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Understanding and measuring skill gaps in Industry 4.0 – A review

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Today, industry relies heavily on advanced technologies. A significant skill gap is one of the biggest hurdles for the sustainable and digital transformation of industry. Hence, industries are confronted with the lack of right-skilled workers, contributing to a slowdown in adopting key technologies and reaching key goals (Di Battista et al., 2023; González Chávez et al., 2023). Changes in working life, such as digital transformation, demand specific skills not necessarily taught by educational institutes or developed in the labor market. Fostering a work environment in which employees can continuously develop their potential is thus vital. Industries must understand the scope of the changes, the content of work requirements, and the skills needed from the workforce (Karacay, 2018). Although the need to address skill gaps is evident and more topical than ever, an in-depth understanding of the concept is lacking. The main challenge in identifying skill gaps is the blurred line between work–life needs, political recommendations, and empirical research results. Skill gaps can be defined in various ways, making measuring them difficult (Schwalje, 2012). The lack of clear and objective results, in turn, may lead to false arguments based on biased interest or little or no evidence of actual skill gaps (Cappelli, 2015), resulting in misdirected training resources.

There thus exists a research gap on the skill gap concept and the related measurement approaches. Our aim was to shed light on the skill gap concept and the approaches taken to understand and measure it. Using the PRISMA guidelines, we systematically searched and retrieved English records from the ProQuest, ScienceDirect, Scopus, and Web of Science databases in January 2023. In total, 40 articles met our predefined inclusion criteria, and we analyzed them descriptively and qualitatively using thematic analysis and constant comparisons.

We found that skill gaps certainly exist, and concerns about growing skill gaps have been raised worldwide. There was also a clear need for a common understanding of skill gaps. Considering this, we defined a skill gap as “a difficulty in providing the right skills to the right people at the right time in changing business realities.” Since we found very few studies that employed different methods and perspectives to actually measure skill gaps in practice, more research is needed to map actual skill gaps. We believe converging data from multimodal and multiple approaches, systems, and sources with more traditional measures, such as surveys, could offer a more comprehensive understanding of the skill gap phenomenon.

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(Un)expected Emotions and Teamwork – Narratives of Early Childhood Education Practitioners

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Teamwork in the Finnish early childhood education and care (ECEC) is an important context for the construction and sharing of emotions. From a narrative perspective, examining the expectations of ECEC practitioners allows us to understand the construction of practitioners' emotions. In this poster, expectations and emotions in teamwork are understood as narratively constructed, i.e. as social and dynamic processes situated in time and place (see e.g. Kleres, 2011). In this poster, we will address the question of what kind of expectations for teamwork ECEC practitioners produce in their narrations about emotions related to teamwork.

The data of the study consist of video-cued interviews (see Tobin, 2019) with 15 ECEC practitioners collected as part of a larger research project. The data was analysed using the expectation analysis, i.e. by identifying the linguistic features of narrative speech indicating expectations (see Tannen, 1993). As a result, three types of narratives were identified about expectations and the emotions associated with them: 1) the narrative of inadequacy, 2) the narrative of injustice, and 3) the narrative of support. The narratives describe how the limited shared time, limited influence