Demerouti et al., 2001; Demerouti et al., 2019; Reif et al., 2021a) by incorporating the Lazarus's *Appraisal Theory* (Demerouti et al., 2001; Hlubucek, 2016; Lazarus, 1966; Lazarus & Folkmann, 1984; Reif et al., 2021b). According to Lazarus, resources are central to the subjective appraisal of stress (Crawford et al., 2010; Ernst et al., 2022; Hlubucek, 2016; Moors et al., 2013; Reif et al., 2021a). To define resources, the JD-R model integrates Hobfoll's *Conservation of Resources (COR) theory* (Alvaro et al., 2010; Hlubucek, 2016; Hobfoll, 1998, 2002; Xanthopoulou et al., 2007), describing *resources* as all positively valued aspects that support employee change (Alvaro et al., 2010; Hlubucek, 2016; Hobfoll, 2002; Hobfoll et al., 2018; Schaufeli & Taris, 2014; Xanthopoulou et al., 2007). Hence, the JD-R model emerged as a heuristic framework for examining *any* supportive factor to assess its potential to influence employee wellbeing positively (Bakker & Demerouti, 2007, 2017; Bakker et al., 2007; Schaufeli & Taris, 2014).

Over the years, JD-R research has identified numerous constructs that function as employee resources (Lee et al., 2020; Reif et al., 2021b; Schaufeli & Taris, 2014). As an occupational psychology model, it initially focused on environmental resources in the work context, termed job resources (Demerouti et al., 2001; Schaufeli & Taris, 2014). *Job resources* include aspects of work that are related to the task (e.g., task variety, job control), professional development (e.g., performance feedback, career perspectives), social environment (e.g., coworker support, role clarity), and organizational conditions (e.g., fair pay, trust in leadership) (Schaufeli, 2017; Schaufeli & Taris, 2014; Schulte et al., 2021).

Later, JD-R researchers integrated personal resources upon discovering their moderating effect on job demands (Demerouti & Nachreiner, 2019; Schaufeli & Taris, 2014; Tremblay & Messervey, 2010; Xanthopoulou et al., 2007, 2009). Personal resources refer to psychological characteristics and include positive self-assessments (e.g., resilience, optimism, self-efficacy) (Schaufeli, 2017; Schaufeli & Taris, 2014). However, today's JD-R model does not restrict employee resources to the work context; it also values resources from the private context, such as support from family (Demerouti & Bakker, 2023; Lee et al., 2020). Therefore, our paper uses the term *environmental resources* to encompass resources from different contexts.

In the context of digital transformation, the JD-R model demonstrates that employee resources reduce job demands and technostress and help maintain employees' wellbeing (Demerouti, 2022; Hang et al., 2021; Pansini et al., 2023; Reif et al., 2021b; Schaufeli & Bakker, 2004; Schaufeli & Taris, 2014). Hence, JD-R researchers gain interest in studying digital technologies

as a resource, as their user-friendly technical characteristics impact employees' wellbeing (Demerouti, 2022; Marsh et al., 2022; Scholze & Hecker, 2023, 2024).

Although JD-R research attempts to create an overview of the resource constructs (Lee et al., 2020; Reif et al., 2021b; Schaufeli & Taris, 2014; Schulte et al., 2021), there is currently no resource diagnosis toolkit (Demerouti & Nachreiner, 2019; Ruch et al., 2022). Providing an overview of resource diagnostic instruments not only inspires JD-R scholars to study the resource function in the digital work context but also lays the foundation for the development of new resource diagnostic instruments, which are essential for the advancement of the research field (Demerouti & Nachreiner, 2019; Oberthaler, 2018; Ruch et al., 2022).

Methodology

For our study, we chose a systematic literature review to analyze and structure the current state of research on our defined topic, aiming to provide a comprehensive picture and draw meaningful conclusions (Kitchenham & Charters, 2007; Oakley, 2017; Willems, 2020; Xiao & Watson, 2017). Consequently, this paper offers an overview of resource diagnostics and their application in HRM research in the digital work context. To achieve this, we employed a multistage research design based on the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)* guidelines based on Willems (2020) to address the research problem and to answer our research questions.

The research design allowed us to examine peer-reviewed studies using the identified resource diagnostic instruments in a digital work context and determine study-level characteristics (Snyder, 2019). For the selected papers, we examined the study's aim, the methodological purpose of the resource diagnostic instrument, and how the study is related to the digital work context. The research took place from January to August 2023. The following figure illustrates our multistage research design based on the PRISMA approach based on Willems (2020).

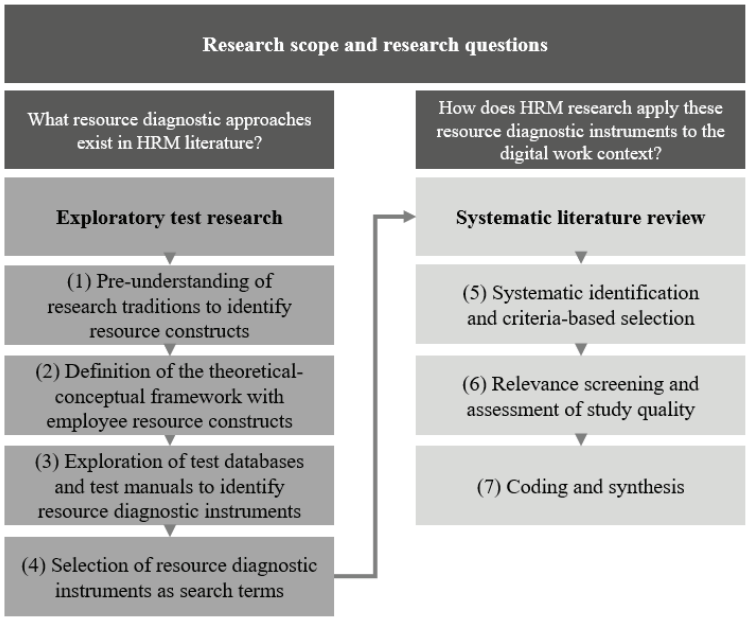


Figure 1: Multistage research design based on Willems (2020)

The multistage research design forms the basis for our research interest. In the first step, we explored which resource diagnostic instruments exist in interdisciplinary HRM research. We chose the exploratory approach because different research traditions developed resource diagnostic instruments; therefore, an in-depth analysis of all publications is impossible (Snyder, 2019; Wong et al., 2013). Starting from the founders of resource orientation in health

psychology (Härter et al., 2015; Reif et al., 2021b; Willutzki, 2003), we followed the discourse to today's technostress research (Demerouti, 2022; Klesel et al., 2018; Komorowski & Vieten, 2022; Reif et al., 2021b). Exploring the research field enabled us to consolidate the research discourse and identify instruments for the whole spectrum of employee resources.

Initially, we studied manuals on the research fields (Frey et al., 2007; Konradt & Zimolong, 2006; Schuler & Sonntag, 2007) and publications with comprehensive descriptions of resources to develop an understanding (Reif et al., 2021a; Stegmann et al., 2010; VBG, 2019). We then used the identified resource constructs as a theoretical-conceptual framework to address our first research question: what resource diagnostic approaches exist in HRM literature?

Our study excluded instruments measuring output factors, such as wellbeing, motivation and performance. As a data source for the exploratory test research, we reviewed manuals on psychological instruments (Brähler et al., 2002; Kauffeld, 2019; Looti, 2023; Ruch et al., 2022; Sarges & Wottawa, 2004; Sarges et al., 2010) and psychological test databases such as PSYNDEX (Leibniz-Institut für Psychologie [ZPID], 2023), ZIS (Leibniz-Institut für Sozialwissenschaften [GESIS], 2023), and Testzentrale (Hogrefe Verlag, 2023). Additionally, we explored previous research in resource diagnostics (Beesdo-Baum, 2011; Oberthaler, 2018; Rüesch et al., 2007) to identify instruments as search terms for the systematic literature review.

For the systematic literature review, we meticulously selected the WISO database for its comprehensive coverage of the research field, including full texts from over 600 business and social sciences, psychology, and engineering journals (GBI-Genios, 2024). Our search strategy involved a full-text phrase search, entering the full name of the identified resource diagnostic instruments in German and English when available (Jele, 2003). For cases with generic names (i.e., "Coping"), we added the abbreviation or author of the resource diagnostic instrument to the search entry (i.e., "Coping + Jerusalem + COP").

The following criteria guided our relevance screening. For the data selection, we only included articles from peer-reviewed journals among professionals in European corporate contexts from 2008 onwards. Therefore, we assessed the period, region, and publication type, as well as the research discipline, target group, and subject, to evaluate the relevance of the search results.

For the in-depth assessment of the study quality and to find answers to our second research question on how HRM research applies resource diagnostic instruments to the digital work context, we used the following German and English keywords to verify the full text of the selected peer-reviewed articles: information, digital*, elektro*, electro*, media*, medie*, and techn*. A research table with the Microsoft Office program Excel helped document data selection and data coding. To support the research process, we systematically coded the selected peer-reviewed papers as "no reference", "trend reference", and "reference" to the digital work context. This coding scheme helped us systematically evaluate the relevance of the peer-reviewed articles. As a trend reference, we coded peer-reviewed articles that contained keywords but did not reference digitization in their study design. These studies were excluded in further stages because they did not use resource diagnostics in the digital work context.

For the final database, we excluded duplicates and retained only studies directly related to the digital work context. In the final step, we tabulated and enriched the included peer-reviewed studies with information to structure the data selection. This process ensured that the presentation of the results included a structured and category-based overview with the author, publication year, journal name of the article, additional information, such as the resource diagnostic instrument(s) used, information about the sample, and a summary of our study.

Findings and current state of research

The purpose of HRM research in times of digital change is to identify the digital opportunities and implications in HRM functions and to make the optimal use of the workforce in terms of quantity and quality while improving employee wellbeing (Nicolai, 2021; Schellinger et al., 2020). We believe that resource diagnostics is an essential field of HRM research because it identifies the supportive factors employees need for their professional change in a digitalized work environment (Bakker & Demerouti, 2007, 2008; Crawford et al., 2010; Lesener et al., 2019; Tremblay & Messervey, 2010; Xanthopoulou et al., 2007).

In the following, we present our key findings of the current state of the application of resource diagnostic instruments in the digital work context using the PRISMA approach based on Willems (2020) in the WISO database. Our study results show a broad spectrum of research on resource diagnostics in HRM literature and highlight gaps in the digital work context.

Approaches of resource diagnostics in HRM literature

The first research question, "What resource diagnostic approaches exist in HRM literature?" already implies that we assumed different methods for resource diagnostics due to the interdisciplinary nature of HRM research (Dehnbostel, 2018). Therefore, the first step of the exploratory test research was to understand the variation in employee resources to build a theoretical-conceptual framework of resource constructs. We explored the research traditions of resource diagnostics and identified key resource constructs for the exploratory analysis.

Our exploratory study determined ten main strands of research that contribute differently to resource diagnostics by studying employee resources from the personal or environmental perspective. Table 1 presents our results, highlighting the research strands.

Table 1: Theoretical-conceptual framework based on research traditions

Research tradition	Contribution	Dimension	Resource construct
Health and Clinical Psychology	foster health	personal resources	sense of coherence, hardiness, resilience, recovery, social support, psychological safety
Positive Psychology	promote wellbeing	personal resources	optimism, hope, mindfulness, character strengths
Educational Psychology	encourage learning	personal resources	self-efficacy, self-concept
Management Research	enhance career	personal resources	perceived organizational support, career adaptability, psychological capital
Organizational Psychology	research supportive culture	environmental resources	team climate, corporate culture
Business and Adult Education	support learning	environmental resources	scope for action, social support
Engineering Psychology and Business Informatics	develop human-enhancing technology	environmental resources	usability, utility, desirability, user experience
Occupational Psychology	increase motivation	personal and environmental resources	job characteristics, work design, job crafting, social support
Leadership Research	understand health-orientated leadership	personal and environmental resources	leaderships style, self-care, staff-care
Occupational Safety and Ergonomics	understand risk factors in the workplace	job demands and stressors	work overload, uncertainty, invasion of privacy

Table 1 illustrates that the first research strand focuses on personal resources. Initially, *Health and Clinical Psychology* invented diagnostics of personal resources. The research examines

personal health-promoting factors, such as sense of coherence, resilience, and hardiness (Antonovsky, 1979; Härter et al., 2015; Kobasa, 1979; Reif et al., 2021a; Schubert & Knecht, 2020). More recent research examines the personal resource constructs of recovery and psychological safety (Newman et al., 2017; Reif et al., 2021b; Sonnentag et al., 2021).

A closely related line of research is *Positive Psychology*, which investigates wellbeing through personal resource constructs such as optimism, hope, mindfulness, and character strengths (Gruman & Budworth, 2022; Krafft & Walker, 2018; Linley et al., 2010; Paul & Garg, 2014; Synder & Lopez, 2002).

Moreover, *Educational Psychology* contributes by analyzing developmental factors, such as the personal resource constructs of self-efficacy and self-concept (Bandura, 1977; Gist, 1987; Koch, 2005; Shavelson et al., 1976).

Management Research follows a similar path by examining career-enhancing factors, including personal resource constructs, career attitudes, and career adaptability (Potgieter et al., 2019; Savickas & Savickas, 2017). Management researchers have conceptualized a multidimensional personal resource construct psychological capital that utilizes constructs from Health and Positive Psychology (Avey et al., 2009; Luthans et al., 2004).

The second research strand primarily studies environmental resources. In particular, *Organizational Psychology* examines interactions between individuals, teams, and organizations, developing environmental resource constructs such as corporate culture and team climate (Kluge, 2021; Nerdinger et al., 2019; Spieß & Rosenstiel, 2010).

In contrast, *Business and Adult Education Research* identifies learning-supportive workplace characteristics, such as social support and scope of action (Cernavin, 2018; Dehnbostel, 2008, 2018, 2022; Richter et al., 2018; Schaper, 2021).

Engineering Psychology, a relatively new branch of resource diagnostics inspired by Business Informatics, focuses on human-machine interaction, such as environmental resource constructs, user experience, desirability, and usability (Konradt & Zimolong, 2006; Libert et al., 2020).

Traditionally, *Occupational Psychology* has focused on environmental factors that enrich jobs and promote motivation, such as job characteristics (Hackman & Oldham, 1976; Reif et al., 2021a; Schuler & Sonntag, 2007; Stegmann et al., 2010). Recently, this field has also begun to study work-life balance (Becker, 2012) and job crafting, which also preserves personal resources like self-efficacy and environmental resources like supportive working conditions (Rudolph et al., 2017; Wrzesniewski & Dutton, 2001).

Leadership Research, positioned between Occupational Psychology and Management Research, discusses leadership styles like health-promoting leadership, including staff care. Since leaders are individuals, it also researches intrapersonal characteristics, such as self-care (Felfe, 2015; Franke et al., 2014; Reif et al., 2021a).

Our study briefly examined *Occupational Safety and Ergonomics* due to its long European tradition. However, this research primarily focuses on hazard assessment to identify workplace risk factors and stressors, such as work overload, uncertainty, invasion of privacy (Komorowski & Vieten, 2022; Neuner, 2012; Schmauder & Spanner-Ulmer, 2022; Seidler, 2015; Uhle & Treier, 2015), which are considered job demands in the JD-R model (Demerouti et al., 2001; Schaufeli & Taris, 2014). Consequently, we excluded this strand from our analysis.

The primary distinction between personal and environmental resources lies in their perspective on the research object. This division is standard in the social sciences (Buttner et al., 2018) and aligns with the state-of-the-art JD-R model (Demerouti & Bakker, 2023; Demerouti & Nachreiner, 2019; Schaufeli & Taris, 2014), as described in the theoretical background.

The first research question aimed to understand resource diagnostics in HRM research and identify resource diagnostic instruments for our systematic literature review. Through a comprehensive exploratory test research, we identified 529 resource diagnostic instruments. However, not all instruments were available, preventing a precise distribution assessment between those measuring personal and environmental resources. Despite this, the identified resource constructs appeared well-balanced, indicating that both perspectives are crucial for understanding the variation of employee resources.

Analyzing the use of resource diagnostic instruments: insights from the WISO database

Building on the exploratory test research that resulted in resource diagnostic instruments listed alphabetically in Appendix A, our systematic literature analysis of the WISO database aimed to answer the second research question, "How does HRM research apply these instruments in the digital work context?". Table 2 summarizes our results following the PRISMA process based on Willems (2020), and we explain how we derived the results in the following section.

Table 2: Results from the systematic literature review from the WISO database

Search hits	Criteria-based selection	Review of study quality without duplicates	Reference to digital-work context
2,439	304	199	47

Table 2 shows that entering the names of 529 resource diagnostic instruments into the WISO database generated generated 2,439 search results. Using the PRISMA approach (Willems, 2020), we identified 304 relevant peer-reviewed papers based on inclusion and exclusion criteria, focusing on studies among professionals in European corporate contexts from 2008 onwards. Most exclusions were due to publication year, document type, context, research discipline, subject, and target group. After removing duplicates, we analyzed the study quality of 199 peer-reviewed articles and finally identified 47 papers in the digital work context.

We excluded most search hits because of the publication year (22 percent) and document type (29 percent). We decided to restrict the period because the *European Commission* intensified its activities through the Lifelong Learning Program and prioritized digitization in 2007 (European Commission, 2000, 2008; Leibniz-Instituts für Wissensmedien [IWM], 2023; Revermann, 2004). Therefore, we ignored literature from earlier years or publications in practice books, textbooks, newspapers, and manuals. Moreover, we excluded studies from non-European countries and strictly rejected papers from non-relevant contexts, such as school, university, clinical or client contexts (17 percent). Additionally, we noted that some resource diagnostic instruments are ambiguous, such as the "resilience scale" for assessing water or societal resilience. Consequently, we systematically excluded studies from the geosciences and sociology as they were irrelevant to the HRM context (3 percent). We also reviewed the focus of the studies and excluded papers that focused on comparing cultures, ages, or gender (5 percent). Furthermore, we ignored non-workplace target groups, such as seniors, patients, nurses, or soldiers, and target groups still in training, like students or apprentices (14 percent).

Following this, we obtained 304 search hits. After removing duplicates because studies used multiple resource diagnostic instruments (4 percent), we kept 199 peer-reviewed articles for the study quality assessment. This assessment identified 47 studies that used resource diagnostic instruments in a digital work context. The remaining 152 publications did not mention digitization keywords (57 percent) or only referenced digitalization as a trend without applying it to the study (20 percent). Appendix B provides a tabular summary of the coded studies.

From our systematic literature search in the WISO database, we obtained at least one search hit for 271 out of 529 instruments (51 percent) during the systematic literature review in the WISO

database, indicating some level of recognition. However, 258 instruments had no search hits (49 percent), highlighting a significant gap in their application within HRM literature and the need for further investigation into their underutilization. After the criteria-based selection, we excluded another 170 resource diagnostic instruments (32 percent), leaving 101 instruments for our study quality assessment (19 percent). Upon evaluating their application in the digital work context, only 37 instruments remained in our final database (7 percent), as shown in Table 3.

Table 3: Application of resource diagnostic instruments in the HRM literature

Resource diagnostic instruments	Instruments with search hits	Instruments reviewed for study quality	Instruments with reference to digital-work context
529	271	101	37

Our results from the systematic literature review in the WISO database indicate that HRM researchers underutilizes resource diagnostic instruments in the digital work context. To date, HRM research has only used a few resource diagnostic instruments and tends to use instruments for analog work contexts and target groups with high-stress factors, such as soldiers or nurses. The underutilization of resource diagnostics instruments in the digital work context implies a notable gap in HRM research since studies demonstrate that employees in digitized professions experience high-stress levels (Demerouti, 2022; Hang et al., 2021; Pansini et al., 2023; Pfaffinger, 2020; Reif et al., 2021b). To differentiate this finding, we provide a detailed analysis of the 47 identified articles at the study level, presented graphically in Appendix C.

In-depth analysis of the application of resource diagnostic instruments in HRM literature

Although our study results suggest that HRM research has underutilized resource diagnostic instruments in the digital work context, a closer analysis reveals a significant increase in researchers' interest in this context since the COVID-19 pandemic (49 percent).

At the study level, it shows that nearly half of the included studies employ qualitative theory-building methods (45 percent), for example, literature reviews (Kaiser et al., 2021; Muhs et al., 2018), diaries (Eichberger et al., 2021; Reinke & Ohly, 2021), and interviews (Förster & Duchek, 2017; Schwind & Yetim, 2022). The other half are quantitative studies (55 percent), for example, to validate developed resource diagnostic instruments (Bates et al., 2012; Kauffeld, 2021; Schulte et al., 2021; Stegmann et al., 2010) and to measure specific resource constructs, such as autonomy in digital workplaces (Tausch & Peifer, 2019). Only a few studies include laboratory studies, primarily in Engineering Psychology (Müller et al., 2018; Stern et al., 2022) and medical examinations (Arvidsson et al., 2008). The in-depth analysis reveals that HRM research not only validates resource constructs with existing resource diagnostic instruments in the digital work context through deductive research but also identifies further supporting factors that function as employee resources. Therefore, the need for inductive studies, which typically do not use standardized measurement instruments, might explain resource diagnostic instruments' underutilization (Döring et al., 2016; Hussy et al., 2010).

The selected studies mainly focus on research into environmental resources. Interestingly, the number of multiperspective studies increases from 17 to 32 percent at the study level, as some studies combine instruments to assess personal and environmental resources. This rise and the frequent use of multidimensional instruments emphasize the growing need for multidimensional resource diagnostics in HRM research.

A deeper examination of the included studies reveals an increasing interest among HRM researchers in health-promoting factors such as *resilience, recovery experience*, and *meaningfulness* (Förster & Duchek, 2017; Hardering & Biesel, 2023; Haun et al., 2022; Merchel et al., 2022). Additionally, there is a growing focus on learning-enhancing factors like *qualification* and *transformational ability* (Kauffeld, 2021; Merchel et al., 2022; Müller-Giegler

& Spychiger, 2022; Schulte et al., 2021) to better understand the function of personal resources in the digital work context. In terms of environmental resources, HRM researchers discuss *social support* (Bentler et al., 2023; Sigmund & Härtwig, 2022) and *empowering leadership* (Canfal et al., 2021; Franke et al., 2014; Rowold, 2014; Schermuly, 2017, 2020). Additionally, HRM scholars study comprehensive *technical support* (Bates et al., 2012; Dehnbostel, 2018; Tausch & Peifer, 2019) and the *ergonomics* of the workplace and digital technologies as resources to foster employee wellbeing (Arvidsson et al., 2008; Eichberger et al., 2021; Gombert et al., 2016; Haun et al., 2022; Kermavnar et al., 2021; Kortsch & Kauffeld, 2016; Muhs et al., 2018; Stegmann et al., 2010; Thörel et al., 2021; Winkelhaus & Grosse, 2019).

The digital technologies addressed in the identified studies are *digital assistance systems* (Bentler et al., 2023; Haase et al., 2017; Kaiser et al., 2021; Link & Hamann, 2019; Müller et al., 2018; Rupp et al., 2020; Stern et al., 2022; Wittenbröker & Bracht, 2018) and *Information and Communication Technologies (ICT)* (Laue & Müller, 2009, 2010; Reinke & Ohly, 2021; Schwind & Yetim, 2022) to discuss how they become supportive environmental resources. Some studies answer it with *human-centered work design* and *learning support* (Bentler et al., 2023; Haase et al., 2017; Laue & Müller, 2010; Link & Hamann, 2019).

Furthermore, our in-depth analysis reveals that HRM researchers study the effects on employees' wellbeing on new forms of digitized working, such as *teleworking* (Bruch & Fürstenberg, 2023; Günther et al., 2022; Hardering & Biesel, 2023; Kossen & Berg, 2022; Kraus & Rieder, 2019; Scherzinger et al., 2023; Sigmund & Härtwig, 2022) and *agility* (Ridder & Heyner, 2011; Rietze & Zacher, 2023). Additionally, HRM researchers discuss the impact of *job crafting* (Müller-Giegler & Spychiger, 2022) and *digital learning* (Bates et al., 2012; Dehnbostel, 2018; Kortsch & Kauffeld, 2016; Melzer & Bullinger, 2017; Richter et al., 2018) which function as a resource in professional upheaval.

Discussion

Our study explored resource diagnostic approaches in HRM literature, focusing on how HRM researchers apply these instruments in the digital work context. Resource diagnostics initially appeared fragmented in the exploratory analysis due to HRM's interdisciplinary nature (Dehnbostel, 2018). We identified ten research strands that primarily study personal or environmental resources but are becoming more integrated. Importantly, our findings align with the JD-R model, a robust theoretical HRM framework (Demerouti & Nachreiner, 2019; Schaufeli & Taris, 2014), emphasizing that variation of resources is crucial for understanding employee wellbeing during digital change (Reif et al., 2021b).

The selected papers from our systematic literature review using the PRISMA method (Willems, 2020) illustrate the diverse spectrum of employee resources. In the digital work context, HRM researchers focus on a few personal resource constructs, especially resilience (Bruch & Fürstenberg, 2023; Förster & Duchek, 2017; Schulte et al., 2021). In contrast, HRM research studies a wide range of environmental resources, including technical support (Bentler et al., 2023; Sigmund & Härtwig, 2022) and the ergonomics of technical equipment and assistance systems (Laue & Müller, 2009, 2010; Reinke & Ohly, 2021; Schwind & Yetim, 2022).

Our research identified 529 resource diagnostic instruments, but only 37 remained in our final database. Although various factors led to many exclusions, our results show that resource diagnostics are still linked to high-stress environments and health-related occupations, such as soldiers and nurses. Accordingly, resource diagnostics are still predominantly used in fields like psychotherapy, social work, and occupational health management, where managing stress and promoting health are primary concerns (Reif et al., 2021a; Schubert & Knecht, 2020). The small

proportion of studies focusing on personal resources (6 percent) and the absence of selected studies published in health psychology journals underscore this result.

Our research results emphasize a significant underutilization of resource diagnostic instruments in HRM research. Despite the increasing interest since the COVID-19 pandemic, only 23 percent of the 199 systematically selected peer-review papers from the WISO database refer to professional target groups in the digital work context. This result is surprising because it is undisputed that digitalization has a significant impact on employee wellbeing (Komorowski & Vieten, 2022; Korac-Kakabadse et al., 2017; Schmid & Dowling, 2022; Tarafdar et al., 2015).

In light of these findings, our study highlights the growing need for multidimensional resource-orientated research and insists on a significant research gap in HRM. Notably, 68 percent of the selected studies concentrate on environmental or personal resources. Social scientists view this focus as critical because *resource use* involves the individual's actions in specific environments (Buttner et al., 2018; Schubert & Knecht, 2020). In our context, this assumption means that employees are more inclined to use digital technology (environmental resource) if they perceive their professional change as meaningful (personal resource). As explained in the theoretical background, it is not the objective presence of the resource that matters but rather the individual's positively valued perception of its use (Buttner et al., 2018; Hlubucek, 2016; Hobfoll, 2002; Lazarus, 1966). Simultaneously, personal resources are only valuable in a particular environment. For instance, even if employees perceive their professional change as manageable (personal resource), they will need a supportive manager (environmental resource). Due to the relational aspect of personal and environmental resources, multidimensional resource diagnostics is vital (Buttner et al., 2018).

Our in-depth analysis of the frequency of use of instruments in the included studies shows that HRM researchers increasingly prefer multidimensional resource diagnostic instruments over unidimensional ones, valuing comprehensive measurements of personal and environmental resources. In the JD-R literature, we see the emergence of multidimensional instruments like the *Energy Compass (EC)* (Schaufeli, 2017) and the *Resources and Demands (ReA)* (Schulte et al., 2021). However, they are limited in public availability and lack practicality, as they also assess stressors (Schaufeli, 2017; Schulte et al., 2021). This underscores the urgency of our research and the need for new open-source instruments focused on resource diagnostics.

Simultaneously, our study shows a need to investigate novel employee resources because digital technology creates new circumstances that require further exploration, leading to a high prevalence of inductive research (Döring et al., 2016; Hussy et al., 2010). The current JD-R discourse is increasingly focusing on technology-related employee resources, such as digital resilience and increased autonomy through digital technologies (Demerouti, 2022; Härtwig & Sapronova, 2021; Juyumaya & Torres, 2023; Latniak & Schäfer, 2021; Liu et al., 2023; Mäkiniemi et al., 2020; Massa et al., 2023; Mazzetti et al., 2023; Merchel et al., 2022; Reif et al., 2021a; Ruiner et al., 2023; Scholze & Hecker, 2023).

In summary, our paper provides valuable insights into the theoretical understanding of resource diagnostics in HRM literature by taking a holistic approach to examining different research traditions. Our study highlights the importance of a multidimensional resource perspective to identify the variation in employee resources. Although not all identified resource diagnostic instruments are available, our list provides a foundation for further HRM research. Our results contribute significantly to the resource diagnostic toolkit of the JD-R literature (Demerouti & Nachreiner, 2019; Ruch et al., 2022), supporting scholars in integrating and harmonizing resource foci. Future studies should focus on developing and validating new open-source instruments tailored to digital environments, ensuring that HRM practitioners have economical tools to support employees' professional upheaval triggered by digital technology.

Conclusions

Our paper supports the assumption that resource diagnostics will be more relevant in future HRM because employees are more than human resources; they also draw on resources to perform (Collard & Schnitzler, 2021; Müller-Christ, 2020; Reif et al., 2021b).

Although our review paper shows that resource diagnostic instruments are not widely used in HRM research, we believe that they can potentially lead to a paradigm shift in HRM, especially in supporting employees during professional upheaval in the digital era. Our study aims to encourage HRM researchers to use the identified instruments and further develop them into multidimensional tools, as resource diagnostics will significantly enhance employee wellbeing (Reif et al., 2021b) across various professional settings, particularly in the face of rapid changes due to digital technology.

Therefore, our study highlights a significant gap in HRM research in applying resource diagnostic instruments in the digital work context and promotes research transfer so that future HRM will capture the entire spectrum of employee resources. Due to the relational aspect of personal and environmental resources, it is less about quantity and more about the variation of resources to accomplish challenging developmental tasks (Buttner et al., 2018; Klemenz, 2003).

However, our proposal to develop multidimensional resource diagnostic instruments is not a solitary endeavor but a collaborative one that requires increasing interdisciplinary discourse and open research. Our review article provides an overview of resource diagnostics in HRM, inviting all interested scholars to join us in this vital work. In future research, we will develop a conceptual model for employee resources in digital transformation to combine the operationalized resource constructs into a taxonomy. We will further investigate resource variation to groundwork for developing a multidimensional resource diagnostic instrument.

Significance of the study

This review paper is significant for several reasons. First, the exploratory test research results highlight resource diagnostics' rich variety and intricate complexity. Our study emphasizes the need for convergence and permeability of research traditions. Rather than restricting resource diagnostic instruments, we advocate for *open research* in the "age of knowledge explosion" (Zukunftsinstitut, 2022). We propose developing a resource taxonomy to provide an overview of employee resource constructs for instrument development.

Second, this paper presents the current HRM research using resource diagnostics in the context of digital work. We systematically analyzed the WISO literature database using the PRISMA approach (Willems, 2020). Our study results underscore the significant underutilization of resource diagnostic instruments in HRM literature, highlighting the urgent need for more comprehensive and multidimensional resource-orientated research in the digital work context, as the variation of employee resources is essential for mastering digital transformation (Buttner et al., 2018; Klemenz, 2003; Reif et al., 2021b). Therefore, our overview of resource diagnostic instruments acts as a toolkit, inspiring various research groups with a source of new ideas.

Limitations of the study

We acknowledge certain limitations of our study. Comparing resource diagnostic instruments from different research traditions using various research designs is a bold endeavor. However, our holistic approach provides a paper with a valuable list of resource diagnostic instruments for HRM research, which is particularly useful for validating resource constructs and developing new multidimensional instruments. For conceptualization, it might still be valuable

to review instruments that measure output factors such as motivation, health, or learning success, which we excluded in our study.

Additionally, our focus on the systematic literature review with the PRISMA approach based on Willems (2020) of the WISO database means that other relevant studies in the digital work context may exist. The defined search, inclusion, and exclusion criteria also represent a limitation. Despite this, we identified and categorized 47 peer-reviewed studies that applied resource diagnostic instruments in a digital work context. The identified selection shows that multidimensionality is gaining importance in resource-orientated questions in HRM research.

Declaration of Interest

We used the English translation tools (e.g. Deepl), Grammerly writing assistant, Microsoft CoPilot, and Turnitin's plagiarism checker to produce a high-quality English research paper.

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References

Alvaro, C., Lyons, R. F., Warner, G., Hobfoll, S. E., Martens, P. J., Labonté, R., & Brown, R. E. (2010). Conservation of resources theory and research use in health systems. *Implementation Science : IS*, *5*, 79. https://doi.org/10.1186/1748-5908-5-79 Antonovsky, A. (1979). *Health, Stress and Coping*. Jossey-Bass Publishers.

Arvidsson, I., Axmon, A., & Skerfving, S. (2008). Follow-up study of musculoskeletal disorders 20 months after the introduction of a mouse-based computer system. *Scandinavian Journal of Work, Environment & Health*, *34*(5), 374–380. https://doi.org/10.5271/sjweh.1277

Avey, J. B., Luthans, F., & Jensen, S. M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human Resource Management*, *48*(5), 677–693. https://doi.org/10.1002/hrm.20294

Bakker, A. B. (2011). An Evidence-Based Model of Work Engagement. *Current Directions in Psychological Science*, *20*(4), 265–269. https://doi.org/10.1177/0963721411414534

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: state of the art. *Journal of Managerial Psychology*, *22*(3), 309–328. https://doi.org/10.1108/02683940710733115

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, *13*(3), 209–223. https://doi.org/10.1108/13620430810870476

Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, *22*(3), 273–285. https://doi.org/10.1037/ocp0000056

Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. (2023). Job Demands–Resources Theory: Ten Years Later. *Annual Review of Organizational Psychology and Organizational Behavior*, *10*(1), 25–53. https://doi.org/10.1146/annurev-orgpsych-120920-053933

Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, *99*(2), 274–284. https://doi.org/10.1037/0022-0663.99.2.274

Bandura, A. (1977). Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*, *84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bates, R., Holton III., E. F., & Hatala, J. P. (2012). A revised learning transfer system inventory: factorial replication and validation. *Human Resource Development International*(15), Article 5, 549–569. https://doi.org/10.1080/13678868.2012.726872

Becker, P. R. (2012). *Work-life Balance: Einflussfaktoren, Auswirkungen, Handlungsempfehlungen: Ein ressourcenbasierter Ansatz am Beispiel einer empirischen Untersuchung in der Industrie*. Dissertation. Fakultät für Verhaltens- und Empirische Kulturwissenschaften. https://doi.org/10.11588/heidok.00014968

Beesdo-Baum. (2011). Ressourcenaktivierung. In H.-U. Wittchen & J. Hoyer (Eds.), *Klinische Psychologie & Psychotherapie* (pp. 491–502). Springer. https://doi.org/10.1007/978-3-642-13018-2_21

Bentler, D., Gabriel, S., Latos, B. A., & Maier, G. W. (2023). Prozessmodell personalorientierter Entscheidungsgestaltung einer künstlichen Intelligenz. *PERSONALquarterly*, *75*(2), 18–23.

Brähler, E., Holling, H., Leutner, D., & Petermann, F. (2002). *Brickenkamp Handbuch psychologischer und pädagogischer Tests* (3rd ed.). Hogrefe.

Braun, M., Fröschle, N., Braun, S., Eberhardt, A. K., Pohl, V., Fronemann, N., Janssen, D., Blank, D., Wimmer, J., & Peissner, M. (2023). *Einfluss der künstlichen Intelligenz auf Arbeitstätigkeiten und Berufsbilder: Kurzstudie für das Handelsblatt*.

Bruch, H., & Fürstenberg, N. (2023). Homeoffice und gesunde Hochleistung: Emotionsorientierte Führung als Schlüsselfaktor. *Zeitschrift Führung Und Organisation*, *23*(1), 22–27.

Buttner, P., Gahleitner, S. B., Hochuli-Freund, U., & Röh, D. (Eds.). (2018). *Hand- und Arbeitsbücher: H24. Perspektiven und Konzepte für die Soziale Arbeit*. Deutscher Verein für öffentliche und private Fürsorge e.V; Lambertus-Verlag.

Canfal, D., Zweingmann, I., & Wolf, S. (2021). Neue Arbeitsgestaltung in agilen Arbeitsumgebungen: Die Auswirkungen von Arbeitsressourcen auf den Zusammenhang zwischen Arbeitsanforderungen und Beanspruchung in einer Stichprobe von Softwareentwicklerinnen und -entwicklern. *Politische Psychologie*, *9*(2), 22–51.

Cernavin, O. (2018). Ansätze für eine lernförderliche Arbeitsgestaltung 4.0. *ARBEIT - Zeitschrift Für Arbeitsforschung*, *27*(4), 295–315. https://doi.org/10.1515/arbeit-20180023

Collard, J., & Schnitzler, S. (Eds.). (2021). *Rethinking HR: 32 Impulse für innovative Personalarbeit*. Haufe Group.

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, *95*(5), 834–848. https://doi.org/10.1037/a0019364

Dehnbostel, P. (2008). Lern- und kompetenzförderliche Arbeitsgestaltung. *BWP*, *2*, 5–8 (Lernen im Arbeitsprozess).

Dehnbostel, P. (2018). Lern- und kompetenzförderliche Arbeitsgestaltung in der digitalisierten Arbeitswelt. *ARBEIT - Zeitschrift Für Arbeitsforschung*, *27*(4), 269–294. https://doi.org/10.1515/arbeit-2018-0022

Dehnbostel, P. (2022). Betriebliche Kompetenzentwicklung in der digitalen Transformation: Reflexive Handlungsfähigkeit und digitale Kompetenzen stärken. In P. Assinger (Ed.), *Betriebliche Bildung in der Holzwirtschaft: Digitalisierung und Kompetenzvalidierung* (pp. 57–68). wbv.

Demary, V., & Mertens, A. (2023). Zwischen Chance und Herausforderung: KI in Unternehmen. In Leibniz-Institut für Wirtschaftsforschung (Ed.), *Künstliche Intelligenz: Chance oder Gefahr? Wie verändert der Einsatz von KI unsere Gesellschaft? ifo SCHNELLDIENST* (76. Jahrgang, pp. 9–12).

Demerouti, E. (2022). Turn Digitalization and Automation to a Job Resource. *Applied Psychology*, *71*(4), 1205–1209. https://doi.org/10.1111/apps.12270

Demerouti, E., & Bakker, A. B. (2011). The Job Demands–Resources model: Challenges for future research. *SA Journal of Industrial Psychology*, *37*(2). https://doi.org/10.4102/sajip.v37i2.974

Demerouti, E., & Bakker, A. B. (2023). Job demands-resources theory in times of crises: New propositions. *Organizational Psychology Review*, *13*(3), 209–236. https://doi.org/10.1177/20413866221135022

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demandsresources model of burnout. *Journal of Applied Psychology*, *86*(3), 499–512. https://doi.org/10.1037/0021-9010.86.3.499

Demerouti, E., Bakker, A. B., & Xanthopoulou, D. (2019). Job Demands-Resources theory and the role of individual cognitive and behavioral strategies. In T. Taris, M. Peeters, H. de Witte, & M. Hovden (Eds.), *The fun and frustration of modern working life: Contributions from an occupational health psychology perspective: Festschrift for prof. dr. Wilmar Schaufeli* (pp. 94–104). Pelckmans Pro.

Demerouti, E., & Nachreiner, F. (2019). Zum Arbeitsanforderungen-Arbeitsressourcen-Modell von Burnout und Arbeitsengagement – Stand der Forschung. *Zeitschrift Für Arbeitswissenschaft*, *73*(2), 119–130. https://doi.org/10.1007/s41449-018-0100-4

Dengler, K., & Matthes, B. (2021). *Auch komplexere Tätigkeiten könnten zunehmend automatisiert werden: IAB-KURZBERICHT: Aktuelle Analysen aus dem Institut für Arbeitsmarkt- und Berufsforschung*. https://doku.iab.de/kurzber/2021/kb2021-13.pdf

Döring, N., Bortz, J., Pöschl, S., Werner, C. S., Schermelleh-Engel, K., Gerhard, C., & Gäde, J. C. (2016). *Forschungsmethoden und Evaluation in den Sozial- und Humanwissenschaften* (5th ed.). *Springer-Lehrbuch*. Springer Berlin Heidelberg.

Eichberger, C., Derks, D., & Zacher, H. (2021). Technology-assisted supplemental work, psychological detachment, and employee well-being: A daily diary study. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *35*(2), 199–223. https://doi.org/10.1177/2397002220968188

Ernst, G., Franke, A., & Franzkowiak, P. (2022). *Stress und Stressbewältigung*. https://doi.org/10.17623/BZGA:Q4-i118-2.0

European Commission (Ed.). (2000). *A Memorandum of Lifelong Learning*. https://arhiv.acs.si/dokumenti/Memorandum_on_Lifelong_Learning.pdf

European Commission (Ed.). (2008). *The use of ICT to support innovation and lifelong learning for all - A report on progress: Commission Staff Working Document*. https://www.europarl.europa.eu/registre/docs_autres_institutions/commission_europee nne/sec/2008/2629/COM_SEC(2008)2629_EN.pdf

Evers, A. T., van der Heijden, B. I. J. M., Kreijns, K., & Vermeulen, M. (2015). Job

Demands, Job Resources, and Flexible Competence: The Mediating Role of Teachers' Professional Development at Work. *Journal of Career Development*, *43*(3), 227–243. https://doi.org/10.1177/089484531559747

Felfe, J. (2015). *Trends der psychologischen Führungsforschung*. Hogrefe.

Fischer, C., Siegel, J., Proeller, I., & Drathschmidt, N. (2023). Resilience through digitalisation: How individual and organisational resources affect public employees working from home during the COVID-19 pandemic. *Public Management Review*, *25*(4), 808–835. https://www.tandfonline.com/doi/full/10.1080/14719037.2022.2037014

Förster, C., & Duchek, S. (2017). What makes leaders resilient? An exploratory interview study. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *31*(4), 281-06. https://doi.org/10.1177/2397002217709400

Franke, F., Felfe, J., & Pundt, A. (2014). The Impact of Health-Oriented Leadership on Follower Health: Development and Test of a New Instrument Measuring HealthPromoting Leadership. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *28*(1-2), 139–161. https://doi.org/10.1177/239700221402800108

Frey, D., Rosenstiel, L. von, Birbaumer, N., Kuhl, J., Schneider, W., & Schwarzer, R. (2007). *Enzyklopädie der Psychologie: Wirtschaftpsychologie* (Wirtschaftspsychologie). Hogrefe.

GBI-Genios (Ed.). (2024). *WISO. Einfach mehr Wissen!* https://www.wisonet.de/login?targetUrl=%2Fdosearch

Gist, M. E. (1987). Self-Efficacy: Implications for Organizational Behavior and Human Resource Management. *The Academy of Management Review*, *12*(3), 472–485. https://doi.org/10.2307/258514

Gombert, L., Rivkin, W., Kleinsorge, T., & Schmidt, K.‐H. (2016). Selbstkontrollanforderungen bei der Arbeit: Kann Abschalten am Abend schützen? *PERSONALquarterly*, *68*(3), 20–24.

Gong, C., & Ribiere, V. (2021). Developing a unified definition of digital transformation. *Technovation*, *102*, 102217. https://doi.org/10.1016/j.technovation.2020.102217

Graf, N., Gramß, D., & Edelkraut, F. (2019). *Agiles Lernen: Neue Rollen, Kompetenzen und Methoden im Unternehmenskontext*. Haufe Lexware. https://doi.org/10.34157/9783648095348

Gramß, D., Pillath, P., & Holland-Cunz, A. (2020). Lernen im digitalen Wandel – Ängste abbauen und digitale Kompetenzen von Beschäftigten fördern. In M. Harwardt, P. F.J. Niermann, A. M. Schmutte, & A. Steuernagel (Eds.), *Führen und Managen in der digitalen Transformation* (pp. 183–199). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-28670-5_11

Gruman, J. A., & Budworth, M.‐H. (2022). Positive psychology and human resource management: Building an HR architecture to support human flourishing. *Human Resource Management Review*, *32*(3), 100911. https://doi.org/10.1016/j.hrmr.2022.100911

Günther, N., Hauff, S., & Gubernator, P. (2022). The joint role of HRM and leadership for teleworker well-being: An analysis during the COVID-19 pandemic. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *1*(3), 353–379. https://doi.org/10.1177/239700222210836

Haase, T., Termath, W., Keller, A., & Berndt, D. (2017). Lernförderliche Gestaltung von Assistenzsystemen Ein Ansatz für die Instandhaltung am Beispiel der Prozessindustrie. *Industrie Management*, *3*, 16–20.

Hackman, J., & Oldham, G. R. (1976). Motivation through the design of work: test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250–279. https://doi.org/10.1016/0030-5073(76)90016-7

Hang, Y., Hussain, G., Amin, A., & Abdullah, M. I. (2021). The Moderating Effects of Technostress Inhibitors on Techno-Stressors and Employee's Well-Being. *Frontiers in Psychology*, *12*, 821446. https://doi.org/10.3389/fpsyg.2021.821446

Hardering, F., & Biesel, M. (2023). Sinn finden im Homeoffice: Barrieren und Strategien der Sinnfindung. *PERSONALquarterly*, *75*(1), 10–15.

Härter, R., Poncet, R., Tombez, C., & Zesiger, N. (2015). *Ressourcenaktivierung in der beraterisch-therapeutischen Arbeit mit Kindern und Jugendlichen.* Erziehungsberatung des Kantons Bern.

Härtwig, C., & Sapronova, A. (2021). Keine Angst vor der Digitalisierung! Zum Stand digitalisierter Arbeitsanforderungen in verschiedenen Industriebranchen und Tätigkeitsfeldern sowie Zusammenhänge zwischen Belastung, Ressourcen und Beanspruchungsfolgen in Deutschland. *Zeitschrift Für Arbeitswissenschaft*, *75*(1), 58– 73. https://doi.org/10.1007/s41449-020-00205-y

Haun, V. C., Remmel, Chiara, & Haun, S. (2022). Boundary management and recovery when working from home: The moderating roles of segmentation preference and availability demands. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *36*(3), 270–299. https://doi.org/10.1177/23970022221079048

Heerwagen, S., Hernández Vera, M., Krug-Gottwald, D., Lübbers, S., Rohmann, N., & Westerhoff, T. (Eds.). (2023). *Digitale Transformation wirksam gestalten*. Springer

Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-40280-8

Hlubucek, L. (2016). *Kritische Lebensereignisse als Potenzial für biographische Lernprozesse* [Dissertation]. Justus-Maximilians-Universität Würzburg, Würzburg. https://opus.bibliothek.uni-wuerzburg.de/opus4-wuerzburg/frontdoor/deliver/index/docId/13496/file/Dissertation_Lena_Hlubucek_Kri tische_Lebensereignisse.pdf

Hobfoll, S. E. (1998). *Stress, culture, and community: The psychology and philosophy of stress*. *The Plenum series on stress and coping*. Plenum Press. https://doi.org/10.1007/978-1-4899-0115-6

Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, *6*(4), 307–324. https://doi.org/10.1037/1089-2680.6.4.307

Hobfoll, S. E., Halbesleben, J., Neveu, J.‐P., & Westman, M. (2018). Conservation of Resources in the Organizational Context: The Reality of Resources and Their Consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, *5*(1), 103–128. https://doi.org/10.1146/annurev-orgpsych-032117-104640

Hogrefe Verlag (Ed.). (2023). *Alle Tests im Überblick*. https://www.hogrefe.com/de/shop/tests.html

Hussy, W., Schreier, M., & Echterhoff, G. (2010). *Forschungsmethoden in Psychologie und Sozialwissenschaften - für Bachelor*. *Springer-Lehrbuch*. Springer Berlin Heidelberg. http://nbn-resolving.org/urn:nbn:de:bsz:31-epflicht-1557923 https://doi.org/10.1007/978-3-540-95936-6

Ismail, M. H., Khatar, M., & Zaki, M. (2017). *Digital Business Transformation and Strategy: What Do We Know So Far? Working Paper.* Cambridge Service Alliance, Cambridge. https://cambridgeservicealliance.eng.cam.ac.uk/system/files/documents/2017NovPape r_Mariam.pdf

Jele, H. (2003). *Wissenschaftliches Arbeiten in Bibliotheken: Einführung für Studierende*. Oldenbourg Wissenschaftsverlag. https://doi.org/10.1515/9783486813500 Juyumaya, J., & Torres, J. P. (2023). A managers' work engagement framework for the digital tasks. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1009459

Kaiser, S., Kozica, A., Böhringer, F., & Wissinger, J. (Eds.). (2021). *Digitale Arbeitswelt: Wie Unternehmen erfolgreich die digitale Transformation gestalten können*. Springer. https://doi.org/10.1007/978-3-658-33224-2

Kauffeld, S. (2019). *Arbeits-, Organisations- und Personalpsychologie für Bachelor: Lehrbuch Psychologie*. Springer.

Kauffeld, S. (2021). Das Kompetenz-Reflexions-Inventar (KRI) – Konstruktion und erste psychometrische Überprüfung eines Messinstrumentes. *Gruppe. Interaktion. Organisation. Zeitschrift Für Angewandte Organisationspsychologie (GIO)*, *52*(1), 289–310. https://doi.org/10.1007/s11612-021-00580-y

Kauffeld, S., & Rothenbusch, S. (2023). Kompetenzen in der digitalisierten Arbeitswelt – eine Vision für die Personalentwicklung. In S. Kauffeld & S. Rothenbusch (Eds.), *Kompetenzmanagement in Organisationen. Kompetenzen von Mitarbeitenden in der digitalisierten Arbeitswelt* (pp. 1–14). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-66992-1_1

Kermavnar, T., Vries, A. W. de, Looze, M. P. de, & O'Sullivan, L. W. (2021). Effects of industrial back-support exoskeletons on body loading and user experience: an updated systematic review. *Ergonomics*, *64*(6), 685–711. https://doi.org/10.1080/00140139.2020.1870162

Kitchenham, B., & Charters, S. (2007). Guidelines for performing Systematic Literature Reviews in Software Engineering, *2*.

Klemenz, B. (2003). *Ressourcenorientierte Diagnostik und Intervention bei Kindern und Jugendlichen*. DGVT-Verlag.

Klesel, M., Narjes, N., & Niehaves, B. (2018, March 6). *Conceptualizing IT Resilience: An Explorative Approach*. Multikonferenz Wirtschaftsinformatik, Lüneburg.

Kluge, A. (2021). *Arbeits- und Organisationspsychologie*. W. Kohlhammer GmbH.

Knappertsbusch, I., & Wisskirchen, G. (Eds.). (2023). *Die Zukunft der Arbeit*. Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-42232-5

Kobasa, S. C. (1979). Stressful life events, personality, and health: an inquiry into hardiness. *Personality and Social Psychology*, *37*(1), 1–11. https://doi.org/10.1037/00223514.37.1.1

Koch, S. (2005). Berufliches Selbstkonzept und eigenverantwortliche Leistung. *Gruppendynamik Und Organisationsberatung*, *36*(2), 157–174. https://doi.org/10.1007/s11612-005-0121-2

Komorowski, T., & Vieten, D. (2022). *Technostress, Persönlichkeit und die Folgen von Technostress: Ein systematisches Literaturreview zur empirischen Forschungslage.* Bundesinstitut für Berufsbildung.

Konradt, U., & Zimolong, B. (2006). *Ingenieurspsychologie: Wirtschafts-, Organisations- und Arbeitspsychologie*. Enzyklopädie der Psychologie. Hogrefe. https://doi.org/10.1026/0932-4089.52.3.161

Korac-Kakabadse, N., Kouzmin, A., & Korac-Kakabadse, A. (Eds.). (2017). *Technostress: The Need for HRM Reinvention for the Digital Age*. The Changing Patterns of Human Resource Management. https://doi.org/10.4324/9781315189093-5

Kortsch, T., & Kauffeld, S. (2016a). Short Break: YouTube oder Entspannungsübung in der Mikro-Arbeitspause: Mögliches Erholungspotential und Einfluss auf die kognitive Leistung. *Wirtschaftspsychologie*, *18*(1), 32–45.

Kortsch, T., & Kauffeld, S. (2016b). Smartphones bei der Arbeit? Neue Möglichkeiten der Unterstützung des Wissensaustauschs und des Lernens. *Wirtschaftspsychologie*, *1*, 22– 31.

Kossen, C., & Berg, A. M. von der (2022). When the exception becomes the norm: A quantitative analysis of the dark side of work from home. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *36*(3), 213–237. https://doi.org/10.1177/23970022221083695

Krafft, A. M., & Walker, A. M. (2018). *Positive Psychologie der Hoffnung: Grundlagen aus Psychologie, Philosophie, Theologie und Ergebnisse aktueller Forschung*. Springer. https://doi.org/10.1007/978-3-662-56201-7

Kraus, S., & Rieder, K. (2019). Mobilitätsbezogene Arbeitsbedingungen und interessierte Selbstgefährdung: Bedeutung für die psychische Gesundheit. *Wirtschaftspsychologie*, *21*(1-2), 6–16.

Latniak, E., & Schäfer, J. (2021). Belastungs- und Ressourcensituation operativer Führungskräfte bei virtueller Teamarbeit. Herausforderungen für die Gestaltung der Arbeit. In S. Mütze-Niewöhner, W. Hacker, T. Hardwig, S. Kauffeld, E. Latniak, M.

Nicklich, & U. Pietrzyk (Eds.), *Projekt- und Teamarbeit in der digitalisierten Arbeitswelt: Herausforderungen, Strategien und Empfehlungen* (1. Aufl. 2021, pp. 75–95). Springer.

Laue, M., & Müller, E. (2009). Kommunikation im Kontext der Digitalen Fabrik. Systementwicklung mit dem Mensch-Technik-Organisation (MTO)-Ansatz am Beispiel eines Workflows. *Wt Werkstattstechnik Online*, *99*(3), 99–105.

Laue, M., & Müller, E. (2010). Methodik zur humanorientierten Systementwicklung und Kommunikationsoptimierung. *Zeitschrift Für Wirtschaftlichen Fabrikbetrieb*, *105*(6), 600–605. https://doi.org/10.3139/104.110339

Lazarus, R. S. (1966). *Psychological Stress and the Coping Process*. McGraw-Hill Education.

Lazarus, R. S., & Folkmann, S. (1984). *Stress, appraisal, and coping*. Springer.

Lee, J. Y., Rocco, T. S., & Shuck, B. (2020). What Is a Resource: Toward a Taxonomy of Resources for Employee Engagement. *Human Resource Development Review*, *19*(1), 5–38. https://doi.org/10.1177/1534484319853100

Leibniz-Institut für Psychologie (Ed.). (2023). *Testverzeichnisse: Herunterladbare Listen der Testinstrumente in PSYNDEX Tests: Neuauflage Januar 2023*. https://psyndex.de/tests/testverzeichnisse/

Leibniz-Institut für Sozialwissenschaften (Ed.). (2023). *Open Access Repositorium für Messinstrumente (ZIS)*. https://zis.gesis.org/

Leibniz-Instituts für Wissensmedien (Ed.). (2023). *Historie: EU-Politik.* e-teaching.org. https://www.e-teaching.org/projekt/politik/eu_politik/historie

Lesener, T., Gusy, B., & Wolter, C. (2019). The job demands-resources model: A metaanalytic review of longitudinal studies. *Work & Stress*, *33*(1), 76–103. https://doi.org/10.1080/02678373.2018.1529065

Libert, K., Cadieux, N., & Mosconi, E. (2020). *Human-Machine Interaction and Human Resource Management Perspective for Collaborative Robotics Implementation and Adoption.* https://doi.org/10.24251/HICSS.2020.066

Link, M., & Hamann, K. (2019). Einsatz digitaler Assistenzsysteme in der Produktion. *Zeitschrift Für Wirtschaftlichen Fabrikbetrieb*, *114*(10), 683–687. https://doi.org/10.3139/104.112161

Linley, A. P., Harrington, S., & Garcea, N. (Eds.). (2010). *Oxford Handbook of Positive Psychology and Work*. Oxford University Press.

Liu, N.‐C., Wang, Y.‐C., & Lin, Y.‐T. (2023). Employees' Adaptation to Technology Uncertainty in the Digital Era: An Exploration Through the Lens of Job Demands– Resources Theory. *IEEE Transactions on Engineering Management*, 1–12. https://doi.org/10.1109/TEM.2023.3264293

Looti, M. (2023). *Full list of Psychological Scales*. https://www.researchgate.net/publication/369362210_FULL_LIST_OF_PSYCHOLOGICAL_SCALES?channel=doi&linkId=6416db6166f8522c38b9070b&showFulltext= true https://doi.org/10.13140/RG.2.2.31575.96163

Loreto, B. B. L., Azevedo, S. C. de, Da Silva, A. G., Malloy-Diniz, L. F., Ornel, F., Trés, L. M. A. M., Kessler, F. H. P., & Castro, M. N. de (2022). Well-being at work, productivity, and coping with stress during the COVID-19 pandemic. *Trends in Psychiatry and Psychotherapy*, *44*, e20210250. https://doi.org/10.47626/2237-60892021-0250

Lühr, T., Ziegler, A., Vogl, E., & Boes, A. (07/2020). *#UmbruchErleben - Wie erleben die Menschen die digitale Transformation? Abschlussbericht des qualitativen Projektes am ISF München. Im Auftrag des bidt*. Analysen und Studien. https://doi.org/10.35067/xypq-kn61

Luthans, F., Luthans, K., & Luthans, B. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, *47*, 45–50. https://doi.org/10.1016/j.bushor.2003.11.007

Mäkiniemi, J.‐P. I., Ahola, S., & Joensuu, J. (2020). A Novel Construct To Measure Employees' Technology-Related Experiences of Well-Being: Empirical Validation of the Techno-Work Engagement Scale

(TechnoWES). *Scandinavian Journal of Work and Organizational Psychology*, *5*(1), Article 4. https://doi.org/10.16993/sjwop.79

Marsh, E., Vallejos, E. P., & Spence, A. (2022). The digital workplace and its dark side: An integrative review. *Computers in Human Behavior*, *128*, 107118. https://doi.org/10.1016/j.chb.2021.107118

Massa, N., Santarpia, F. P., & Consiglio, C. (2023). Work Characteristics as Determinants of Remote Working Acceptance: Integrating UTAUT and JD-R Models. In M. Kurosu & A. Hashizume (Eds.), *Lecture Notes in Computer Science. Human-Computer Interaction* (Vol. 14011, pp. 163–180). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-35596-7_12

Matthes, W. (2023). Digitales Lernen. In I. Knappertsbusch & G. Wisskirchen (Eds.), *Die Zukunft der Arbeit* (pp. 305–312). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-42232-5_36

Mazzetti, G., Robledo, E., Vignoli, M., Topa, G., Guglielmi, D., & Schaufeli, W. B. (2023). Work Engagement: A meta-Analysis Using the Job Demands-Resources Model. *Psychological Reports*, *126*(3), 1069–1107. https://doi.org/10.1177/00332941211051988

McMackin, J., & Heffernan, M. (2021). Agile for HR: Fine in practice, but will it work in theory? *Human Resource Management Review*, *31*(4), 100791. https://doi.org/10.1016/j.hrmr.2020.100791

Melzer, A., & Bullinger, A. C. (2017). Erfolgsfaktor Skalierbarkeit: Digitales Kompetenzmanagement, das mitwächst. *HMD Praxis Der Wirtschaftsinformatik*, *54*(6), 977–992. https://doi.org/10.1365/s40702-017-0373-7

Merchel, R., Bartels, M., Pohle, C., & Zülch, J. (2022). Unterschiede im Erleben digitaler Umbrüche: Eine Clusterlösung zur Nutzertypologisierung. *Wirtschaftspsychologie*, *24*(1), 63–76.

Moors, A., Ellsworth, P. C., Scherer, K. R., & Frijda, N. H. (2013). Appraisal Theories of Emotion: State of the Art and Future Development. *Emotion Review*, *5*(2), 119–124. https://doi.org/10.1177/1754073912468165

Muhs, K. S., Karwowski, W., & Kern, D. (2018). Temporal variability in human performance: A systematic literature review. *International Journal of Industrial Ergonomics*, *64*(2), 31–50. https://doi.org/10.1016/j.ergon.2017.10.002

Müller, R., Müller-Polyzou, R., Hörauf, L., Bashir, A., Karkowski, M., Vesper, D., & Gärtner, S. (2018). Intuitive Bedienung laserbasierter Montageassistenz. *Zeitschrift Für Wirtschaftlichen Fabrikbetrieb*, *113*(6), 363–368. https://doi.org/10.3139/104.111922

Müller-Christ, G. (2020). *Nachhaltiges Management: Über den Umgang mit Ressourcenorientierung und widersprüchlichen Managementrationalitäten: Handbuch für Studium und Praxis*. Nomos Verlagsgesellschaft. https://doi.org/10.36198/9783838542218

Müller-Giegler, H., & Spychiger, M. (2022). Beyond Job Crafting: Personale Dynamische Fähigkeiten als möglichkeitsund veränderungsorientiertes Bindeglied zwischen beruflicher Identität und Arbeitszufriedenheit. *Wirtschaftspsychologie*, *24*(3), 72–98.

Nerdinger, F. W., Blickle, G., & Schaper, N. (Eds.). (2019). *Arbeits- und Organisationspsychologie*. Springer Nature.

Neuner, R. (2012). *Psychische Gesundheit bei der Arbeit: Betriebliches Gesundheitsmanagement und Gefährdungsbeurteilung psychischer Belastung*. Springer Fachmedien.

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, *27*(3), 521–535. https://doi.org/10.1016/j.hrmr.2017.01.001

Nicolai, C. (2021). *Personalmanagement* (7th ed.). UVK Verlag.

Oakley, A. (2017). Foreword. In D. Gough, S. Oliver, & J. Thomas (Eds.), *An Introduction to Systematic Reviews* (2nd, pp. 13–16). Sage.

Oberthaler, K. (2018). *Erhebungsinstrumente zur Ermittlung psychischer Belastung am Arbeitsplatz: Theoretische Grundlagen, Rahmenbedingungen und praktische Umsetzung am Beispiel standardisierter Fragebögen* [Masterarbeit]. Johannes Kepler Universität Linz, Linz. https://epub.jku.at/obvulihs/download/pdf/2934220?originalFilename=true

Pansini, M., Buonomo, I., Vincenzi, C. de, Ferrara, B., & Benevene, P. (2023). Positioning Technostress in the JD-R Model Perspective: A Systematic Literature Review. *Healthcare*, *11*(3). https://doi.org/10.3390/healthcare11030446

Paul, H., & Garg, P. (2014). Healing HRM through Positive Psychology: An Outlook. *Procedia - Social and Behavioral Sciences*, *133*, 141–150. https://doi.org/10.1016/j.sbspro.2014.04.178

Pfaffinger, K. F. (2020). *Changing Forms of Stress as an Outcome of a Digitalised Work* [Dissertatoin]. Ludwig-Maximilians-Universität München, München. https://edoc.ub.uni-muenchen.de/26285/7/Pfaffinger_Katharina.pdf

Potgieter, I. L., Ferreira, N., & Coetzee, M. (Eds.). (2019). *Theory, Research and Dynamics of Career Wellbeing: Becoming Fit for the Future* (1st ed.). Springer. https://doi.org/10.1007/978-3-030-28180-9

Reif, J. A. M., Spieß, E., & Pfaffinger, K. F. (Eds.). (2021a). *Dealing with Stress in a Modern Work Environment: Resources Matter*. Springer International Publishing. https://doi.org/10.1007/978-3-030-58498-6

Reif, J. A. M., Spieß, E., & Pfaffinger, K. F. (2021b). Resources Matter. In J. A. M. Reif, E.

Spieß, & K. F. Pfaffinger (Eds.), *Dealing with Stress in a Modern Work Environment: Resources Matter* (pp. 73–97). Springer International Publishing. https://doi.org/10.1007/978-3-030-58498-6_5

Reiner, S., Annen, S., & Murry, G. M. (2024). Developing a taxonomy for employ resources in the digital work context. *Human Systems Management (HSM)*, *Reinventing, Reimagining, and Reshaping Human Resources Management Systems*(11), 1–13. https://doi.org/10.1177/01672533241295612

Reinke, K., & Ohly, S. (2021). Double-edged effects of work-related technology use after hours on employee well-being and recovery: The role of appraisal and its determinants. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *35*(2), 224–248. https://doi.org/10.1177/2397002221995797

Revermann, C. (2004). *eLEARNING: Europäische eLearning-Aktivitäten: Programme, Projekte und Akteure* (11). https://publikationen.bibliothek.kit.edu/1000103495 https://doi.org/10.5445/IR/1000103495

Richter, G., Mühlenbrock, I., & Ribbat, M. (2018). Lernförderliche Arbeitsgestaltung in der Sachbearbeitung - eine Aufgabe für Team- und Gruppenleitungen? *ARBEIT - Zeitschrift Für Arbeitsforschung*, *27*(4), 317–343. https://doi.org/10.1515/arbeit-20180024

Ridder, H.‐G., & Heyner, M. (2011). Qualitative Personalplanung für eine ungewisse Zukunft? Entwicklung eines dynamischen Planungsverständnisses. *Industrie Management*, *27*(4), 73–76.

Rietze, S., & Zacher, H. (2023). Healthy New Work: Auswirkung agiler Arbeit auf die psychische Gesundheit. *PERSONALquarterly*, *75*(3), 32–38.

Rowold, J. (2014). Instrumental leadership: Extending the transformational-transactional leadership paradigm. *Zeitschrift Für Personalforschung*, *28*(3), 367–390. https://doi.org/10.1177/239700221402800304

Ruch, W., Bakker, A. B., Tay, L., & Gander, F. (Eds.). (2022). *Handbook of positive psychology assessment: Reihe: Psychological Assessment – Science and Practice - Band 5*. Hogrefe.

Rudolph, C. W., Katz, I. M., Lavigne, K. N., & Zacher, H. (2017). Job crafting: A metaanalysis of relationships with individual differences, job characteristics, and work outcomes. *Journal of Vocational Behavior*, *102*, 112–138. https://doi.org/10.1016/j.jvb.2017.05.008

Rüesch, P., Bartlomé, P., & Huber, C. (2007). *Evaluation von Messinstrumenten für den strategischen Bereich „psychische Gesundheit/Stress“: Erarbeitet im Auftrag von Gesundheitsförderung Schweiz*. Fachstelle Gesundheitswissenschaften Gesundheitsförderung Schweiz.

Ruiner, C., Debbing, C. E., Hagemann, V., Schaper, M., Klumpp, M., & Hesenius, M. (2023). Job demands and resources when using technologies at work – development of a digital work typology. *Employee Relations: The International Journal*, *45*(1), 190–208. https://doi.org/10.1108/ER-11-2021-0468

Rump, J., & Eilers, S. (2021). *Die Zukunft des betrieblichen Lernens: Trends, Kompetenzen, Instrumente* (1st ed.). Schäffer-Poeschel. https://doi.org/10.34156/9783791049717

Rupp, S., Müller, R., Kerker, S., Faltus, F., & Franke, J. (2020). Problemmanagement in Werker-Assistenz-Systemen. *Zeitschrift Für Wirtschaftlichen Fabrikbetrieb*, *115*(4), 225–228.

Sarges, W., & Wottawa, H. (2004). *Handbuch wirtschaftspsychologischer Testverfahren: Band I: Personalpsychologische Instrumente* (2nd ed.). Pabst Science Publishers. https://www.sarges-partner.de/artikel/Sarges%20-%20Testverfahren.pdf

Sarges, W., Wottawa, H., & Roos, C. (Eds.). (2010). *Handbuch wirtschaftspsychologischer Testverfahren: Band II: Organisationspsychologische Instrumente*. Pabst Science Publishers.

Savickas, M. L., & Savickas, S. (2017). Vocational Psychology, Overview. In *Reference Module in Neuroscience and Biobehavioral Psychology* (pp. 460–470). Elsevier. https://doi.org/10.1016/B978-0-12-809324-5.05746-1

Schaper, N. (2021). Lernförderliche Arbeitsgestaltung und selbstgesteuertes Lernen in der Arbeit: Stand der Forschung und Entwicklung. In G. Richter (Ed.), *Arbeit und Altern. Eine Bilanz nach 20 Jahren Forschung und Praxis* (pp. 355–386). Nomos Verlagsgesellschaft. https://doi.org/10.5771/9783748909378-355

Schaufeli, W. B. (2017). Applying the Job Demands-Resources model. *Organizational Dynamics*, *46*(2), 120–132. https://doi.org/10.1016/j.orgdyn.2017.04.008

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, *25*(3), 293–315. https://doi.org/10.1002/job.248

Schaufeli, W. B., & Taris, T. W. (2014). A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging Occupational, Organizational and Public Health: A Transdisciplinary Approach* (pp. 43–68). Springer. https://doi.org/10.1007/978-94007-5640-3_4

Schellinger, J., Goedermans, M., Kolb, L. P., & Sebai, Y. (2020). Digitale Transformation und Human Resource Management. In J. Schellinger, K. O. Tokarski, & I. KisslingNäf (Eds.), *Digitale Transformation und Unternehmensführung: Trends und Perspektiven für die Praxis* (pp. 183–222). Springer. https://doi.org/10.1007/978-3658-26960-9_8

Schermuly, C. (2017). Mehr als coole Büros. *OrganisationsEntwicklung*, *17*(4), 12–18.

Schermuly, C. (2020). Wann funktioniert New Work? Eine praktische und psychologische Theorie zu New Work. *PERSONALquarterly*, *83*(2), 10–15.

Scherzinger, L., Finger, N., & Kreienkamp, M. (2023). Homeoffice während der COVID-19Pandemie: Vergleich verschiedener Probandengruppen bezogen auf unterschiedliche Altersgruppen und Umfang des Homeoffice anhand ausgewählter psychosozialer Faktoren. *Wirtschaftspsychologie*, *24*(1), 17–29.

Schmauder, M., & Spanner-Ulmer, B. (2022). *Ergonomie: Grundlagen zur Interaktion von Mensch, Technik und Organisation* (2., überarbeitete Auflage). *Hanser eLibrary*. Hanser.

Schmid, Y., & Dowling, M. (2022). New work: New motivation? A comprehensive literature review on the impact of workplace technologies. *Management Review Quarterly*, *72*(1), 59–86. https://link.springer.com/article/10.1007/s11301-020-00204-7#citeas

Schnalzer, K., Karapidis, A., Dworschak, B., & Mozer, P. (2022). *Vorgehensweise zur Kompetenzbedarfsermittlung in Organisationen*. https://publicarest.fraunhofer.de/server/api/core/bitstreams/af7ff6f9-feee-4015-823b-49826af0b20e/content https://doi.org/10.24406/publica-208

Scholze, A., & Hecker, A. (2023). Digital Job Demands and Resources: Digitization in the Context of the Job Demands-Resources Model. *International Journal of Environmental Research and Public Health*, *20*(16). https://doi.org/10.3390/ijerph20166581

Scholze, A., & Hecker, A. (2024). The job demands-resources model as a theoretical lens for the bright and dark side of digitization. *Computers in Human Behavior*, *155*, 108177. https://doi.org/10.1016/j.chb.2024.108177

Schubert, F.‑C., & Knecht, A. (2020). *Resources – Features, Theories and Concepts at a Glance*. http://www.albanknecht.de/publications/Schubert-Knecht-2020-resourcetheories-at-a-glance.pdf

Schuler, H., & Sonntag, K. (Eds.). (2007). *Handbuch der Psychologie / hrsg. von Jürgen Bengel u.a: Bd.6. Handbuch der Arbeits- und Organisationspsychologie*. Handbuch der Psychologie.

Schulte, E.‐M., Wittner, B., & Kauffeld, S. (2021). Ressourcen und Anforderungen (ReA) in der Arbeitswelt: Entwicklung und erste Validierung eines Fragebogens. *Gruppe. Interaktion. Organisation. Zeitschrift Für Angewandte Organisationspsychologie*, *52*(2), 405–415. https://doi.org/10.1007/s11612-021-00565-x

Schwind, J., & Yetim, F. (2022). Akzeptanzanalyse von Microsoft Teams als eKollaborationssystem bei standortverteilten und agilen Entwicklungsteams eines mittelständischen UnternehmensAcceptance Analysis of Microsoft Teams as eCollaboration System for Distributed and Agile Development Teams of a MediumSized Company. *HMD Praxis Der Wirtschaftsinformatik*, *59*(4), 1197–1215. https://doi.org/10.1365/s40702-021-00776-2

Seidler, A. (Ed.). (2015). *Thema Jahrestagung DGAUM: Vol. 2014. Gesunde Gestaltung von Büroarbeitsplätzen: Arbeitsmedizinische Aspekte - physikalische Einflussfaktoren - Gefahrstoffexposition - Organisationsformen*. ecomed Medizin.

Seufert, S., Guggemos, J., Meier, C., & Helfritz, K. H. (2018). *Digitale Kompetenz von Personalentwicklern: Digitale Reife und Augmentationsstrategie in der Personalentwicklung.*

Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-Concept: Validation of Construct Interpretations. *Review of Educational Research*, *46*(3), 407–441. https://doi.org/10.2307/1170010

Sigmund, N.‐L., & Härtwig, C. (2022). Zusammenhänge von digitaler IKT-Nutzung, sozialer Unterstützung und emotionaler Erschöpfung in der Teleheimarbeit. *Wirtschaftspsychologie*, *24*(2), 4–13.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, *104*, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Sonnentag, S., Stephan, U., Wendsche, J., Bloom, J. de, Syrek, C., & Vahle-Hinz, T. (2021). Recovery in occupational health psychology and human resource management research: An Interview with Prof. Sabine Sonnentag and Prof. Ute Stephan. *German Journal of Human Resource Management*, *35*(2), 274–281. https://doi.org/10.1177/23970022211004599

Spieß, E., & Rosenstiel, L. von. (2010). *Organisationspsychologie: Basiswissen, Konzepte und Anwendungsfelder*. Oldenbourg Wissenschaftsverlag. https://doi.org/10.1524/9783486710274

Stegmann, S., van Dick, R., Ullrich, J., Charalambous, J., Menzel, B., Egold, N., & Wu, T. T.‐C. (2010). Der Work Design Questionnaire. *Zeitschrift Für Arbeits- Und Organisationspsychologie A&O*, *54*(1), 1–28. https://doi.org/10.1026/09424089/a000002

Stern, H., Leder, R., Lütjen, M., & Freitag, M. (2022). Unterstützung von Wartungs- und Instandhaltungsprozessen für LNG-Schiffsarmaturen - Menschzentrierte Entwicklung und Evaluation eines AR-Assistenzsystems. *Industrie Management*, *38*(2), 6–10.

Synder, C. R., & Lopez, S. J. (Eds.). (2002). *Handbook of positive psychology*. Oxford University Press.

Tarafdar, M., Pullins, E. B., & Ragu-Nathan, T. S. (2015). Technostress. Negative effect on performance and possible mitigations. *Information Systems Journal*, *25*(2), 103–132. https://doi.org/10.1111/isj.12042

Tausch, A., & Peifer, C. (2019). Auswirkungen von Autonomie auf Flow, Motivation und Leistung: Eine Studie im Schaltanlagenbau. *Wirtschaftspsychologie*, *21*(4), 83–100.

Thörel, E., Pauls, N., & Göritz, A. S. (2021). Work-related extended availability, psychological detachment, and interindividual differences: A cross-lagged panel study. *German Journal of Human Resource Management: Zeitschrift Für Personalforschung*, *35*(2), 176–198. https://doi.org/10.1177/2397002221992549

Tremblay, M. A., & Messervey, D. (2010). The Job Demands-Resources model: Further evidence for the buffering effect of personal resources. *SA Journal of Industrial Psychology*, *37*(2), 10–19. https://doi.org/10.4102/sajip.v37i2.876

Tushman, M. L., & Romanelli, E. (1985). Organizational evolution: A metamorphosis model of convergence and reorientation. *Research in Organizational Behavior*, *7*, 171–222.

Uhle, T., & Treier, M. (2015). *Betriebliches Gesundheitsmanagement: Gesundheitsförderung in der Arbeitswelt - Mitarbeiter einbinden, Prozesse gestalten, Erfolge messen* (3rd ed.). Springer-Verlag. https://doi.org/10.1007/978-3-662-46724-4

VBG. (2019). *Aktiv Ressourcen nutzen: Vom richtigen Umgang mit Stress: Orientierung, Beispiele, Empfehlungen für Unternehmen*.

https://cdn.vbg.de/media/334cd44163aa43efb1bafe7c27afad8b/dld:attachment/Aktiv_Ressourcen_nutzen_Vom_richtigen_Umgang_mit_Stress.pdf

Verina, N., & Titko, J. (2019). Digital transformation: conceptual framework. In V. Skvarciany (Ed.), *Proceedings of 6th International Scientific Conference Contemporary Issues in Business, Management and Economics Engineering '2019.* Vilnius Gediminas Technical University. https://doi.org/10.3846/cibmee.2019.073

Walsh, S. (2024). *The Impact of Disruptions in Routines on Employee Well-Being and Productivity* [Masterthesis]. University of Cincinnati.

Willems, A. S. (2020). *Leitfaden: Das systematische Review.* Empirische Bildungsforschung: Schul- und Unterrichtsforschung. https://www.uni-goettingen.de/de/document/download/86db89757b07af3aee23b6b579d262c8.pdf/Leitfaden_Systematisches%20Review_20220510.pdf

Willutzki, U. (2003). Ressourcen. Einige Bemerkungen zur Begriffsklärung. In H. Schemmel & J. Schaller (Eds.), *Ressourcen. Ein Hand- und Lesebuch zur therapeutischen Arbeit* (pp. 91–109). dvgt Verlag.

Winkelhaus, S., & Grosse, E. (2019). Logistik 4.0 - Paradigmenwandel als Chance für Menschen und Unternehmen. *Zeitschrift Für Wirtschaftlichen Fabrikbetrieb*, *114*(10), 658–661. https://doi.org/10.3139/104.112157

Wittenbröker, S., & Bracht, U. (2018). Logistikassistenzsystem im Behältermanagement. *Zeitschrift Für Wirtschaftlichen Fabrikbetrieb*, *113*(5), 316–322. https://doi.org/10.3139/104.111916

Wong, G., Greenhalgh, T., Westhorp, G., Buckingham, J., & Pawson, R. (2013). RAMESES publication standards: meta-narrative reviews. *BMC Medicine*, *11*(1), 20. https://doi.org/10.1186/1741-7015-11-20

Wrede, S. J. S., Rodil Dos Anjos, D., Kettschau, J. P., Broding, H. C., & Claassen, K. (2021). Risk factors for digital stress in German public administrations. *BMC Public Health*, *21*(1), 2204. https://doi.org/10.1186/s12889-021-12247-w

Wrzesniewski, A., & Dutton, J. (2001). Crafting a Job: Revisioning Employees as Active Crafters of Their Work. *Academy of Management Review*, *26*, 179–201. https://doi.org/10.2307/259118

Wunder, M. (Ed.). (2021). *Digitalisierung und Soziale Arbeit: Transformationen und Herausforderungen*. Verlag Julius Klinkhardt. https://doi.org/10.25656/01:23157

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, *14*(2), 121–141. https://doi.org/10.1037/1072-5245.14.2.121

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior*, *74*(3), 235–244. https://doi.org/10.1016/j.jvb.2008.11.003

Xiao, Y., & Watson, M. (2017). Guidance on Conducting a Systematic Literature Review. *Journal of Planning Education and Research*, *39*(1), 93–112. https://doi.org/10.1177/0739456X17723971

Zhang, J., & Chen, Z. (2024). Exploring Human Resource Management Digital Transformation in the Digital Age. *Journal of the Knowledge Economy*, *15*(1), 1482–1498. https://doi.org/10.1007/s13132-023-01214-y

Zukunftsinstitut. (2022, December 3). *Bildung im Zeitalter der Wissensexplosion*. https://www.zukunftsinstitut.de/zukunftsthemen/bildung-im-zeitalter-derwissensexplosion

Appendix A

Search terms (name of resource diagnostic instrument)	Abbreviation
"Zwei-Wege Kontrollüberzeugungsfragebogen"	2W-KÜZF
"Fragebogen zur Erfassung zentraler Merkmale der Arbeit 4.0"	A 4.0
"Analyse von arbeitsbedingten Belastungen und Ressourcen"	AABR
"Skala zur Erfassung von Arbeitsbedingungen und arbeitsbezogenen Wertorientierungen"	AAW
"Analytische Bewertung von Arbeitstätigkeiten"	ABAKABA
"Arbeitsbeschreibungsbogen"	ABB
"Arbeitsanalyse nach Bildschirmarbeitsverordnung der TBS Oberhausen"	ABETO
"Arbeitsbezogenes Transparenzerleben"	ABT
"Fragebögen zum arbeitsbezogenen Transparenzerleben"; "Fragebogen zum arbeitsbezogenen Transparenzerleben"	ABTE
"Rasch-Skalen zur Messung von Arbeits-und Berufszufriedenheit, Betriebsklima und Arbeits- und Berufsbelastung"	ABZ
"Agency Climate Questionnaire"	ACQ
"Applicability of Character Strengths Rating Scale"	ACS-RS
"Abbreviated Character Strengths Test"	ACTS
"Skala zur Erfassung des arbeitsplatzbezogenen Digitalisierungsgrades"; "Skala zur Erfassung des organisationalen Digitalisierungsgrades"	ADG
"Arbeitswissenschaftliches Erhebungsverfahren zur Tätigkeitsanalyse"	AET, DTV-AET
"Attributionsstilfragebogen"	AF3M
"Aufstiegsförderliche Führung - Delegation"; "Aufstiegsförderliche Führung-Delegation"; "Aufstiegsförderliche Führung Delegation"	AF-DEL
"Adult Hope Scale"	AHS
"Allgemeine Selbstwirksamkeitskurzskala"	AKSU
"Authentic Leadership Questionnaire"	ALQ
"Fragebogen für softwareentwickelnde Unternehmen zur internen Bestimmung des agilen Reifegrads"	ARG
"Fragebogen zu Handlungsstilen"	AS/D
"Arbeitsschutzmanagement" + ASCA	ASCA
"Attributionsstilfragebogen für Erwachsene"	ASF-E
"Abbreviated Self-Leadership Questionnaire"	A-SLQ
"Skala zur Erfassung der Ambiguitätstoleranz"	AT14

"Analyse von Tätigkeitsstrukturen und prospektive Arbeitsgestaltung bei Automatisierung"	ATAA
"Fragebogen zur interaktionsbezogenen Technikaffinität"; "Affinity for Technology Interaction"	ATI
"Fragebogen zur Messung wahrgenommener hedonischer und pragmatischer Qualität"	AttrakDiff
"Arbeitsbezogenes Verhaltens- und Erlebensmuster"	AVEM
"Verfahren zur Beurteilung von Arbeitsinhalten, Arbeitsorganisation, Mitarbeiterführung und sozialen Beziehungen"	BAAM
"Beurteilung von Arbeitsinhalten, Arbeitsorganisation, Mitarbeiterführung und sozialen Beziehungen"	BAAM_2
"Bochumer Arbeitshilfen für gerichtsfeste Investitionen für Maschinenanlagen und IT-Systeme"; "Bochumer Arbeitshilfen für gerichtsfeste Investitionen für Maschinen-Anlagen und IT-Systeme"; "Bochumer Arbeitshilfen für gerichtsfeste Investitionen"	BAgl
"Balance Inventar der Führung"	BALI-F
"Beteiligungsorienteirte Arbeitsplatzanalyse"	BALY
"Psychologische Bewertung von Arbeitsbedingungen Screening für Arbeitsplatzinhaber"	BASA II
"Brief Assessment of Sense of Coherence"	BASOC
"Analyse psychischer Belastungen bei Bildschirmarbeit"	BEBA
"Bestimmung des emotionalen Ressourcenpotentials"	BER
"Bildschirm-Fragebogen"	BiFra
"Business Organization Climate Index"	BOCI
"Berufs- und Organisations-Klima-Index"	BOKX
"Baruth Protective Factors Inventory"	BPFI
"Brief Resilient Coping Scale"	BRCS
"Brief Resilience Scale"	BRS
"Benchmark Resilience Tool"	BRT
"Brief Strengths Scale"	BSS
"Erfassung beruflicher Selbstwirksamkeitserwartung"; "Skala zur Erfassung generalisierter Kompetenzerwartung"	BSW
"Balanced Time Perspective"	BTP
"Career Adapt-Abilities Scale"	CAAS
"Career Attitude Scale"	CAS
"Component-Based Usability Questionnaire"	CBUQ
"Creative Climate Questionnaire"	CCQ
"Conjoint Community Resilience Assessment Measure"	CCRAM

"Career Decision-Making Self-Efficacy Scale“; "Career Decision Making Self Efficacy Scale“	CDMSES
"Connor & Davidson Resilienzskala"; "Connor Davidson Resilience Scale"; "Connor-Davidson Resilience Scale"	CD-RISC
"Computergestütztes Diagnoseverfahren zur Erfassung psychosozialer Anforderungen und Ressourcen"; "Computergestütztes Explorationsverfahren zur Erfassung psychosozialer Anforderungen und Ressourcen"	CEPAR
"Career Futures Inventory"	CFI
"Career Future Time Perspective Scale"	CFTP
"Checkliste Sicheres Verhalten"	ChSiV
"Coping Inventory for Stressful Situations"; "Coping-Inventar zum Umgang mit Stress-Situationen"	CISS
"Core Job Characteristics Inventory"	CJCI
"Conger & Kanungo Scale of Charismatic Leadership"; "Conger Kanungo Scale of Charismatic Leadership"; "Scale of Charismatic Leadership"	CKS
"Checkliste Lernkultur"	CL
"Complex Leadership Assessment"	CLA
"Skala zur Messung des Organisationsklimas"	CLIM
"Questionnaire for Charismatic Leadership in Organisations"	CLIO
"Checklist of the Learning Organisation"; "Checkliste des lernenden Unternehmens"	CLQ
"Comprehensive Meaningful Work Scale"	CMWS
"Coping" + Jerusalem + COP	COP
"Coping Orientation to Problems Experienced Inventory"	COPE; Brief-COPE
"Copenhagen Psychosocial Questionnaire"	COPSOQ; COPSOQ II
"Compound Psychological Capital Scale"; "compound PsyCap scale"	CPC-12
"Questionnaire sur les Ressources et Contraintes Professionnelles"	CRCP
"Karriere-Ressourcen Fragebogen"	CRQ
"Coping-Stil"	CS
"Core Self-Evaluation Scale"; "Kernselbsteinschätzungen"; "Kernskala für Selbstbewertungen"	CSE, CSES
"Coping Strategies Inventory"	CSI
"Coping-Strategies-Questionnaire"; "Coping Strategies Questionnaire"; "Coping Styles Questionnaire"	CSQ
"Character Strengths Rating Form"	CSRF
"Conditions of Trust Inventory"	CTI
"Checkliste zum Führungsverhalten"	CzFV

"Detailanalyse der Qualität der Arbeit"	DETEKTOR
"Dispositional Hope Scale"	DHS
"Deutsches Inventar Authentischer Führung"	DIAF
"Diagnoseinstrument für gesundheitsförderliche Arbeit"	DIGA
"Demand-Induced Strain Compensation questionnaire"	DISQ
"Digital Leadership Index"	DLI
"Dimensions of the Learning Organization Questionnaire“	DLOQ
"Scale for Digital Media Self-Efficacy"; "Scale for Digital Media Self Efficacy"	DMSE
"Danish Psychological Work Environment Questionnaire"	DPQ
"Dispositional Resilience Scale"	DRS
"Directive support scale"	DSS
"Arbeit und Gesundheit in der Industrie 4.0"	DYNAMIK 4.0
"Fragebogen zur Messung der Diskrepanz zwischen empfundenem und erstrebtem Zustand"	DZEEZ
"Erholungs-Belastungs-Fragebogen"	EBF
"Erholungs-Belastungsfragebogen für die Arbeitswelt"	EBF-Work
"Erhebungsbogen zur Erfassung des Betriebs- und Organisationsklimas"	EBK
"Einschätzungsbogen für Veränderungen"	EBV
"Erhebungsbogen zur Erfassung des Betriebsklimas"	EEB
"Erholungskompetenz-Skala"	EKS
"Skalen zu erlebens- und lernförderlichen Merkmalen der Arbeitsaufgabe"	ELMA
"Ethical Leadership Questionnaire"	ELQ
"Empowering Leadership Questionnaire"; "Empowerment Leadership Questionnaire"	ELQ_2
"Ethical Leadership Scale"	ELS-D
"Ethical Leadership at Work Questionnaire"	ELW-D
"Emotionale und Kommunikative Anforderung und Beanspruchung bei der Arbeit"	EMOCOM
"Fragebogen zu Fehlern bei der Arbeit"	EOQ
"Ego Resilience Scale"	ER
"Effort-Reward Imbalance Questionnaire"; "Fragebogen zur Messung beruflicher Gratifikationskrisen"; "Fragebogen zur Erfassung beruflicher Gratifikationskrisen"	ERI, ERI-K

"Essener-Ressourcen-Inventar"; "Essener Ressource Inventar"; "Ressourcen Inventar"	ERI_2
"Employee Recognition Survey"	ERS
"e-work self-efficacy scale"	E-SES
"Verfahren zur EU-konformen Software-ergonomischen Bewertung und Gestaltung von Bildschirmarbeit"; "Software-ergonomischen Bewertung und Gestaltung von Bildschirmarbeit"	EU-CON
"Fragebogen Eigenverantwortung"	EV-20
"Erwartungen an das Verhalten von Führungskräften"	EVF
"Evaluation of Social Systems"	EVOS
"European Workplace Assessment"	EWOPLASS
"Fragebogen zur Arbeitsanalyse"	FAA
"Fragebogen zum Arbeits- und Gesundheitsschutz"	FAGS
"Fragebogen zu Akzeptanz und Handeln"	FAH-II
"Fragebogen zur Achtsamkeit im Team"	FAiT
"Fragebogen zur Messung von Anerkennung"	FAK
"Fragebogen zur aktuellen Arbeitstätigkeit"	FAKT
"Factual Autonomy Scale"	FAS
"Financial Anxiety Scale"	FAS
"Fragebogen zur Arbeitssituation"	FAS
"Fragebogen zur Arbeitssicherheitsanalyse"	FASA
"French Version of the General Self-Efficacy Short Scale"	FASKU
"Fragebogen zur Arbeit im Team"	FAT
"Fragebogen Anerkennung und Wertschätzung"	F-AW
"Fragebogen zu Bedingungen der Arbeitsumgebung"	FBAU, FBdAu
"Fragebogen zur Beteiligung an betrieblichen Entscheidungen"	FBBE
"Fragebogen zur interaktiven Beurteilung einer Organisation"	FB-IBO
"Feedbackkulturfragebogen"	FBKF
"Fragebogen zu Determinanten Selbstgesteuerter Lernprozesse"	FB-SGLP
"Fragebogen zur direkten Partizipation im Büro"	FdP-B
"Fragebogen zur Erfassung von Bewältigungsstrategien"	FEBS

"Fragebogen zur Erfassung computerspezifischer Attributionen"	FEcA
"Fragebogen zur Erfassung computerbezogener Anreizfaktoren"	FECAF
"Fragebogen zur Erfassung gesundheitsbezogener Kontrollüberzeugungen"	FEGK
"Skalen zur Erfassung des Fehlerklimas"	FEKLI
"Fragebogen zur Erfassung des Organisationsklimas"	FEO
"Fragebogen zur Erfassung von Ressourcen und Selbstmanagementfähigkeiten"	FERUS
"Fragebogen zu Einstellungen und Selbsteinschätzungen"	FES
"Fragebogen zur Erfassung der Emotionalen Selbstwirksamkeit"	FES_2
"Fragebogen zur Erfassung des stimmlichen Selbstkonzepts"	FESS
"Fragebogen zur Erfassung der sozialen Unterstützung"	FESU
"Fragebogen zur erlebten Zusammenarbeit"	FEZ
"Fragebogen zur erlebten Zusammenarbeit in multifunktionalen Teams"	FEZT
"Fragebogen zu Führung durch Selbstführung"	FFdS
"Five Facet Mindfulness Questionnaire"	FFMQ
"Fragebogen zu Generalisierten Kontrollerwartungen"	FGK
"Fragebogen zu sozialer Unsicherheit"	FI
"Fragebogen zu Arbeitsintensität und Tätigkeitsspielraum"; "Fragebogen zur orientierenden Analyse"; "Fragebogen zum Erleben von Intensität und Tätigkeitsspielraum in der Arbeit"	FIT
"Fragebogen zur Messung von Informationsverarbeitung im Team"	FIT_2
"Fragebogen zur individuellen, Team- und organisationalen Resilienz"	FITOR
"Fragebogen zur Klima-Analyse"	FKA
"Fragebogen zur Messung von Kontrollambitionen"	F-KA
"Fragebogen zu Kompetenz- und Konttrollüberzeugung"	FKK
"Fragebogen zu Kompetenzerwartung, Kausalattribuierung und Selbstbewertende Gefühlen"	FKKSG
"Finale Kontrollüberzeugungen"	FKÜ
"Fragebogen zur Lern- und Arbeitssituation"	FLA
"Fragebogen zu lernrelevanten Arbeitsmerkmalen"	FLAM
"Fragebogen zur Lernumgebung"	FLEM
"Fragebogens zu lernrelevanten Merkmalen der Arbeitsaufgabe"; "Fragebogen zu lernrelevanten Merkmalen der Arbeitsaufgabe"	FLMA

"Fragebogen zur Messung Optimistischer und Pessimistischer Zukunftserwartungen"	FMOPZE
"Fragebogen zur Offenheit und Geschlossenheit in Organisationen"; "Fragebogen zur Offenheit/Geschlossenheit in Organisationen"	FOGO
"Future Orientation Scale"	FOQ
"The Fearless Organization Scan"	FOS
"Fragebogen zum psychologischen Kapital"	FPK
"Fragebogen zur Analyse des psychologischen Vertrags"	F-PV
"Führungsrelevante Konstrukte: Beziehungsqualität, Führungsverhalten, Kommunikationsqualität"	FRK
"Fragebogen zu resilientem Verhalten bei der Arbeit"; "Fragebogen zu resilienten Verhalten in der Arbeit"	FrVA
"Fragebogen zur Sozialen Kommunikation"	FSK_2
"Frankfurter Selbstkonzeptskalen"	FSKN
"Fragebogen zur sozialen Unterstützung"	F-SOZU
"Führungsspielraumskala"	FS-S
"Future Time Perspective Scale"	FTP
"Checkliste für mitarbeitergerechtes Führungsverhalten und soziale Unterstützung am Arbeitsplatz"	FÜSU
"Fragebogen zur Einschätzung des Führungsverhaltens"	FVA
"Fragebogen Verhalten im Umgang mit den Mitarbeitern"	F-VUM
"Fragebogen zur Vorgesetzten-Verhaltensbeschreibung"	FVVB
"Fragebogen zur Wettbewerbs- und Sicherheitsorientierung bei Nachwuchskräften"	FWSON
"Group Dimension Description Questionnaire"	GDDQ
"Group Environment Questionnaire"	GEQ-D
"Generalisierte Kompetenzerwartung"	GKE
"Gesundheitsbezogene Kontrollüberzeugungen"	GKÜ
"German Managerial Practice Survey"	GMPS
"General Mattering Scale"	GMS
"Eindimensionale Skala zur Messung von Dankbarkeit"; "Graditude Questionnaire"	GQ
"General Social Survey Quality of Worklife"	GSS
"General Training Climate Scale"	GTCS
"German Teamwork Questionnaire"	G-TWQ
"Heterarchische Aufgabenanalyse"	HAA

"Heuristic Competence Scale"	HCS
"Herth Hope Index"	HHI
"Health oriented Leadership"	HoL
"Hardy-Gill Resilience Scale"; "Hardy Gill Resilience Scale"	HRS
"Coworker Support measure"	HRS_Coworker
"Work/Non-work Interference and Enhancement measure"; "Non-work Interference and Enhancement measure"; "Work Interference and Enhancement measure"	HRS_Family
"Skala zur Erfassung des wahrgenommenen Handlungsspielraums"	HS
"Fragebogen zur Intoleranz der Ambiguität"	IA
"Self-Concept Scale"	ICT
"ICT Self-Concept Scale"	ICT-SC25
"Internale-Externale-Kontrollüberzeugung"; "Short Scale for the Assessment of Locus of Control"; "Kurzskala Interne und Externe Kontrollüberzeugungen"	IE
"Internale-Externale-Kontrollüberzeugung"	IE-4
"Interne-Externe Kontrolle"	IEC
"Interview zur Erfassung des Kontrollbewusstseins"	IEK
"Individualisierter Führungsstil"	IFS
"Inventar für Kollektive Selbstwirksamkeitserwartung"	I-KSWE
"Inventar zur Messung der Ambiguitätstoleranz"	IMA
"Impuls-Test"	IMPULS
"Individueller Coping Questionnaire"	INCOPE
"Inkongruenzfragebogen"	INK
"Fragebogen zum Innovationsklima"	INNO
"Skalen zur Erfassung Intraorganisationaler Einflussstrategien"	IOES
"Fragebogen zu Kontrollüberzeugungen"	IPC
"Fragebogen zur Erfassung Interner Versus Externer Kontrolle"	IPC/D
"Fragebogen zur Erhebung bereichsspezifischer Kontrollüberzeugungen bei Erwachsenen"	IPC-PL/E
"Interviewleitfaden zur Beschreibung sozialer Beziehungen"	I-SB
"Skala der wahrgenommenen interpersonalen Unterstützung"	ISEL-d
"Software-Ergonomie für Multimedia-Benutzungsschnittstellen"	ISO 14915

"IsoMetrics Fragebogen"	IsoMetrics
"Fragebogen zur Software-Ergonomie"; "ISONORM-Fragebogen"	ISONORM 9241
"Inventar zu Selbstkonzept und Selbstvertrauen"	ISS
"Inventory of socially supportive behaviors"	ISSB-d
"Inventar zur sozialen Unterstützung"	ISU-DYA
"Interpersonal Trust at Work scale"	ITWS
"Job Content Questionnaire"	JCQ
"Job Crafting Questionnaire"	JCQ; JCRQ
"Job Crafting Scale"	JCS
"Job Characteristics Scale"	JCS_2
"Arbeitsbeschreibungs-Index"	JDI/D
"Job Diagnostic Survey"	JDS
"Job Insecurity Scale"	JIS
"Inventar zum Job-Coping und Rückkehrintentionen"	JoCoRi
"Job Role Ambiguity Scale"	JRA
"Job Resources Questionnaire"	JRQ
"Job Self-Efficacy Scales"	JSES
"Kontrastive Aufgabenanalyse"	KABA
"Kompetenzbewusstsein - Durchsetzungsfähigkeit"	K-DF
"Scales for Assessing Perceptions of the work environment"	KEYS
"Kurz-Fragebogen zur Arbeitsanalyse"; "short questionnaire for job analysis"; "short questionnaire for job analyzis"	KFZA
"Kompetenzbewusstsein - Handlungskontrolle"	K-HK
"Fragebogen zur Erfassung von Kreativitäts- und Innovationsklima in Betrieben"	KIK-B
"Kurzfragebogen zum Führungsverhalten"	KKF
"Fragebogen zur Erhebung von Kontrollüberzeugungen zu Krankheit und Gesundheit"	KKG
"Fragebogen zur Erfassung des Klimas für Führung in Organisationen"	KLIFF
"Fragebogen Konfliktmanagement im Betrieb"	KOB
"Fragebogen zu Kompetenzen und Belastungen am Arbeitsplatz"	KoBelA

"Kommunikationsverhalten von Führungskräften"; "Kommunikationsqualität Führungskräfte und MitarbeiterInnen"; "Kommunikationsqualität Führungskräfte und Mitarbeiter"	KoFü
"Fragebogen zur Erfassung der Situation am Arbeitsplatz und in der Familie"	KOLA
"Fragebogen zur Erfassung der Kommunikation in Organisationen"	KOMMINO
"Komplementäre Analyse und Gestaltung von Produktionsaufgaben in soziotechnischen Systemen"	KOMPASS
"Fragebogen zur Karriereplanung"	KP
"Kommunikationsqualität" + Mohr	KQ
"Kompetenz-Reflexions-Inventar"	KRI
"Kontrollüberzeugungen" + KÜD; "Kontrollüberzeugungen" + Preiser	KÜD
"Kurzskala zur Erfassung der Unternehmenskultur"	KUK
"Kontrollüberzeugungen im Umgang mit Technik"	KUT
"Kompetenzbewusstsein der Zukunftsbewältigung"	K-ZB
"Landauer Selbstführungsanalyse"	LASA
"Lern- und Arbeitsverhaltensinventar"	LAVI
"Learning Climate Questionnaire"	LCQ
"Learning Experience Questionnaire"	LEQ
"Interview Leitfaden zur Exploration der Arbeitsplatzgesundheit"; "Interview-Leitfaden zur Exploration der Arbeitsplatzgesundheit"	LExAG
"Landauer Fragebogen zum Arbeitsstil"	LFA
"Lernförderlichkeitsinventar"	LFI
"Fragebogens zum Lernen in der Arbeit"	LIDA
"Life Stressors and Social Resources Inventory"	LISRES
"Checkliste zur Erfassung von Lernkulturen in Unternehmen"	LKC
"Lernkulturinventar"	LKI
"Leader-Member Exchange 7 questionnaire"; "Leader-Member Exchange questionnaire"; "Leader-Member Exchange" + questionnaire	LMX 7
"Fragebögen zur Erfassung Internaler vs. Externaler Kontrollüberzeugungen bei Erwachsenen und Kindern"; "Fragebögen zur Erfassung Internaler vs. Externaler Kontrollüberzeugungen"	LOC-C; LOC-K
"Optimismus-Skala"	LOT
"Landauer Organisations- und Teamklimainventar"	LOTI
"Life-Orientation-Test Revised"; "Revised Life Orientation Test"	LOT-R
"Less Preferred Coworker"; "Less Preferred Coworker Questionnaire"	LPC

"Leitfaden zur qualitativen Personalplanung bei technisch-organisatorischen Innovationen"	LPI
"Leitfaden für qualifizierende Arbeitsgestaltung"	LQA
"Leadership Style Assessment"	LSA
"Lerntransfer-Inventar"; "Lern-Transfer-System-Inventar"; "Learning Transfer System Inventory"	LTSI, GLTSI
"Mindful Attention Awareness Scale"	MAAS
"Modulares Arbeitsanalyse-System"	MAS
"Mehrdimensionale Skala zur Messung von Dankbarkeit"	MCGM-G
"Multidimensional Coping Inventory"	MCI
"Modular Evaluation of key Components of User Experience"	meCUE
"ME-Work Inventar"; "Messinstrument* berufliche Sinnerfüllung"	ME-Work
"Multidimensionale Health Locus of Control Scale"	MHLC
"Modulares Inventar zur Organisationsdiagnose - Fragebogen zum Arbeits- und Gesundheitsschutz"; "Modulares Inventar zur Organisationsdiagnose"	MIO_FAGS
"Mannheimer Interview zur sozialen Unterstützung"	MISU
"Meaning in Work Scale"	MIWS
"Mannheimer Organisationsdiagnose-Instrument"	MODI
"Modulares und organisationsbezogenes System zur Analyse und Gestaltung der Informationsverarbeitung und Kommunikation"	MOSAIK
"Marburger Version der Sense of Coherence Scale"	MR SOC
"Mastery Scale"	MS
"Mindful Self-Care Scale"	MSCS
"Multidimensional scales of perceived self-efficacy"	MSPSE
"Multidimensional scale of Perceived Social Support"	MSPSS
"Multidimensionale Selbstwertskala"; "Selbstwertskala"	MSWS
"Mensch-Technik-Organisation-Analyse"	MTO
"Media and Technology Usage and Attitudes Scale"	MTUAS
"Meaningfulness Work Scale"	MWS
"Need for Clarity Scale"; "Need for Clarity Questionnaire"; "Questionnaire for Role Clarity"	NCQ
"Need for Recovery Scale"	NFR
"Normative und Subjektive Arbeitsanalyse"	NUSA

"Skala zur Messung des organisationsbezogenen Selbstwertes"	OBSE
"Organizational Culture Assessment Instrument"; "Organizational Culture Assessment Inventory"	OCAI
"Organizational Climate Description Questionnaire"	OCDQ
"Organizational Career Growth Scale"	OCG
"Organisation Climate Measure"; "Organization Climate Measure"	OCM
"Organization Climate Questionnaire"	OCQ
"Qualitative Führungsstilanalyse"	OFA
"Occupational Fatigue, Exhaustion, Recovery Scale"	OFER
"Occupational Future Time Perspective Scale"	OFTP
"Occupational Hardiness Questionnaire"; "Occupational Hardiness"	OHQ
"Fragebogen zum Organisationsklima"	OK
"Organisations-Klima-Instrument"	OKI
"Fragebogen zur Erfassung des organisationalen Klimas für Lernen aus Fehlern"	OLAF
"Organisations- und Potenzial-Untersuchungs-System"	OPUS
"Occupational Self Assessment"	OSA
"Occupational Self-Efficacy Scale"	OSS, OSES
"Oslo Social Support Scale"	OSSS
"Organizational Trust Inventory"	OTI
"Overuse Underuse Optimal Use Inventory of Strengths"	OUOU
"Position Analysis Questionnaire"	PAQ
"Protean Career Attitude Scale"	PCA
"Proactive Coping Inventory"	PCI
"Psychological Capital Questionnaire"	PCQ
"Psychological Detachment Scale"	PDS
"Professional Development Short Scale"	PDSS
"Psychological Empowerment Questionnaire"	PE
"PERMA-Profiler"	PERMA
"Psychological Empowerment Scale"	PES
"Perceived Leadership Integrity Scale"	PLIS

"Principled Leadership Scale"	PLS
"Pearlin-Mastery-Scale"	PM
"Profile of Organization Characteristics"	POCh
"Perceived Organizational Support and Work Life Balance"	POS-B
"Perceived Organisational Support"	POS-s
"Psychosoziales ressourcenorientiertes Diagnostiksystem"	PREDI
"PsySafety-Check"; "PsySafety Check"; "Fragebogen zur Messung psychologischer Sicherheit im Team"	PS-C
"Participation Scale"	P-Scale
"Personal Social Capital Scale"	PSCS
"Persolog Selbstführungs-Profil"	PSFP
"Supervisory Support Scale"	PSS
"Perceived Social Support and Work-Life Balance"	PSS-B
"Social Support Friends and Family Scale"	PSS-Fr, PSS-Fa
"Perceived Social Support Scale"	PSSS
"Perceived Supervisor Support Scale"	PSSS_2
"Post Study System Usability Questionnaire"	PSSUQ
"Instrumentarium zur Beurteilung und Gestaltung gesunder Arbeit"	psy.Res
"Psychological Capital Scale"	PsyCap
"Skalen zur Erfassung perzipierter Tätigkeitsmerkmale"	PT
"Portraits Values Questionnaire und Resilience Scale"	PVQ
"Questionnaire on the Experience and Assessment of Work"; "Questionnaire on the Experience and Evaluation of Work"	QEEW, QEAQ
"Qualitative Job Insecurity Measures"	QJIM
"Quality of Relationship Inventory"	QRI
"Questionnaire for User Interface Satisfaction"	QUIS
"Quality of Worklife Questionnaire"; "Questionnaire On Quality of Work Life"; "Quality of work life survey"	QWL
"Role Conflict and Ambiguity Scale"; "Role Ambiguity Scale"; "Role Conflict Scale"	RAS
"Recovery Assessment Scale"	RAS_2
"Resilience at Work Scale"	RAW
"Ressourcen-Checkliste"	RCL

"Ressourcendiagnostik"	RD
"Redefinition der Arbeitstätigkeit"	RDFN-K
"ReA Questionnaire"; "Ressourcen und Anforderungen" + ReA; "Ressourcen und Anforderungen in der Arbeitswelt"	ReA
"Rechnergestützte psychologische Bewertung von Arbeitsinhalten"	REBA
"Ressourcen und Belastungen am Arbeitsplatz"	REBE
"Resilience & Resources Energetic Level Individual Evaluating Feedback"; "Resilience Resources Energetic Level Individual Evaluating Feedback"	RELIEF
"Recovery Experience Questionnaire"	REQ
"Fragebogen zur Erfassung gegenwärtiger Ressourcenrealisierung aus einer Selbstbeurteilungsperspektive"	RES
"Regulatory Emotional Self-Efficacy Scale"	RESE
"Bochumer Ressourcenfragebogen"	RESO-B
"Inventar zur Erhebung resilienten Verhaltens im Arbeitskontext"	REVERA
"Verfahren zur Erfassung des Tätigkeitsspezifischen Realselbstbildes, Fremdbildes sowie Idealselbstbildes"	RFI
"Ressourceninterview"; "Ressourcen-Interview"	RI
"Ressourceninventar"	RI_2
"Regensburger Inkongruenzanalyse Inventar"	RIAI
"Ressourcen- und Kompetenzstern"	RKS
"Ressourcenorientierte Diagnostik"	RODI
"Ressourcenorientierte Mikroprozess-Analyse"; "Ressourcenorientierte Mikroprozess Analyse"	ROMA
"Internale-Externale Kontrolle-Skala"	ROT-IE
"Physical Work Environment Scale"	RPWES
"Risiko-Ressourcen-Profil"	RRP
"Resilienzskala"; "resilience scale"	RS
"Resilience Scale for Adults"	RSA
"Rosenberg-Self-Esteem-Scala"; "Rosenberg Self Esteem Scala"; "Self Esteem Scala"	RSES/D
"Revised Self-Leadership Questionnaire"	RSLQ
"Skala zur Erfassung reflexionsbezogener Selbstwirksamkeit"	rSW
"Verfahren der subjektiven Arbeitsanalyse"	SAA
"Fragebogen zur Erfassung von Selbstakzeptanz und Akzeptanz an derer"; "Fragebogen zur Erfassung von Selbstakzeptanz"	SA-AA

"Skala zur arbeitsbezogenen kollektiven Wirksamkeitserwartung"	SABKWSE
"Strategic Approach to Coping Scale"	SACS
"Scale of Attitudes toward the Information Technologies and Software Course"	S-AIT
"Salutogenetische subjektive Arbeitsanalyse"	SALSA
"Salutogenese-Screening"; "Salutogenese Screening"	SALUS
"Fragebogen zum Selbstkonzept beruflicher Kompetenzen"	SBK
"Self-Care Assessment Tool"	SCAT
"Stress Coping Inventar"; "Stress- und Coping Inventar"	SCI
"Fragebogen Stress Coping"	SCOPE
"Self-Control-Schedule"	SCS/D
"Self-Control Scale"	SCS/G
"Kurzform der Self-Control Scale"	SCS-K-D
"Fragebogen zu Stärken und Schwächen"	SDQ-Deu
"Skala zur Erfassung des Bewältigungsverhaltens"	SEBV
"Self-Efficacy for Learning Form"	SELF
"Self-Efficacy in Presentation and Moderation Skills"	SEPM
"Skala zur Erfassung der Selbstakzeptierung"	SESA
"Skala zum erlebten Veränderungsdruck"	SEV
"Schutzfaktoren-Fragebogen"	SFF
"Screening Gesundes Arbeiten"	SGA
"Skalen zur Messung generalisierter Kontrollmeinungen"	SGKM
"Skala Geforderte Selbstkontrolle"; "Geforderte Selbstkontrolle am Arbeitsplatz"	SGSK
"State Hope Scale"	SHS
"Skala zur Erfassung interpersonaler Ambiguitätsintoleranz"	SIA
"Selbstsicherheits-Inventar"	SICS
"Selbst-Identitäts-Graphik"	SIG
"Screeninginstrument zur Bewertung und Gestaltung menschengerechter Arbeitstätigkeit"	SIGMA
"Selbstkonzept beruflicher Kompetenz"	SK-BK
"Selbstkonzeptfragebogen"	SKF

"Selbstkonzeptinventar"	SKI
"Selbstkonzeptklarheits-Skala"	SKK_1
"Fragebogen zur Erfassung der Selbstkonzepte eigener kommunikativer Kompetenzen"	SKK_2
"Selbstkonzept eigener sozialer Fähigkeiten"	SKS
"Strengths Knowledge Scale"	SKS
"Servant Leadership Questionnaire"	SLQ
"Servant Leadership Survey"	SLS
"Spiritual Leadership Questionnaire"; "Spirtual Leadership Theory Survey"	SLT
"Selbstmanagement-Strategiefragebogen"; "Selbstmanagement Strategiefragebogen"	SMT
"Fragebogen zum Kohärenzgefühl"; "Sense of Coherence Scale"	SOC, SOC-Q
"Revised Sense of Coherence Scale"	SOC-R
"Sozialer-Optimismus-Fragebogen"; "Sozialer Optimismus Fragebogen"	SO-FB
"Fragebogen zur Analyse der soziomoralischen Atmosphäre in Unternehmen"	SoMoA
"Sense-of-Mastery-Skala"; "Sense of Mastery Skala"	SOM-S
"Skala Optimismus-Pessimismus"; "Optimism–Pessimism Short Scale"	SOP2
"Survey of Perceived Organizational Support"	SPOS
"Survey of Perceived Supervisor Support"	SPSS
"Self-rated measure of character strengths"	SR-CS
"Self-Regulated Learning Opportunities Questionnaire"	SRL-Q
"Social Reward Questionnaire"	SRQ
"Social Support Appraisals Scale"	SS-A-d
"Skala der sozialen Beziehungen"	SSB-M
"State Self-Control Capacity Scale"	SSCCS-D
"Situationsspezifischer Copingfragebogen"	SSCF
"Fragebogen zur Erfassung von Selbstsicherheit"	SSF
"Selbststeuerungssysteminventar"	SSI
"Fragebogen zur sozialen Unterstützung"	SSQ
"Supportive Supervisory Scale"	SSS
"Signature Strengths Survey"	SSS

"Siegel Scale of Support of Innovation"	SSSI
"Selbsterlebens- und Selbstbewertungstest"	SST
"Skala zur Messung der subjektiven Unsicherheit der Arbeitsstelle"	S-SUSA
"Strengths Use and Deficit Correction"	SUDCU
"Software Usability Measurement Inventory"	SUMI
"Standardized User Experience Percentile Rank Questionnaire"	SUPR-Q
"Strengths Use Scale"	SUS
"System Usability Scale"	SUS_2
"Skalen zur Messung der Veränderungsbereitschaft und zur Messung der Stressoren und Ressourcen"	S-VB-RS
"Stressverarbeitungsfragebogen"	SVF
"General Self-Efficacy Scale"; "Skala zur allgemeinen Selbstwirksamkeitserwartung"; "Generalized Self-Efficacy scale"; "Generalisierte Selbstwirksamkeitserwartung"; "General Self-Efficacy Short Scale"	SWE, GSE, GSES
"Fragebogen zur Erfassung Computerbezogener Selbstwirksamkeitserwartungen"	SWE-C
"Skala zur Erfassung der Informationsverhaltensbezogenen Selbstwirksamkeitserwartung"	SWE-IV-16
"Fragebogen zu Selbstwirksamkeit-Optimismus-Pessimismus"	SWLOP-K9
"Fragebogen Leitvorstellungen individuellen und organisationsbezogenen Handelns"	SYMLOG-LIOH
"Synthetische Beanspruchungs- und Arbeitsanalyse"	SynBA-GA
"Führungs-Analyse-Instrument"; "Führungsanalyse Instrument"	SYNPRO-FAI
"Fragebogen zur Selbstsicherheit"	SzSS
"Skala zur sozialen Unterstützung am Arbeitsplatz"	SzSU
"Tätigkeits- und Arbeitsanalyseverfahren für das Gesundheitswesen"	TAA
"Trust Among Coworkers Scale"	TACS
"Tätigkeitsanalyseinventar"	TAI
"Team-Arbeit-Kontext-Analyse Inventar"; "Team Arbeit Kontext Analyse Inventar"	TAKAI
"Task-Analysis-Tools"	TaToo
"Kurzskala Technikbereitschaft"; "Scale technology commitment"	TB
"Tätigkeitsbewertungssystem"	TBS
"Tätigkeitsbewertungssystem Geistige Arbeit für Arbeitsplatzinhaber"	TBS-GA-A
"Skala zur Erfassung der kontinuierlichen Lernkultur"; "Transfer of Training Climate and Continuous Learning Culture Scales"; "Transfer of Training Climate and Continuous-Learning Culture Scales"	TCCLC

"Teamklima-Inventar"; "Teamklima für Innovation"; "Team Climate Inventory"	TCI; TKI
"Trust in Colleagues Scale"	TCS
"Inventory of Character Strengths"; "Three dimensional Inventory of Character Strengths"	TICS
"Inventar salutogener Führung"	TIMP
"Fragebogen zum Technikbezogenen Selbstkonzept"	TKS
"Transformational Leadership Inventory"	TLI
"Transformational Leadership Questionnaire"	TLQ-LGV
"Transformational Leadership Survey"	TLS
"Tätigkeits- und Organisations-Bewertungsinstrument für Arbeits-Systeme"; "Tätigkeits- und Organisations-Bewertungsinstrument für Arbeitssysteme"	TOBIAS
"Transpersonale-Erfahrungen-Inventar"; "Transpersonale Erfahrungen Inventar"	TPE
"Technophobie-Skala"	TPhS
"Fragebogen zur Teamprozess-Messung"	TP-M
"Trust Questionnaire"	TQ
"Training self-efficacy"	TSE
"Task-specific Occupational self-efficacy scale"	TSOSS
"University of California Social Support Inventory"	UCLA-SSI
"User Experience Questionnaire"	UEQ
"Unsicherheitsfragebogen"; "Short Version of Insecurity Questionnaire"	UF
"Unsicherheitstoleranz-Fragebogen"; "Unsicherheitstoleranz Fragebogen"	UFT
"Skalen zur Erfassung der Ungewissheitsorientierung"	UGO
"Ungewissheitstoleranzskala"	UGTS
"Unsicherheitstoleranz-Skala"; "Unsicherheitstoleranz Skala"	UI
"Usability Magnitude Estimation"	UME
"Usability Metric for User Experience"	UMUX
"Dispositional Resilience Scale"	USA
"Fragebogen zum Umgang mit Belastungen im Verlauf"	UVB
"Verfahren zur Aufgabenanalyse und -bewertung"	VAB
"Learning Quality Inventory for In-Company Training in VET"	VET-LQI

"Values in Action-Inventory of Strengths"	VIA-IS
"Veränderungswissen-Fragebogen"; "Veränderungswissen-Fragebogen"	VW-F
"Work and Meaning Inventory"	WAMI
"Work Autonomy Scale"	WAS
"Ward Atmosphere Scale"	WAS
"Ways of Coping Checklist"	WCC
"Ways of Coping Questionnaire"	WAYS
"Work Design Questionnaire"	WDQ
"Work Environment Scale"	WES
"Fragebogen zur Wissenskooperation in Unternehmen"	WiKo
"Workplace Resilience Inventory"	WIR
"Wittener Ressourcenfragebogen"	WIRF
"Selbstwirksamkeitserwartung im Umgang mit sozialen Anforderungen"	WIRKSOZ
"Workplace Identity Scale"	WIS
"arbeitsbezogenes Kohärenzgefühl"; "work-related sense of coherence"; "workrelated sense of coherence"; "Skala zur Erfassung des arbeitsbezogenen Kohärenzgefühls"; "Skala zur Erfassung des Kohärenzerlebens im Arbeitskontext"	Work-SoC
"Workplace Social Capital"	WSC
"Skala zur Erfassung der wahrgenommenen sozialen Unterstützung"	wSU
"Workplace Trust Survey"	WTS, G-WTS
"Skala Zukunftserwartung"	ZE
"Zeitlicher-Fokus-Skala"	ZFS
"Messinstrument zur Erfassung von Zukunftsorientierung"; "Fragebogen zur Erfassung von Zukunftsorientierung"	ZO
"Zimbardo Time Perspective Inventory"	ZTPI

Appendix B

No.	Dimension	Construct	Resource diagnostic instrument	Abbreviation	Study aims and research method	Description of paper	References
1	environmental resources	learning support	Learning Transfer System Inventory	LTSI, GLTSI	validation study with 5,990 employees	factors of learning transfer, also for technology-related trainings	(Bates et al., 2012)
2	environmental resources	learning support	Lernförderlichkeitsinventar	LFI	presentation of a taxonomy	criteria for learning- and competence-promoting design of digitized work	(Dehnbostel, 2018)
	environmental resources	learning support	Lernkulturinventar	LKI			
	environmental resources	tasks	Leitfaden für qualifizierende Arbeitsgestaltung	LQA			
3	environmental resources	learning support	Lernförderlichkeitsinventar	LFI	presentation of a method	user-centered approach for designing digital assistance systems to promote learning	(Haase et al., 2017)
4	environmental resources	learning support	Dimensions of the Learning Organization Questionnaire	DLOQ	questionnaire study with 310 employees	smartphones as a medium for self-directed learning and its factors influencing self-directed work-related use	(Kortsch & Kauffeld, 2016b)
	environmental resources	learning support	Learning Transfer System Inventory	LTSI, GLTSI			
	environmental resources	tasks	Work Design Questionnaire	WDQ			
5	environmental resources	leadership	Empowering Leadership Questionnaire	ELQ	theory development	psychological empowerment approach to support New Work	(Schermuly, 2017)
	environmental resources	leadership	Leader-Member Exchange questionnaire	LMX 7			
6	both	leadership	Health oriented Leadership	HoL	questionnaire study with 262 employees	factors of teleworker's well-being, e. g., leadership and HRM practices	(Günther et al., 2022)
7	environmental resources	leadership	Leader-Member Exchange Questionnaire	LMX 7	questionnaire study with 382 employees	effects of work from home, e. g., social isolation and organizational identification	(Kossen & Berg, 2022)
	environmental resources	tasks	Work Design Questionnaire	WDQ			
8	environmental resources	leadership	Transformational Leadership Inventory	TLI	three questionnaire study with 747 employees	effects of instrumental leadership on technician, e. g., performance and job satisfaction	(Rowold, 2014)
	environmental resources	leadership	Transformational Leadership Questionnaire	TLQ-LGV			

9	environmental resources	social support	Multidimensional Scale of Perceived Social Support	MSPSS	diary study with 100 employees	effects of technology-enabled extra work during recovery time on well-being	(Eichberger et al., 2021)
	both	recovery	Recovery Experience Questionnaire	REQ			
	personal resources	self-efficacy	General Self-Efficacy Scale	SWE, GSE, GSES			
10	environmental resources	tasks	Work Design Questionnaire	WDQ	questionnaire study with 39 employees	technological support can promote autonomy at work	(Tausch & Peifer, 2019)
11	environmental resources	tasks	Work Design Questionnaire	WDQ	validation study with four questionnaires with 929 participants	technology use as a contextual factor of the work design	(Stegmann et al., 2010)
12	environmental resources	tasks	Work Design Questionnaire	WDQ	questionnaire study with 181 employees	effects of social support on teleworkers' sense of exhaustion	(Sigmund & Härtwig, 2022)
13	environmental resources	tasks	Work Design Questionnaire	WDQ	presentation of a method and validation study with 69 employees	transfer of management decisions to artificial intelligence under consideration of work design factors	(Bentler et al., 2023)
14	environmental resources	tasks	Tätigkeitsbewertungssystem	TBS	presentation of a classification scheme based on a case study	introduction of digital assistance systems and qualification of users	(Link & Hamann, 2019)
15	both	tasks	Copenhagen Psychosocial Questionnaire	COPSOQ, COPSOQ II	examination of the neck thighs of 148 employees	physical effects of intensive mouse-based computer work and the effects of ergonomics and social support	(Arvidsson et al., 2008)
16	both	tasks	Copenhagen Psychosocial Questionnaire	COPSOQ, COPSOQ II	questionnaire study with 682 employees	factors of work-integrated learning in times of digital transformation, e.g., activity, leadership, and learning culture	(Richter et al., 2018)
	environmental resources	learning support	Fragebogens zu lernrelevanten Merkmalen der Arbeitsaufgabe	FLMA			
	environmental resources	leadershiup	Führungsspielraumskala	FS-S			
	personal resources	self-concept	Kompetenz-Reflexions-Inventar	KRI			
	environmental resources	learning support	Lernförderlichkeitsinventar	LFI			

	environmental resources	learning support	Fragebogens zum Lernen in der Arbeit	LIDA			
	environmental resources	learning support	Lernkulturinventar	LKI			
17	both	tasks	Copenhagen Psychosocial Questionnaire	COPSOQ, COPSOQ II	questionnaire study with 407 employees	effects of mobile working on health, e.g., presenteeism and business trips	(Kraus & Rieder, 2019)
	environmental resources	tasks	Fragebogen zur Arbeitsanalyse	FAA			
	environmental resources	tasks	Kurz-Fragebogen zur Arbeitsanalyse	KFZA			
18	both	tasks	Copenhagen Psychosocial Questionnaire	COPSOQ, COPSOQ II	validation study with two questionnaires with 918 employees	impact of staff care on employees, e.g., working environment and technical equipment	(Franke et al., 2014)
	environmental resources	culture	Fragebogen zur Messung beruflicher Gratifikationskrisen	ERI, ERI-K			
	both	leadership	Health oriented Leadership	HoL			
19	both	tasks	Copenhagen Psychosocial Questionnaire	COPSOQ, COPSOQ II	presentation of a digitization-related user typology and validation study with 538 employees	forms of dealing with digitization	(Merchel et al., 2022)
20	environmental resources	tasks	Job Diagnostic Survey	JDS	definition development	defining Logistics 4.0 by integrating use of technologies and ergonomics	(Winkelhaus & Grosse, 2019)
21	environmental resources	tasks	Job Diagnostic Survey	JDS	theory development	theoretical process model for the effect of New Work, e.g., psychological empowerment and contextual factors.	(Schermuly, 2020)
22	environmental resources	tasks	Fragebogen zur Arbeitsanalyse	FAA	questionnaire study with 155 employees	consequences on home-office during Covid-19, e.g., autonomy, work-family conflict and isolation	(Scherzinger et al., 2023)
	environmental resources	tasks	Kurz-Fragebogen zur Arbeitsanalyse	KFZA			
23	environmental resources	tasks	Kontrastive Aufgabenanalyse	KABA	presentation of a method	system development with human-technology-organization approach for optimizing communication	(Laue & Müller, 2009)
24	environmental resources	tasks	Kontrastive Aufgabenanalyse	KABA	presentation of a method based on a case study	human-oriented system development based on "human	(Laue & Müller, 2010)

						criteria" for optimizing communication	
25	environmental resources	tasks	Leitfaden zur qualitativen Personalplanung bei technisch-organisatorischen Innovationen	LPI	theory development with scenario building	presentation of two scenarios in incremental and dynamic qualitative workforce planning in times of digitalization	(Ridder & Heyner, 2011)
26	environmental resources	tasks	Comprehensive Meaningful Work Scale	CMWS	13 groups discussions with 50 employees	meaningfulness of home office during the Covid-19 pandemic	(Hardering & Biesel, 2023)
27	environmental resources	tasks	Task-Analysis-Tools	TaToo	systematic literature review	temporal variation impacts on human task performance	(Muhs et al., 2018)
28	environmental resources	technology	System Usability Scale	SUS	interviews with 8 employees	acceptance analysis of the software "Microsoft Teams" using the "Unified Theory of Acceptance and Use of Technology (UTAUT)"	(Schwind & Yetim, 2022)
29	environmental resources	technology	System Usability Scale	SUS	systematic review of 33 studies	studies on industrial back-support exoskeletons in the context of current technological development	(Kermavnar et al., 2021)
30	environmental resources	technology	System Usability Scale	SUS	laboratory study with 30 employees and follow-up questionnaire with 25 participants	assembly instruction in laser projection system in support with wearables; evaluation of the usability, user experience etc.	(Müller et al., 2018)
31	environmental resources	technology	System Usability Scale	SUS	presentation of a prototype based on a literature review	presentation of an employee-centered assembly assistance system and evaluation	(Kaiser et al., 2021)
32	environmental resources	technology	System Usability Scale	SUS	presentation of a method based on a case study	presentation of a method for classification of problem reporting in assistance systems	(Rupp et al., 2020)
33	environmental resources	technology	System Usability Scale	SUS	laboratory study with 8 employees	human-centered development and evaluation of an AR assistance system	(Stern et al., 2022)
34	environmental resources	technology	User Experience Questionnaire	UEQ	presentation of prototype based on a case study	presentation of generic system design for digital competence management	(Melzer & Bullinger, 2017)

35	environmental resources	technology	Software-Ergonomie für Multimedia-Benutzungsschnittstellen	ISO 14915	presentation of prototype based on a case study	presentation of an application-oriented analysis and assistance system for decision-making	(Wittenbröker & Bracht, 2018)
36	both	job crafting	Job Crafting Scale	JCS	cross-sectional questionnaire study with 1,361 employees	effects of the personal dynamic abilities on the job satisfaction, capacity to act etc.	(Müller-Giegler & Spychiger, 2022)
	environmental resources	leadership	Leader-Member Exchange Questionnaire	LMX 7			
37	both	recovery	Recovery Experience Questionnaire	REQ	questionnaire study with 274 employees	effects of technological demarcation tactics on recovery during Covid-19 pandemic	(Haun et al., 2022)
38	both	recovery	Recovery Experience Questionnaire	REQ	diary study with 51 employees	work-related use of information and communication technologies and effects on well-being	(Reinke & Ohly, 2021)
39	both	recovery	Recovery Experience Questionnaire	REQ	questionnaire study with 6,072 employees	buffering effect of job resources, e. g., leadership, social support, innovative climate etc., on stressors, e. g., work intensity, exhaustion etc., and well-being	(Canfal et al., 2021)
	environmental resources	team climate	Team Climate Inventory	TCI, TKI			
40	both	recovery	Recovery Experience Questionnaire	REQ	experiment with 206 employees	break types and their effects on recovery, arousal, and subsequent cognitive performance	(Kortsch & Kauffeld, 2016a)
41	both	recovery	Recovery Experience Questionnaire	REQ	questionnaires study with 528 employees in a cross-lagged panel and three waves	work-related extended availability and effects on sleep and engagement	(Thörel et al., 2021)
42	personal resources	recovery	Need for Recovery Scale	NFR	dairy study with 86 employees	day-specific self-control requirements, mental shutdown, and the effect on well-being	(Gombert et al., 2016)
	both	recovery	Recovery Experience Questionnaire	REQ			
43	personal resources	resilience	Resilience Scale	RS	interviews with 27 employees	identification of resilience factors in managers	(Förster & Duchek, 2017)
44	personal resources	resilience	Brief Resilience Scale	BRS	questionnaires study with 118 employees	effects of home office on the productivity and well-being	

	personal resources	resilience	Resilience Scale	RS			(Bruch & Fürstenberg, 2023)
45	environmental resources	tasks	Work Design Questionnaire	WDQ	questionnaires study with 260 employees	effects of agile work practices in a digital work context on mental health, e. g., engagement, fatigue	(Rietze & Zacher, 2023)
46	both	resources	Ressourcen und Anforderungen	ReA	presentation of a inventory and validation study with two studies of 1,600 employees	industry-independent analysis for identifying job demands and job resources in a digital work context	(Schulte et al., 2021)
47	personal resources	self-concept	Kompetenz-Reflexions-Inventar	KRI	presentation of a inventory and validation study with two studies of 524 employees	determination of professional competence, including the use of technologies	(Kauffeld, 2021)

Appendix C

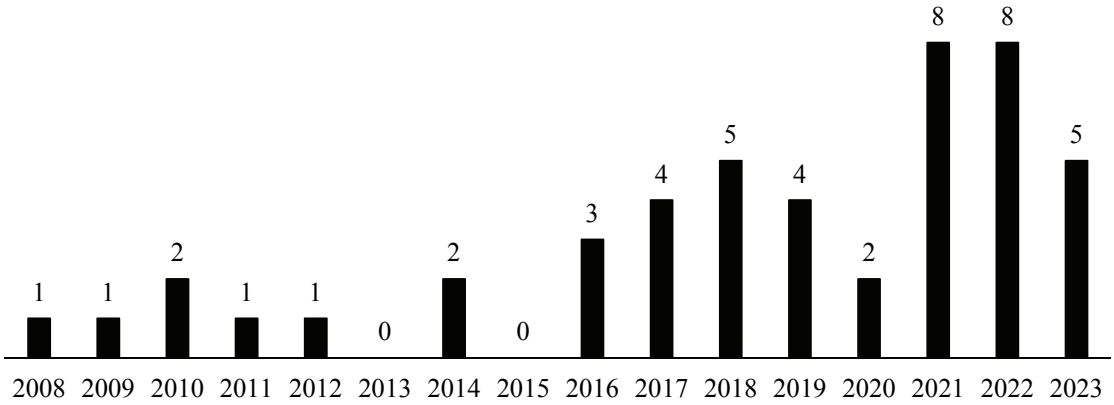


Figure 1: Publication year of the included studies (N=47)

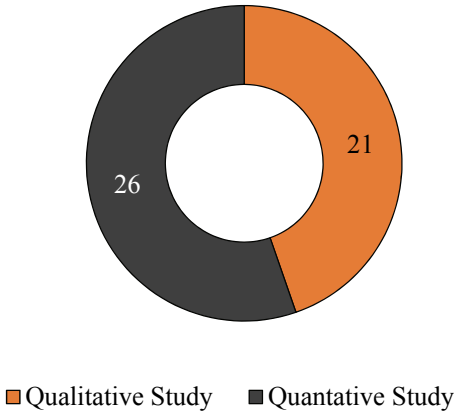


Figure 2: Research approach of the included studies (N=47)

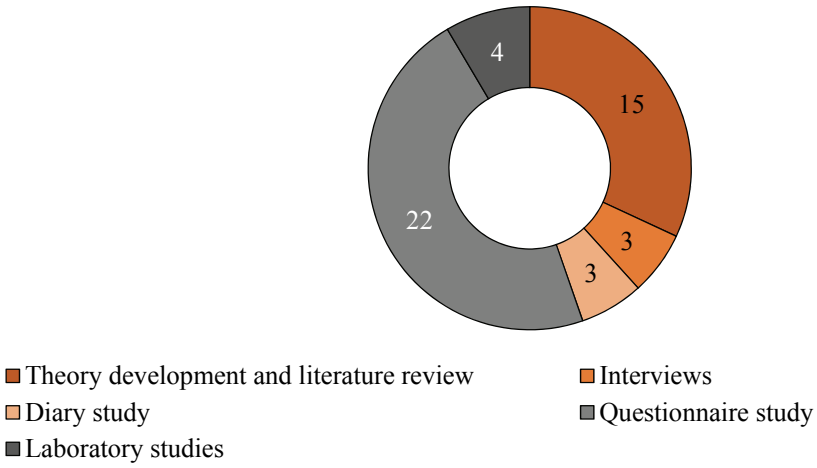


Figure 3: Research methods of the included studies (N=47)

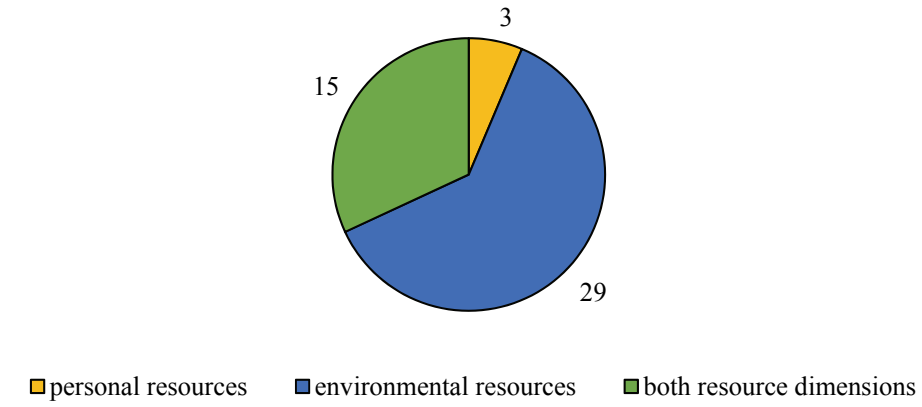


Figure 4: Resource dimensions considered in the included studies (N=47)

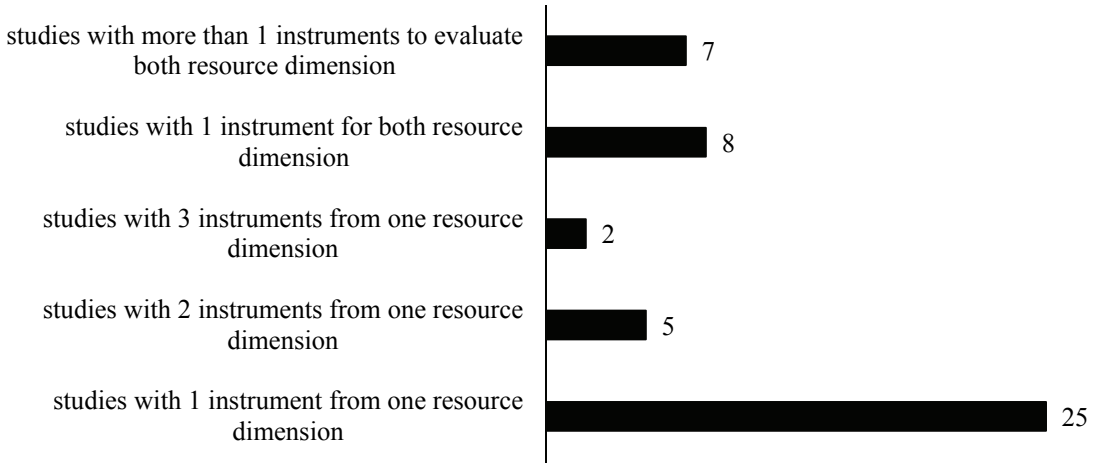


Figure 5: Number of resource diagnostic instruments used in the included studies (N=47)

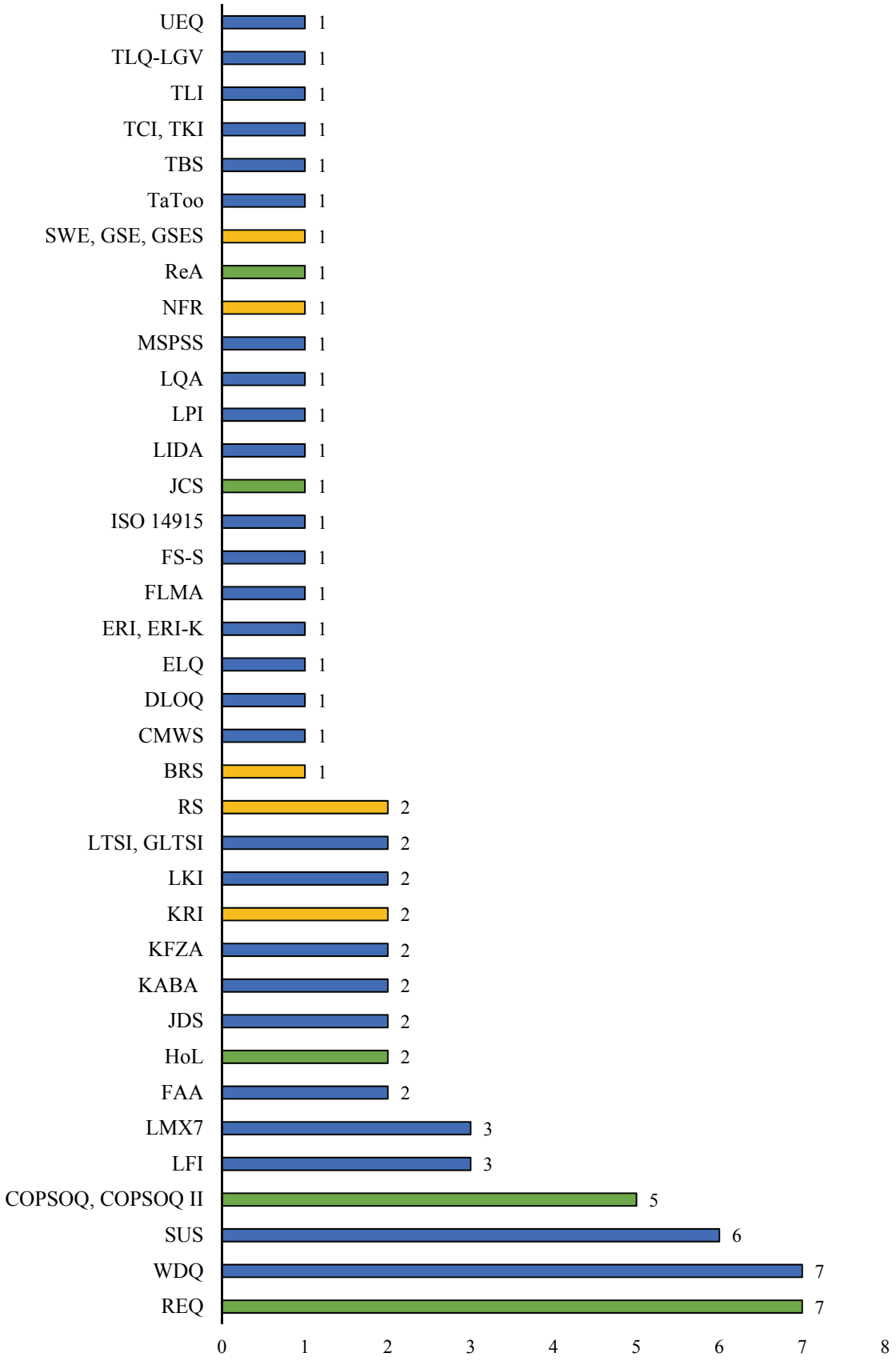


Figure 6: Frequency of use of resource diagnostic instruments in the included studies (N=47) (color scheme based on figure 4)

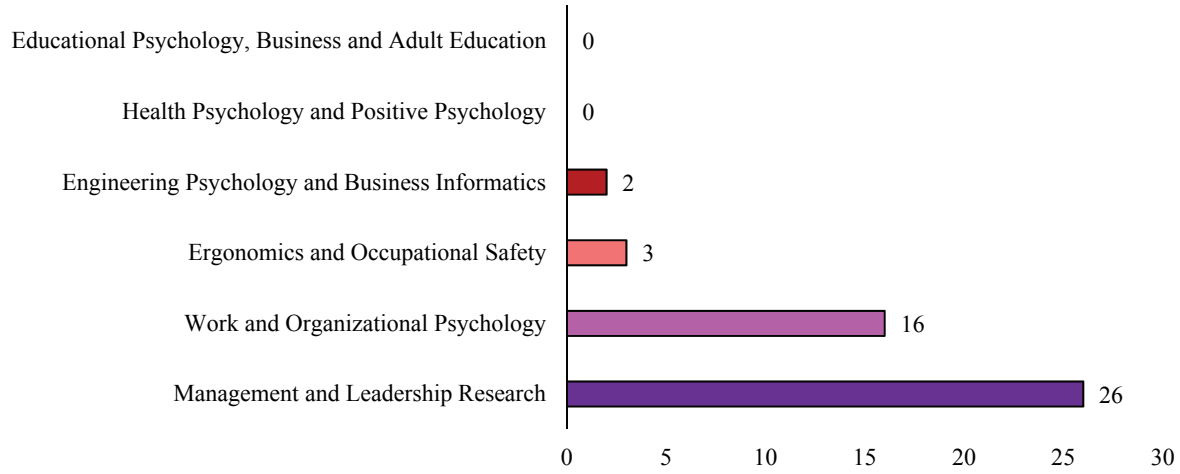


Figure 7: Research traditions of included studies (N=47)

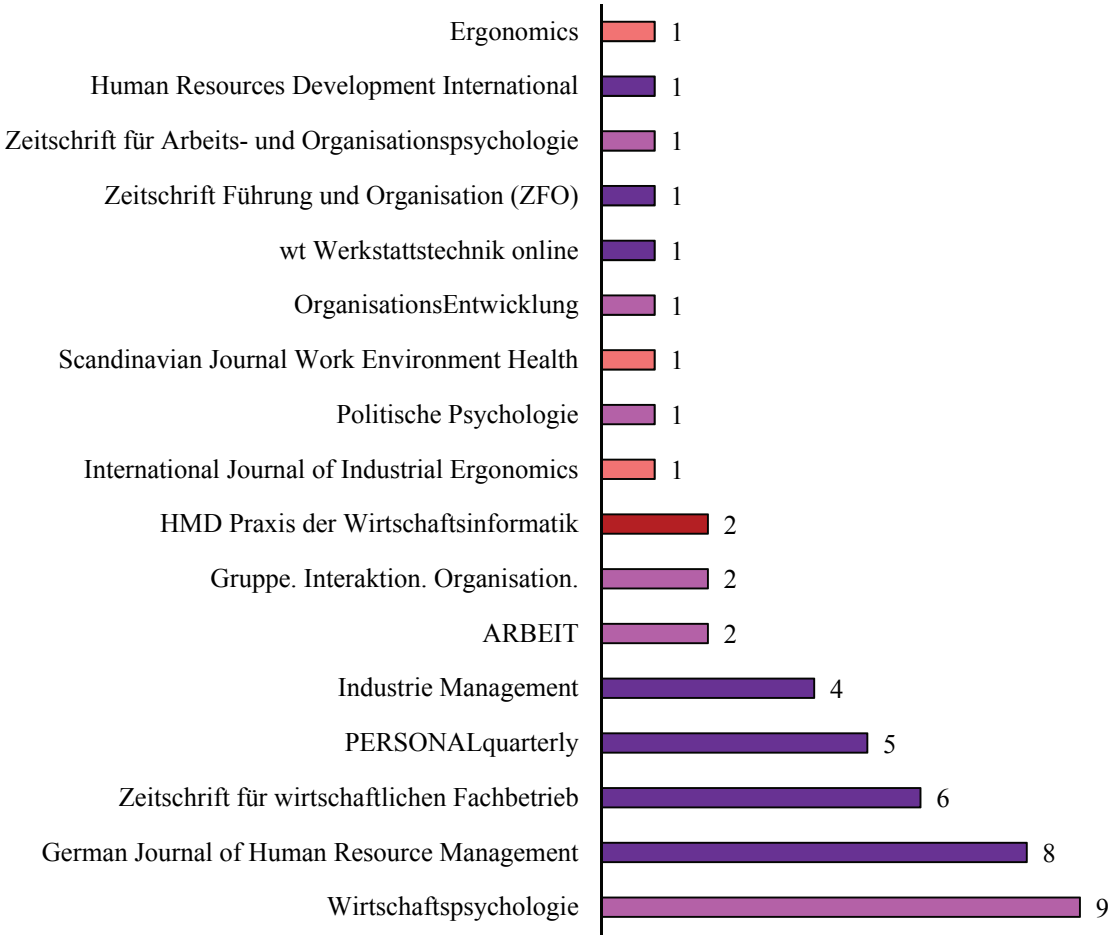


Figure 8: Names of peer-reviewed journals of included studies (N=47) (color scheme based on figure 7)