Learning climate scale: Construction, reliability and initial validity evidence

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ABSTRACT

The current study developed an instrument for measuring learning climate in organizations. A review of the organizational learning and facilitation of workplace learning literature resulted in three theoretically relevant dimensions referring to facilitation, appreciation, and error avoidance. The 3-dimensional learning climate scale (LCS) was tested in a heterogeneous sample of Dutch wage earners (N = 1013). Confirmatory factor analysis and analysis of measurement invariance were conducted to establish the factorial structure of the measure. Also, convergent, divergent, and construct validity of the LCS were investigated. The findings showed that the newly developed instrument for learning climate has good psychometric properties: the three-factor structure was supported and the sub-scales were reliable. Furthermore, the LCS showed good convergent and divergent validity.

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Employee workplace learning is essential for organizations in the fast-changing global economy (Billett, 2004; Coetzer, 2007; Eraut, 2004; Kyndt, Dochy, & Nijs, 2009). Companies are continuously exposed to environmental pressures to adapt to new conditions in a quick and efficient fashion. This implies that employees need to obtain new competences in order to meet the demands inherent to changed conditions. In these circumstances, the capacity of the organization to stimulate employee learning is particularly important for its survival (Carmeli, Tishler, & Edmondson, 2012; Kyndt, Dochy, & Nijs, 2009). Furthermore, a learning-supportive environment is considered to be one of the key factors determining employees' readiness to participate in organizational change (Choi & Ruona, 2011; Van Dam, Oreg, & Schyns, 2008). Given the strategic importance of employee learning, organizations should assign a clear priority to fostering the professional development of their workforce through shaping and promoting a learning-supportive climate (Shipton, Dawson, West, & Patterson, 2002).

The primary goals of the current study were to develop and provide initial evidence for the validity of a learning climate scale (LCS) that can be applied in different occupational settings. In the past three decades, studies of workplace learning have largely focused on predictors of employees' learning activities (e.g., Maurer & Tarulli, 1994), on defining typologies of workplace learning (e.g., Coetzer, 2007; Marsick, 2009), and on studying the effects of learning for organizations and employees (e.g., Van Ruysseveldt, Verboon, & Smulders, 2011). Less attention has been paid to the organizational conditions and practices that can stimulate or hamper employee learning at work (Eraut, 2004). Especially learning climate has received limited research attention, which might be due to a lack of a valid and easily applicable measure. This study addresses this gap by developing a learning climate measure based on a thorough

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review of the literature on organizational facilitation of employee learning. Three core dimensions of a learning climate were identified referring to facilitation, appreciation, and error avoidance. To enhance the instruments' practical application, we tap into these dimensions by using a limited number of items.

Developing a multidimensional diagnostic tool for measuring learning climate has theoretical and practical implications. Gaining a better understanding regarding the learning supportive organizational conditions and practices is vital for further theory development. Moreover, fostering employee learning at work requires a diagnostic tool that can help practitioners establish whether and to what extent the climate in their organization possesses or lacks learning-supportive characteristics. In order to help organizations optimize the processes of learning at work, it is important for human resource management (HRM) professionals to be able to quickly and accurately identify the aspects of the organizational environment that can facilitate employee learning. Our measure for learning climate might support organizations in their efforts to guide, shape and accelerate the learning processes within the organization (Hauer, Nordlund, & Westerberg, 2012; Tracey & Tews, 2005).

1. Organizational learning climate

In the literature, organizational facilitation of learning has been referred to in different ways, such as "learning climate" (Bartram, Foster, Lindley, Brown, & Nixon, 1993), "learning culture" (Egan, Yang, & Bartlett, 2004), and "learning opportunities" (Billett, 2004). Culture and climate are two complex and strongly entangled concepts; the differentiation of which has provoked numerous discussions in past decades (Arnold et al., 2005; Bates & Khasawneh, 2005; Schneider, Ehrhart, & Macey, 2013). Elaborating on the distinction between climate and culture, Schein (1990) and Schneider, Brief, and Guzzo (1996) advanced that climate is the more salient layer and direct manifestation of a less tangible phenomenon, i.e. culture. Culture concerns employees' "less conscious psychology of the workplace" (Schneider et al., 1996), including the established beliefs and values of individuals about the organization. Climate refers to the more easily observable and thus measurable attributes of the work environment, and has been defined as "the shared perceptions of and meaning attached to the policies, practices, and procedures employees experience and the behaviors they observe getting rewarded and that are supported and expected" (Schneider et al., 2013, p. 362). As the work environment holds a number of characteristics that can account for the unset and forming of certain common interpretations, different climates (e.g., learning, performance, innovation, and creativity) can be derived based on these characteristics (Hauer et al., 2012). In line with Schein (1990) and Schneider et al. (1996), the current study views organizational climate and culture as separate constructs. While organizational culture embodies the implicit or "less conscious" attributes of the workplace (Schneider et al., 1996), in the current study we were predominantly interested in the more salient aspects of work settings that are innate to organizational climate and foster employee learning.

In line with established definitions of climate (e.g., Schneider et al., 1996, 2013), we defined learning climate as employees' perceptions of organizational policies, and practices aimed at facilitating, rewarding and supporting employee learning behavior. Previous research has shown that learning climate is a precursor of valuable outcomes, such as employees' learning intentions, positive attitudes towards learning and participation in learning activities (Armstrong-Stassen & Schlosser, 2008; Govaerts, Kyndt, Dochy, & Baert, 2011; Hauer et al., 2012). Research also indicates that learning climate is an important predictor of innovative behavior (Sung & Choi, 2014) and performance (Van Dam, in press). Moreover, learning climate has been found to counteract negative employee outcomes, such as turnover intentions and work stress, and increase positive outcomes such as job satisfaction (Egan et al., 2004; Govaerts et al., 2011; Mikkelsen, Saksvik, & Ursin, 1998).

Whereas the findings of these studies unanimously show the importance of a learning climate for organizational and personal outcomes, there is less agreement about what comprises a learning climate and how it should be measured. Although learning climate is generally viewed as a construct that focuses on the support, opportunities, and "space" for learning provided by the organization (Marsick & Watkins, 2003; rtenblad, 2002), some researchers emphasize the relevance of opportunities to develop, access information, and connect to others (Bartram et al., 1993), while others stress the importance of appreciation and stimulation (Kyndt, Dochy, Michielsen, & Moeyaert, 2009; Tracey & Tews, 2005). A similar lack of consensus becomes apparent when looking at existing scales for the facilitation of learning. Some researchers have developed scales assessing learning climate as a phenomenon at different levels within the organization (Marsick & Watkins, 2003; Tracey & Tews, 2005). Tracey and Tews (2005) for instance viewed learning climate as a construct that is best described by the dimensions organizational, managerial, and job. Other researchers chose to study learning climate at a single organizational level, and within this level have distinguished a number of dimensions, such as reward, material opportunities, and other facilities for learning (Bartram et al., 1993). Moreover, existing scales often encompass different aspects of learning climate within one scale (e.g., Kyndt, Dochy, Michielsen et al., 2009; Marsick & Watkins, 2003). Finally, most studies on learning climate tend to assess the construct using a rather large number of items.

This situation stresses the need for a short, validated, multidimensional scale with good psychometric properties that taps into the core aspects of the learning climate construct. Based on an extensive review of the climate literature, the learning climate literature, and the learning facilitation literature, this study distinguished three dimensions that appear to be present in most existing conceptualizations of climate and learning climate: the provision of facilitation for learning (e.g., support and opportunities), the provision of appreciation for learning activities (i.e., material and non-material rewards), and the provision of tolerance for learning-related errors. The latter dimension is generally referred to as 'error-avoidance' in the literature (e.g., Van Dyck, Frese, Baer, & Sonnentag, 2005). These three aspects of learning climate have been found to be particularly salient for employee learning (e.g., Kyndt, Dochy, Michielsen et al., 2009; Tracey & Tews, 2005).