The impact of leadership on the workplace learning of individuals and teams: a literature review and synthesis

Fredrik Hillberg Jarl

School of Business, Economics and IT University West, Trollhättan, Sweden

Abstract

Purpose – The purpose of this study is to review literature on the relationship between leadership and workplace learning, to critically analyze and discuss findings and to suggest future research paths based on the synthesis.

Design/methodology/approach – This study applied a refined literature review process leading to a selection of 40 articles, which originated from 14 internationally acclaimed journals.

Findings – When explaining leadership influence regarding individual and team learning, the concepts of role modeling behavior, relational support and negotiation of meaning is significant. If leaders provide support, show exemplary behavior and negotiate individual arrangements with employees, workplace learning development is positively affected.

Research limitations/implications – Future studies should focus on empirical cases further illustrating how the leader–employee relationship is formed in practice, to further understand differences in leadership influence on employee workplace learning.

Practical implications – The gathered knowledge implicates that carefully designed leadership training programs and personalized work arrangements between leader and employees are beneficial for leader's ability to influence employee workplace learning.

Originality/value – The reviewed studies were solely published in top management journals, which resulted in an original literature selection. This study also discusses implicit or articulated assumptions about the view of learning in the selected studies, offering additional understanding about the underlying learning views in leadership–workplace learning research.

Keywords Team learning, Leadership, Employees, Learning, Workplace learning

Paper type Literature review

Introduction

Workplace learning can be understood as ongoing identity work that takes place in and through individual participation in practices at the workplace (Harman, 2012). Workplace learning can also be defined as the acquisition and integration of knowledge, skills, values and emotions that result in fundamental changes in focus and behavior of individuals and teams (Garavan, Morley, Gunnigle, & McGuire, 2002). Workplace learning can thus include

both individual learning, consisting of social interaction with her/his environment and the psychological possible absorption of influences and impulses (Illeris, 2004) *and* team learning. Teams are working groups that exist within a larger organizational context, they have a clearly defined membership and they also share responsibility for a joint product or service (Carton & Cummings, 2012; Salas, Cooke, & Rosen, 2008; Sundstrom, De Meuse, & Futrell, 1990). Examples of learning behaviors in teams include seeking feedback, sharing information, asking for help, talking about mistakes and experimenting (Edmondson, 1999). As team members continuously perform activities, emerging states evolve which can be described as the team's current perceived level of unity, trust or disagreement (Jacobsson & Åkerlund, 2019). Team learning thus consists of both team processes and the results of these processes. Billett (2002a, 2002b) additionally describes workplace learning as an "interdependent process between how a workplace affords opportunities to participate in diverse practices and how employees choose to respond to these affordances" (Tynjälä, 2022, p. 436). These opportunities to participate can be provided by the leadership in the organization (Wallo, Kock, Reineholm, & Ellström, 2021), potentially involving employees to participate in activities that could support personal meaning-making and thus learning (Wenger, 2000; Winch & Ingram, 2002). Cooke, Wang, & Bartram (2019) show in addition that social support at the workplace can develop an enhanced ability to cope with change and emotional well-being. These insights imply that workplace learning is important for the organization to notice and enhance, potentially through its leaders.

Learning that takes place in the workplace is also always explicitly or inexplicitly affected by the way work is organized and the function of work in society (Illeris, 2004). Workplace learning can be described as a set of processes that take place within specific organizational contexts however also affected by the organization of work and the function of work in society. Leaders handle their own learning processes and are, assumingly, simultaneously influencing others in line with the role they have in the organization. Learning then always include both the individual's social interaction with his or hers environment *and* the individual's psychological possible absorption of influences and impulses (Illeris, 2004). Ultimately, from an organizational perspective, awareness of the potential of workplace learning can concretely include supporting learning opportunities, which leaders can enable with their respective employees. A strive to influence learning at the workplace have also been described as one of the greatest tasks that leadership in organizations has (Matsuo, 2012; Yukl, 2009). But, even if learning opportunities are rich at a workplace, actual learning outcomes in the form of real change in behavior still can be scarce or absent since it is the individuals themselves that constitutes the learning.

Research about the relationship between leadership and workplace learning have been recently reviewed by Lundqvist, Wallo, Coetzer & Kock (2023), who assembled and evaluated existing quantitative studies about the relationships among leadership, learning and potential mediating and moderating variables. Lundqvist, Wallo, Coetzer & Kock (2023) found statistically significant relationships between different types of leadership and learning at the individual, group and organizational levels, but also that the empirical basis for causality claim between leadership and learning influence is missing in research. Knowledge about boundary conditions and moderators was found to be scarce. According to Lundqvist, Wallo, Coetzer & Kock (2023), this research area seems to be generally oriented toward quantitative methodology. Future research should seek to use high-quality, longitudinal research using identical data collection instruments in different contexts and among different occupational groups (Lundqvist, Wallo, Coetzer & Kock, 2023).

To further explore this extensive and fragmented research area this review will delineate the inclusion of prior studies to studies published in high-quality business, management and organization journals. This conduct is done to complete prior literature review with regard to the

credibility of these high-quality journals, further substantiating a knowledge base upon which future high-quality research can be employed. As publication in a high-quality journal is an important criterion in this review, final selection should include studies using qualitative, quantitative and theoretical literature-based studies, adding width and relevance. This review is needed because of the limitations of prior review in their focus on quantitative research only (Lundqvist, Wallo, Coetzer & Kock, 2023) and their differing focus on the contribution of learning-oriented leadership on learning on an individual, group and organizational level – excluding the concept of workplace learning. Workplace learning is in this review conceptualized as learning at an individual and group level in an organizational context (Garavan *et al.*, 2002), and workplace learning is thus the main concept of interest in this review in its relation to leadership in the included studies various definitions and conceptualizations. Leadership is in this review conceptualized through the conceptualizations used in included studies of the review. Results of this review should affirm and expand the current knowledge base regarding the relationships between leadership and workplace learning.

The purpose of this paper is thus to review literature on the relationship between leadership and workplace learning, to critically analyze the explored literature to establish a knowledge base and to suggest future research paths based on the synthesis.

Method
To summarize and analyze literature on workplace learning and leadership, this study used a systematic literature review (SLR) methodology (Tranfield, Denyer, & Smart, 2003). SLR has proved advantageous in the assessment of a given body of literature in the field of business and organization studies due to its transparency, rigor and replicability (Snyder, 2019). Carrying out an SLR is described by Tranfield *et al.* (2003) as a work in three stages: planning the review including identification of research; conducting the review including quality assessment, data selection and synthesis of data and, finally, reporting and spreading insights to practice.

Conducting the review
First, an identification of the need for a review was conducted (Tranfield *et al.*, 2003), and after this initial stage, the process of study selection began. Here, relevant search terms were added in an inclusive way by assembling a list of keywords related to "workplace learning" and "leadership". The keywords and their synonyms were used in a combined search string using Boolean operators OR and AND (Appendix 1). The search results were intended to include relevant studies for this review, although there was also an awareness that this procedure would not include a complete compilation of all the available research about workplace learning and/or leadership. Next, a decision was made about which databases and exclusion and inclusion criteria that would be applied. The databases Academic Search Premier, Sociology Source Ultimate, Business Source Ultimate and Scopus became database sources, as these were assessed to contain a large number of relevant articles in the field of business administration and multi-disciplinary research (Hanelt, Bohnsack, Marz, & Antunes Marante, 2021). The bibliographic database service EBSCOhost served as a starting point for Academic Source Premier, Business Source Ultimate and Sociology Source Ultimate. Scopus was used through their own search service. The search was performed on peer-reviewed, full-text articles in academic journals. No restriction was imposed on the year of publication. All studies were in English. Based on the specified search string in these databases, 4,357 articles were found (Table 1) published between 1976 and 2020, accentuating that a delimitation was necessary.

The Association of Business Schools Academic Journal Guide 2018 (AJG 2018) is regularly used in SLRs, as it indicates a level of quality for the included journals, thus enabling identification of high-quality studies (Siachou, Trichina, Papasolomou, & Sakka, 2021) and by offering a way to delimit the selection of studies, which could otherwise be unmanageable (Pittaway, Robertson, Munir, Denyer, & Neely, 2004). Based on a need to delimit study selection and enable high-quality study selection, a decision to only include articles published in journals with a rank of 4 or 3 in AJG 2018 was made. This action secured articles stemming from 14 significant journals that contributed with 1–6 articles per journal (Table 2), minimizing the risk of biased journal inclusion.

The decision to only include articles from Rank 4 or 3 journals did exclude 4,165 articles securing a high-quality cross selection of published studies. There was a high awareness that using this inclusion criteria would leave out several studies in the area, meaning that the final selection would not provide an exhaustive compilation of the research field. However, this decision ultimately secured internationally acclaimed quality in the selection of articles which resulted in a relevant cross selection of articles, enhancing the relevance of this review. From the EBSCOHost website, 112 articles were found from a Rank 4 academic journal and 76 articles from a Rank 3 academic journal. A total of 4 articles were found from Scopus adding to a total of 192 articles at this point (Figure 1).

The data analysis was then performed through an manual content analysis (Siachou *et al.*, 2021) to identify studies with focus on leadership in relation to workplace learning on an

Database	Profile	No. of hits
Academic Search Premier	Multi-Disciplinary	1,705
Business Source Ultimate	Business	1,700
Sociology Source Ultimate	Sociology	280
Scopus	Multi-Disciplinary	672
	Total number of hits	4,357

Table 1.
Database, profile and number of search hits **Source:** Authors' own work

Journal	Rank	Articles
Human Relations	4	6
Journal of Business Ethics	3	5
Management Learning	3	5
Human Resource Management	4	4
Journal of Applied Psychology	4	3
Organizational Dynamics	3	3
Academy of Management Journal	4	2
Administrative Science Quarterly	4	2
Applied Psychology: An International Review	3	2
Human Resource Management Journal	4	2
International Journal of Contemporary Hospitality Management	3	2
Personnel Psychology	4	2
Academy of Management Review	4	1
Organization Science	4	1
Total number of journals	14	
Total number of articles included	40	
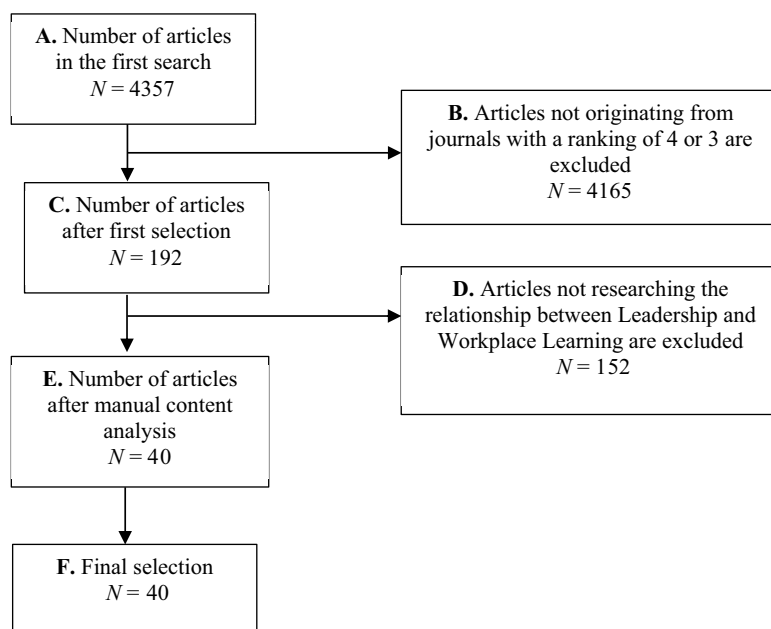
Table 2.
Journals, rank and number of articles included from each journal **Source:** Authors' own work

Figure 1.
Description of the
selection process

individual and team level and to exclude the articles that did not study this research area. Articles that were excluded were studies that focused on an organizational level of learning, for example, Harris and Wood's (2020) study about middle managers' influence on organizational learning processes or Vera and Crossan's (2004) study about links between organizational learning and strategic leadership. Other studies that were excluded were studies that studied the potential impact of other roles (not leaders) on learning at the workplace, such as educators (Hutchins, Burke, & Berthelsen, 2010; Mathis, 2020), union representatives (Bacon & Hoque, 2011) or "lectores" (readers) (Germain & Grenier, 2015). Also, studies with an employee perspective focusing on how learning conditions can be improved (Collin, Keronen, Lemmetty, Auvinen, & Riivari, 2021; Gustavsson & Lundqvist, 2021) was excluded. This thorough reading resulted in a final selection of 17 articles from Rank 3 journals and 23 articles from Rank 4 journals, a total of 40 articles.

The selection of 40 articles (found in full in Appendix 2) consisted of 32 empirical and 8 theoretical studies, published between 1976 and 2020. The empirical studies had a variation in geography, with studies from Europe, North America, Asia and Australia represented. The empirical studies included large multinational companies, public organizations, health-care organizations, high-tech companies and hotels.

The next step in the process was to carefully read the 40 articles to primarily create an understanding of each study's conceptualization of leadership and workplace learning and each study's methodology and results. This was an interpretative process frequently described as a meta-synthetic approach (Tranfield *et al.*, 2003) in which similarities and differences between articles was synthesized into main topics, creating presentable and accessible summarizations. Definitions of workplace learning emphasize that individual

learning and team-level learning are the main levels of analysis in the concept (Garavan *et al.*, 2002), and the applied selection confirm that these studies only consisted of studies that implicitly or explicitly examined the impact of leadership on workplace learning on an individual or team level. Of the 40 articles (found in full in Appendix 2), 27 was categorized as focused on individual learning and 13 on team learning.

Reporting the review

When the synthesis of the data material is performed, Tranfield *et al.* (2003) recommend that the actual reporting of the literature review is done by describing the field of knowledge in a concise and detailed manner. Included articles was processed with a special interest to code year of publication, authors, level of learning (individual or team), theory used, method applied, results and journal. Appendix 2 is based on the results of coding the data material and clarifies the level of learning applied, what leadership concepts or entity that were applied and the summarized results of the study. Appendix 2 was used in the results section to thematically link, visualize and analyze learning and leadership concepts with each other. With the continuous help of Appendix 2, the results then were immersed to identify an underpinned knowledge base and conclusions were drawn, identifying possible future research paths.

Results

Overview picture

The results from the data material describes how leadership, defined and delimited in specific ways, influences or affect individual and team learning within the framework of an organizational work environment. The 40 articles constituting the data set were published in 14 different academic journals during the years 1976–2020. Biggest contributors were *Human Relations* with 6 articles, *Journal of Business Ethics* and *Management Learning* with 5 articles each and *Human Resource Management* with 4 articles. Of these 40 articles, 8 were conceptual and 32 were empirical. The reviewed empirical studies adopt both a survey based ($n = 19$), experimental ($n = 2$), mixed ($n = 3$) and an interview-based methodology ($n = 8$). A quantitative survey-based methodology is the preferred method in the reviewed articles, presumably a results of the applied inclusion criteria. In the following, results are presented by clustering subheadings around individual learning and team learning. Each section concludes with a summary.

Leadership and individual learning at the workplace

Four studies in the selection examined individual learning described as workplace learning (Table 3), and the role that the leader has in the creation or obstruction of this learning.

According to Snoeren, Niessen, and Abma (2015), workplace learning can be considered as a by-product that the individual absorbs while working to improve practice. To activate and enable this individual learning in the workplace, Rainbird and Munro (2003) state that the leader has a key role. Employee learning benefits from their leaders working with exemplary behavior, goals and encouragement for critical thinking and reflection (Matsuo, 2012). When the manager shows confidence in the workers' ability to learn, workers' attitudes and behaviors change in a positive way, which leads to a higher degree of learning in the workplace (Sterling & Boxall, 2013). Lack of strengthening or confidence-building behavior on the part of managers for the employees' abilities also leads to less or no learning on the part of the employees (Sterling & Boxall, 2013).

A total of 15 studies in data set (Table 4) studied the relationship between different types of leadership and the individual learning of employees. Individual learning in these studies

Year	Authors	Type of learning	Type of leader	Theory	Method	Results	Publisher
2003	Rainbird, H. & Munro, A.	Workplace learning	Managers	Manual/routine jobs, workplace learning	Interviews	Even where the organization's positive approach to workplace learning is reflected in managerial commitment, there may still be barriers to the participation of individuals or groups of staff	*Human Resource Management Journal*
2012	Matsuo, M	Workplace learning	Nursing managers	Reflective practice, transformational leadership, workplace learning	Mixed	Reflective practice combined with goal setting and social learning promotes workplace learning	*Management Learning*
2013	Sterling, A. & Boxall, P.	Workplace learning	First-line managers	Ability-motivation-opportunity framework	Interviews	Deeper learning has yet to take hold where production pressures are high, line managers are not enabling and workers lack self-efficacy because of low literacy	*Human Resource Management Journal*
2015	Snoeren, M. M., Niessen, T. J., & Abma, T. A.	Workplace learning	Managers	Work-related learning	Interviews	The case illustrates that learning in and through work is predominantly an embodied and responsive phenomenon that usually occurs implicitly while acting	*Management Learning*

Source: Authors' own work

Table 3.
Studies defining
learning as
workplace learning,
on the influence of
leadership on
workplace learning

Year	Authors	Type of learning	Type of leadership	Theory	Method	Results	Publisher
1981	Manz, C. C. & Sims Jr, H. P	Individual learning	Managerial modeling, public rewarding	"Antecedent Learning" – social learning theory (Bandura)	Theoretical/ literature	Managers need to use modeling effectively to enhance the achievement of organizational and personal goals. In particular, attention should be given to day-to-day modeling and to formal training to effect organizational behavior changes	*Academy of Management Review*
1999	London, M. & Smither, J.W	Individual learning	Managers	Deci's self-determination model of intrinsically motivated behavior	Theoretical/ literature	This shows how organizations can encourage self-development by providing nonthreatening performance feedback, ensuring behavioral choices for learning, encouraging feedback seeking and rewarding participation in learning activities and other self-determined behavior	*Human Resource Management*
2002	Winch, A. & Ingram, H	Individual learning	Leadership maturity framework	Action learning	Interviews	Action learning has real power to make personal sense of learning in the workplace but that learning effectiveness will depend on the individual's level of maturity. A model of leadership maturity in which individual learners discern personal meaning from events around them	*International Journal of Contemporary Hospitality Management*

(*continued*)

Table 4.
Studies on leadership, in relation to individual learning

Year	Authors	Type of learning	Type of leadership	Theory	Method	Results	Publisher
2002	Driver, M	Individual learning	LMX	Social exchange theory – a model of learning in organizations	Survey	The model postulates that individuals in organizations accomplish learning by specializing in certain learning tasks. This specialization is based on role behaviors and resources that constrain or facilitate learning opportunities negotiated in the workplace between subordinates and their superiors	Management Learning
2008	Pastoriza, D., Arino, M. A., & Ricart, J. E	Individual learning	Ethical managerial behaviour	Organizational social capital	Theoretical/literature	Managers' behaviour should be based on three principles: following exemplary behaviour, helping the employees to value the consequences of their actions in other persons and not betraying employees trust. When the manager conforms to those principles, he can ease the process through which employees develop associability and identification-based trust with the firm	Journal of Business Ethics
2009	Williams, E. A., Scandura, T. A., & Gavin, M	Individual learning	Supervisors TCM	Team-level LMX, peer mentoring and proactive member behavior	Survey	TCM had a positive effect on individual team-source learning and had mediating effects on the relationships between the team contextual factors and individual team-source learning	Human Relations

(continued)

Table 4.

Table 4.

Year	Authors	Type of learning	Type of leadership	Theory	Method	Results	Publisher
2010	Gebert, D., Boerner, S., & Kearney, E	Team learning	Team delegative/ directive leadership	Team innovation, team action strategies	Theoretical/ literature	Open action strategies (e.g. delegative leadership) promote knowledge generation, and closed action strategies (e.g. directive leadership) enhance knowledge integration. Each pole of a pair of opposing action strategies both energizes and detracts from elements of innovation	*Organization Science*
2011	Golden, T. D. & Fromen, A	Individual learning	Managerial work modes	Work experience, work outcome	Survey	In comparison to subordinates with managers in a traditional work mode, work experiences and outcomes are generally less positive for subordinates with teleworking managers who spend a portion of the week away from the office, and they are lower as well for subordinates with virtual managers who are away from the office full-time. These results differ based on the subordinate's own work mode	*Human Relations*
2013	Kacmar, K. M., Andrews, M. C., Harris, K. J., & Tepper, B. J	Individual learning	Ethical leadership	Social exchange theory, uncertainty management theory (UMT), perceptions of politics (POP)	Survey	Perceptions of organizational politics fully mediated the relationship between perceptions of ethical leadership and helping and promotability ratings. In addition, political skill was found to moderate the direct and indirect effects	*Journal of Business Ethics*

Year	Authors	Type of learning	Type of leadership	Theory	Method	Results	Publisher
2015	Bouckenooghe, D., Zafar, A., & Raja, U	Individual learning	Ethical leadership	Social learning theory (Bandura)	Survey	Ethical leadership has a positive effect on followers' in-role job performance, yet this effect is explained through the role of psychological capital and follower–leader goal congruence, providing evidence of mediation	*Journal of Business Ethics*
2015	Boekhorst, J. A	Individual learning	Authentic leadership	Social cognitive theory (Bandura), social information processing theory	Theoretical/ literature	Authentic leaders and followers who share cooperative goals related to developing a climate for inclusion can prompt the vicarious learning of inclusive behaviors by followers	*Human Resource Management*
2016	Schaubroeck, J., Carmeli, A., Bhatia, S., & Paz, E	Team learning	TLC	TLC behaviors, group leadership	Survey	Team leader coaching behaviors exhibited indirect, positive relationships with both team innovation effectiveness and team task performance through team learning	*Human Relations*
2016	Tucker, S., Ogunfowora, B., & Ehr, D	Individual learning	CEO, top management team	Social learning theory (Bandura)	Survey	Supervisory support for safety was associated with fewer employee injuries at the individual level	*Journal of Applied Psychology*
2018	Rofcanin, Y., Las Heras, M., Bal, P. M., Van der Heijden, B. I., & Taser Erdogan, D	Individual learning	Servant leadership	Idiosyncratic deals (i-deals)	Survey	With managers possessing characteristics of servant leadership, subordinates are more likely to model and imitate their managers	*Human Relations*

Table 4.

Year	Authors	Type of learning	Type of leadership	Theory	Method	Results	Publisher
2019	Cooke, F. L., Wang, J., & Bartram, T	Individual learning	Supportive leadership	Theory of conservation of resources and social cognitive theory	Survey	Supportive leadership and co-worker support are positively associated with employee resilience – one of the positive emotions that will enhance employees' ability to cope in adverse conditions, such as work intensification, organisational change and work stress	*Applied Psychology: An International Review*
2019	Wellman, N., Newton, D. W., Wang, D., Wei, W., Waldman, D. A., & Lepine, J. A	Individual learning	Informal leadership, team task performance	Social learning theory (Bandura)	Survey	*Laissez faire* formal leaders are perceived by team members to engage in less modeling of effective leadership and, as a result, are negatively associated with informal leadership and team task performance	*Personnel Psychology*
2019	Xu, A. J., Loi, R., & Chow, C. W. C	Individual learning	LMX	Socially embedded model of thriving	Survey	Results suggest theoretical modifications to the existing thriving model and offer implications on the practical interventions that retailing organizations can take to develop a thriving workforce	*Human Resource Management*

Source: Authors' own work

Table 4.

is defined as change in behavior (Boekhorst, 2015; London & Smither, 1999; Manz & Sims, 1981), measurable variables such as level of specialization in tasks (Driver, 2002) or a perceived level of learning (Williams, Scandura, & Gavin, 2009). Manz and Sims (1981) suggested that learning is created by leaders modeling the actual desired behavior for employees and pointing out its consequences. London and Smither (1999) state that learning is individual behaviors that can be modeled by the leader but are nevertheless established as lessons learned by the individual himself. Authentic leadership theory exhibits behaviors such as self-awareness, transparency, listening and an internalized moral compass that influence learning (Boekhorst, 2015). Driver (2002) found that a leader's self-imposed or assigned learning role, or learning orientation, affected the follower's individual learning in the direction of that leaders learning orientation – either routine-based or innovation-based – as discussions took different forms. Williams *et al.* (2009) found that relational support from team leaders to team members with a focus on independence and a relationship to the work-related knowledge – strengthen the individual learning for employees in a team context. Winch and Ingram (2002) include individual meaning-making, developed through negotiation of leader and employee and through own actions in specific situations (Snoeren *et al.*, 2015), as an essential part of learning at workplaces. Through the actions that the individual perform in the situation, the individual creates new opportunities for understanding and action, which constitutes the learning. These studies conclude that organizational development programs that support personal meaning-making are effective for enhancing individual learning.

Learning according to Albert Bandura's *Social Learning Theory* (Bandura & Walters 1977) has in four of these studies been used to describe how the study in question viewed learning (Bouckenooghe, Zafar, & Raja, 2015; Rofcanin, Las Heras, Bal, Van der Heijden, & Taser Erdogan, 2018; Tucker, Ogunfowora, & Ehr, 2016; Wellman *et al.*, 2019). Learning according to social learning theory is defined as any type of change in the employee's behavior, as results of imitating a role models behavior (Rofcanin *et al.*, 2018). If the leader behaves with empathy and humility, the employees' attempts to imitate this leader increase, which leads to an increase in employee learning (Rofcanin *et al.*, 2018). When leaders behave ethically, which means a higher degree of shared goals between manager and employee, the employees' motivation to work increases, which leads to increased learning and improved performance (Bouckenooghe *et al.*, 2015).

Wellman *et al.* (2019) concluded that a so-called *laissez-faire* leadership, in which the leader constantly avoids acting and make decisions, leads to poorer learning among team members. This is explained by Wellman *et al.* (2019) stating that this poorer learning happens because these employees are not given the opportunity to imitate the manager's behavior when absent. Finally, Tucker *et al.* (2016) came to the conclusion that a CEO, through exemplary behavior and stated core values, affects other members' safety thinking in a management group, and that these management group members were shown to further influence other managers in the organization. Taken together, social learning theory through these studies suggests that learning takes place through different types of exemplary behavior from one role model to another individual in the workplace.

Three studies (Kacmar, Andrews, Harris, & Tepper, 2013; Pastoriza, Arino, & Ricart, 2008) focused on ethical leadership theory in this stream of studies and found that this type of leadership behaviors statistically have an impact on learning through mediators. For instance, Pastoriza *et al.* (2008) and Xu, Loi, and Chow (2019) came to conclusion that ethical leadership behavior leads to a relational closeness between manager and employee, which in turn strengthens learning into form of increased tendency to try new ideas and working methods (Xu *et al.*, 2019). According to Pastoriza, Arino, and Ricart (2008), true caring and a

genuine interest in the employees' personal development from the manager seems to learn employees to overcome self-interest and develop trust. Kacmar *et al.* (2013) focused on investigating the degree of helpful employee behaviors and degree of probability of promotion and found that ethical leadership behaviors had a statistically significant connection with these variables.

The fact that the leader acts supportively toward the employees also seems to be able to create increased learning among the employees, in the form of better emotional positive energy at work (Cooke *et al.*, 2019). Whether the manager is physically present in the workplace with the employees also seems to play a role in both employee work outcomes and actual employee work experience. Golden and Fromen (2011) concluded that physically present managers had superior results regarding factors such as work-related feedback, instruction, empowerment, professional development and workload than teleworking managers, even though both working types had physically present employees.

The data set contained eight studies (Table 5) that in different ways studied the leader's own learning process because of the leader's act of leadership. These studies define learning as individual and described as a process or as changes.

Argyris (1976) argues that to influence others effectively, the leader needs immediate and repeated training and learn about this own leadership influence and real business problems. Training also seems to have a positive impact on the learning of leaders (Lacerenza, Reyes, Marlow, Joseph, & Salas, 2017), as these researchers found clear changes in leaders knowledge or competence after training periods. Seibert (1999) also suggest that the leaders need to reflect in a simple way in real time on own actions, adding that the immediate work environment that leaders establish has a profound effect on leaders "reflection-in-action" and therefore on their learning at work. Ryan (2019) argues that managers who in their assigned working practice move between different organizations, drive their own learning through the expanded possibilities for interactions with actors situated in the other organization.

According to Raelin (2006), practice is intimately connected with learning and reflection because practice does not only describe what one does but also what one thinks about oneself and what others do. These claims find support in a study by Nicely, Palakurthi, and Gooden (2011), who found that the more a leader experienced taking work-related risks and making decisions, as even contrary to leaders' supervisor wishes and experienced a constant search for knowledge, the greater the level of perceived learning at work. Harman (2012) state that a leader is created through a plurality of forces constantly present in the work context, which during an ongoing process constructs and changes the identity. Roan and Rooney (2006) add that a leader is created in the work context and through inclusion/exclusion in various networks within the organization. These results also means that the person that a leader learns to be at work is also potentially open to redefinition.

Summary – individual learning

When summarizing it can be concluded that the influence of leaders on employees individual learning is exercised through three main themes found in these results which are role *modeling behavior, relational support and negotiation of meaning*. Studies that put forward the leader's own behavior as influencing the learning of employee's state that exemplary or inclusive behavior influences employees' attitudes and behaviors through modeling or imitating that leaders conduct. Relational support includes the leader showing confidence to the employee's abilities to learn and act, as well as encouragement leading to stronger relationships, which in turn supports the individual learning of employees. This learning is changes in attitudes and behavior, as well as increased emotional positive energy. If the leader in opposite display lack of confidence and/or are absent from the

Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
1976	Argyris, C	Leader's own learning	Leadership as effective influence	Theory in practice	Theoretical/ literature	Theory in practice, the learning process is a cycle that involves discovering the problem, inventing a solution (conceptual map), producing the invention (performing in terms of actual behavior) and generalizing what has been learned to other settings	Organizational Dynamics
1999	Seibert, K. W	Leader's own learning	Managers	Reflection-in-action	Interviews	Immediate work environment that bosses establish have a profound effect on their managers reflection-in-action	Organizational Dynamics
2006	Raelin, J	Leader's own learning	Facilitation as a method of leadership	The role of facilitation	Theoretical/ literature	Praxis facilitation can contribute to how to engage reflection to truly bridge the gap between theory and practice	Organizational Dynamics
2006	Roan, A. & Rooney, D	Leader's own learning	Leadership of women	Communities of practice, learning networks	Interviews	Women education managers reflexively assess and reassess goals and values to demystify knowledge and resolved cognitive dissonance in these processes. Moreover, this article shows that women participants learn from the networks, and that the networks learn from the participant in a reciprocal and informal way	Management Learning
2011	Nicely, A., Palakurthi, R., & Gooden, A. D	Leader's own learning	Hotel managers who report a high degree of work-related learning	Managerial learning, work-related learning	Survey	Managers who reported high work-related learning levels also reported high risk-taking abilities and more positive attitudes toward learning	International Journal of Contemporary Hospitality Management

(continued)

Table 5.
Studies studying the learning of the leader in work settings

Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
2012	Harman, K	Leader's own learning	Everyday learning of a manager	Foucauldian conceptualization of processes of subjectification	Interviews	Re-presenting workplace learners as active in the ongoing negotiation of identity, rather than only acted on by top-down forces	*Management Learning*
2017	Lacerenza, C. N., Reyes, D. L., Marlow, S. L., Joseph, D. L., & Salas, E	Leader's own learning	Leadership training	Leadership training programs	Theoretical/ literature	Leadership training is substantially more effective than previously thought, leading to improvements in reactions and results	*Journal of Applied psychology*
2019	Ryan, A	Leader's own learning	Managers	Liminality, inter-organizational relationships	Interviews	Liminality– temporary, transient or precarious work settings consider the efforts that managers make to set up and co-create the support structure they require to enter into and leave liminal experiences	*Human Relations*

Source: Authors' own work

Table 5.

workplace, studies show that this influences the learning of employees in a negative direction or that no individual learning in a wanted direction is created. Finally, the influence of leaders on employees' individual learning is exercised through negotiation of meaning between the leader and the employee. Learning is in these studies intrinsically woven with the individual's sense of personal meaning, which is influenced by the leader through negotiations. The learning of leaders is affected by the leader's own knowledge and attitude about learning, performed leadership training has been conducted, the actual work environment including the relationship between the leader and the leader's supervisor.

Leadership and team learning at the workplace

A total of 13 studies in the data set studied different types of leadership in relation to team learning concepts (Table 6). Edmondson (1999) found that coaching from a team leader contributes to improved team learning, as the team environment then to a greater extent is perceived as a safe place for risk-taking behavior between team members.

Schaubroeck, Carmeli, Bhatia, and Paz (2016) claimed that team coaching plays a crucial role in promoting team learning, and stronger relationships between team leaders and team members have been found to contribute to enhanced team learning (Brueller & Carmeli, 2011). Empowering leadership (Lorinkova, Pearsall, & Sims, 2013) is described as leaders' focus on learning processes, which enhances team reliability on these learned processes. In contrast, directive leaders can accomplish initial improvements in team task performance, but this task focus also leads to deterioration of team learning.

Kirkman, Rosen, Tesluk, and Gibson (2006) suggested that when the team has undergone some type of competence development effort, an experienced team leader creates more work-relevant competence than a non-experienced team leader. Performance management, which is the leader's demand for team goal-setting and achievement follow-up, is also suggested to stimulate teams' learning behavior (Gibson & Vermeulen, 2003), and that this effect is greater when the team's subgroups are either weak or very strong. Team learning in multi-team systems, when divergent perspectives on risk between planning leadership teams and executing component teams exist, have been suggested to encourage team learning (Lanaj, Foulk, & Hollenbeck, 2018). Mawritz, Mayer, Hoobler, Wayne, and Marinova (2012) found that abusive leadership behaviors in teams both positively and negatively impacts subordinates' behavior throughout an organization.

Charismatic leadership in teams (Knipfer, Schreiner, Schmid, & Peus, 2018) and ethical leadership behavior (Mo, Ling, & Xie, 2019) are leadership behaviors that have been suggested to positively impact team reflexivity, a concept closely related to team learning processes since this concept refers to a certain level at which team members openly reflect and communicate about the group's goals, strategies, decision-making and communication processes and adapt these to current or appreciated circumstances (Schippers, Den Hartog, Koopman, & Van Knippenberg, 2008). In contrast, self-serving leadership (Peng, Wang, & Chen, 2019), defined as any action that a leader performs to put one's own interests before both the needs of the team and the goals of the entire organization, has negative team learning outcomes such as lower levels of team creativity.

Summary – team learning

The influence of leaders exercised on team learning shows similarities with leaders' influence on individual learning in that leader's *exemplary behavior* and *strong relationships* are put forward as factors leading to increased learning in a team. Although studies about leaders' influence on team learning do not indicate that learning is influenced due to negotiation between leader and team member, they do suggest that team leader coaching

Year	Authors	Type of learning	Type of leadership	Theory	Method	Results	Publisher
1999	Edmondson, A	Team learning	Team leader coaching	Team psychological safety	Mixed	Team leader coaching (and other factors) shape learning behavior and team outcomes	*Administrative Science Quarterly*
2003	Gibson, C. & Vermeulen, F.	Team learning	Team external leader	Organizational learning theory (Argyris, Edmondson), Sociotechnical systems theory, team design theory	Mixed	Teams with moderate subgroups engage in more learning than teams without them	*Administrative Science Quarterly*
2006	Kirkman, B. L., Rosen, B., Tesluk, P. E., & Gibson, C. B.	Team learning	Leadership experience	Teams average training proficiency, technology support	Survey	Teams average training proficiency had a positive association when team leaders had longer levels of tenure with their specific team	*Journal of Applied Psychology*
2008	Schippers, M. C., Den Hartog, D. N., Koopman, P. L., & Van Knippenberg, D.	Team learning	Transformational leadership	Team reflexivity	Survey	Transformational leadership is related to the adoption of a shared vision by the team. This in turn relates to team reflexivity, which leads to higher team performance	*Human Relations*
2010	Gebert, D., Boerner, S., & Kearney, E.	Team learning	Team delegative/ directive leadership	Team innovation, team action strategies	Theoretical/ literature	Open action strategies (e.g. delegative leadership) promote knowledge generation, and closed action strategies (e.g. directive leadership) enhance knowledge integration. Each pole of a pair of opposing action strategies both energizes and detracts from elements of innovation	*Organization Science*
2011	Brueller, D. & Carmeli, A.	Team learning	LMX	Organizational learning theory (Argyris, Edmondson)	Survey	Intrateam and external high-quality relationships (HQRs), are related to psychological safety, which in turn facilitates learning processes; external HQRs are associated directly with team learning, team learning is positively associated with enhanced team performance	*Human Resource Management*
2012	Mawritz, M.B., Mayer, D. M., Hoobler, J. M., Wayne, S. J., & Marinova, S.V.	Team learning	Abusive managerial behavior	Social learning theory (Bandura)	Survey	Supervisors may model their superiors' positive leader behaviors; they may adopt negative leader behaviors as well	*Personnel Psychology*

(*continued*)

Table 6.
Studies on leadership influence on team learning

Year	Authors	Type of learning	Type of leadership	Theory	Method	Results	Publisher
2013	Lorinkova, N. M., Pearsall, M. J., & Sims Jr, H.P.	Team learning	Situational leadership	Team development, team adaptation	Experiment	Empowering leader to experience higher performance improvement over time because of higher levels of team learning	Academy of Management Journal
2016	Schaubroeck, J., Carmeli, A., Bhatia, S., & Paz, E.	Team learning	TLC	TLC behaviors, group leadership	Survey	TLC behaviors exhibited indirect, positive relationships with both team innovation effectiveness and team task performance through team learning	Human Relations
2018	Knipfer, K., Schreiner, E., Schmid, E., & Peus, C.	Team learning	Charismatic team leadership	Team reflexivity, boundary spanning behaviour	Survey	Charismatic team leadership predicted team and individual performance, both mediated by team reflexivity	Applied Psychology: An International Review
2018	Laraj, K, Foulk, T. A., & Hollenbeck, J.R.	Team learning	Leadership teams	Vertical convergence/ divergence of risk preferences in multiteam systems with divisional structures	Experiment	Divergent preferences for risk between leadership and component teams facilitates system learning in authority- differentiated multiteam systems	Academy of Management Journal
2019	Mo, S., Ling, C.-D., & Xie, X.-Y.	Team learning	Ethical leadership	Social learning theory (Bandura), antecedent–benefit–cost framework	Survey	Teams exhibited more creativity when there was a moderate level of ethical leadership than when there were very low or very high levels	Journal of Business Ethics
2019	Peng, J, Wang, Z., & Chen, X.	Team learning	Self-serving leadership	Social learning theory (Bandura)	Survey	Self-serving leadership not only reduced team psychological safety but also induced team knowledge hiding, both of which ultimately affected team creativity. The presence of high task interdependence buffered the destructive effect of self-serving leadership on team creativity through team psychological safety and the indirect effect through knowledge hiding	Journal of Business Ethics

Source: Authors' own work

Table 6.

(TLC) in general and team leaders' focus on learning specifically do influence team learning processes. One differing factor compared to studies aligned with individual learning is that team composition matters for leaders' possibilities to influence team learning. Leaders' influence on team learning is also in affect when the leader acts selfish and inappropriate; in those cases, team members develop mistrust toward the leader and each other and the team are perceived as a hostile work environment.

Discussion

Based on the analysis of the results, research about leadership influence on workplace learning has been developed to focus on the individual and group (team) level of learning. In line with the purpose of this review, outcomes are critically discussed with a focus on content, how learning is theorized, methods and future research directions.

Results from the interview-based studies regarding leaders' influence on individual workplace learning establishes workplace learning as a complex phenomenon which unknowingly occurs as a response to the individual's act of work (Snoeren *et al.*, 2015). Leadership influence on workplace learning is hence challenging to control, owing to the complexity of reality in which workplace learning is a high implicit and subjective process and outcome. In contrast to these results, the theoretical/literature-based studies in this review (London & Smither, 1999; Manz & Sims, 1981; Pastoriza *et al.*, 2008) claim that role modeling behaviors of the leader, described as theory-in-practice (Argyris, 1976) and potentially enhanced by praxis facilitation (Raelin, 2006), promote individual learning by encouraging self-development and achievement of organizational and personal goals. However, although the leader's ability to influence learning through own commitment (Rainbird & Munro, 2003), to help employees with goal setting and enabling a reflective practice with employees, can influence workplace learning positively (Matsuo, 2012), it cannot be stated that role modeling behavior solely influence workplace learning. Driver (2002) alternatively describes learning in an organizational context not only as individual specialization in learning tasks based on role behaviors but also as resources that constrain or facilitate learning opportunities. These learning opportunities are in turn negotiated in the workplace between managers and employees, which suggest that the quality in the leader–employee relationship, underlining the presence of relational support (Cooke *et al.*, 2019; Rofcanin *et al.*, 2018; Tucker *et al.*, 2016) have importance for individual workplace learning. The importance of role behaviors and relational support from the leader for individual workplace learning is advocated by several additional survey-based studies in this review. For instance, Williams *et al.* (2009) proposed a leadership method called team-level career mentoring (TCM) as promoting individual learning, and Kacmar *et al.* (2013) and Bouckenooghe *et al.* (2015) promoted ethical leadership behaviors as affecting individual learning in the form of increased levels of "helping and promotability" (Kacmar *et al.*, 2013) and "in role-job performance" (Bouckenooghe *et al.*, 2015) amongst employees. Role modeling behaviors are thus important, although the influence on workplace learning will also depend on negotiation processes and the current state of the relationship between the leader and the employee. Additionally, if managers do not enable learning (Sterling & Boxall, 2013), are absent from the workplace (Golden & Fromen, 2011) or act with an *laissez-faire* approach (Wellman *et al.*, 2019), this could affect workplace learning regarding employees negatively.

The theoretical/literature-based studies disregard that both leaders and employees can be regarded as active learners who negotiate their own identity to understand their place and position in the organization (Harman, 2012). Even if managers have the individual capacity and knowledge (Nicely *et al.*, 2011) to influence others to learn, the recipient of this

influence also need to possess a capacity to learn. Employee's level of maturity (Winch & Ingram, 2002) and self-efficacy (Sterling & Boxall, 2013) and actual learning capacity will also determine workplace learning outcomes. Workplace learning is thus bound to this continuous negotiation of meaning between individuals in the workplace, illuminating workplace learning as a social learning process dependent on the work, the work environment and the individuals involved. How leaders establish networks (Roan & Rooney, 2006), build relationships with their immediate supervisors (Seibert, 1999) and whether if engaged in inter-organizational temporary work settings (Ryan, 2019) also impact the characteristics of the leaders' own learning process and therefore the leaders' possibility to influence employees. Leadership influence on individual workplace learning is challenging to foresee and questionable to pursue, as outcomes are uncertain and are bound to the active learner's individual negotiation of meaning in the actual work context. However, a strive toward enabling workplace learning is commendable as the opposite, to neglect or not regard the individual as an active learner of value, would presumably create workplaces with no regard for individual development. In support of workplace learning enhancement, Lacerenza *et al.*'s (2017) study highlighted the value of leadership training programs, which ultimately could result in leaders' improved capacity to provide relational support to employees and insight of the value of role modeling behaviors for workplace learning development.

Results from the studies on leadership influence on team learning further strengthens the analysis that leader role modeling behavior, relational support and negotiation of meaning constitutes factors of importance when searching to understand leadership influence on workplace learning, for both individuals and teams. In support of this analysis, the results from Edmondson (1999) and Schaubroeck *et al.*'s (2016) studies indicated that TLC promotes team learning processes. TLC can be stated to include role modeling behavior, relational support and a negotiation of meaning between the leader and the employee team member. Also, role modeling behavior can impact team learning both positively (Knipfer *et al.*, 2018; Schippers *et al.*, 2008) and negatively (Mawritz *et al.*, 2012). The importance of relational support (Brueller & Carmeli, 2011) in forming strong relationships for increased possibility for leadership influence on team learning processes is also underlined by data set results. However, regarding leadership influence on workplace learning in teams, the additional aspects of team membership, subgroups (Gibson & Vermeulen, 2003) and team shared responsibility for a mutual product or service (Carton & Cummings, 2012; Salas *et al.*, 2008; Sundstrom *et al.*, 1990) put additional requirement on the leader to display exemplary behaviors and ability to form strong relationships with team members. One aspect is the length of experience that the leader has worked with a team (Kirkman *et al.*, 2006), that in a team context possibly is of greater importance than leaders' influence on individual learning. Lorinkova *et al.* (2013) suggest, in support of this notion, that a leader who acts supportive and encouraging to learning experience higher levels of team learning over time.

The concept of learning is generally bound to values and valuations, and the understanding of learning is dependent on what theoretical perspective that is used (Säljö, 2014). No single definition of learning can serve all scientific purposes, and pragmatic reasons often lie behind disciplines' differing definitions of this complex concept (Barron *et al.*, 2015). This implies that studies define or applicate the learning concept depending on their reasons for conducting the study. The view on learning differs with the purpose of the study which is visible in the 13 studies on team learning in this review, applicating various leadership theories and concepts in relation to learning concepts using mostly survey, experiment or theoretical reasoning. Two studies (Edmondson, 1999; Gibson & Vermeulen,

2003) used a mixed method design consisting of interviews although mostly relying on survey data collection. Team learning is implied as knowledge acquisition, as a cognitive entity, as happening when humans acquire, process and combine information (Säljö, 2014). This cognitive view of learning also imply that learning can be measured and collected, and this is the logic behind these studies using mostly hypothesis-testing and controlled/experimental designs. Scrutinizing the overall review material including leadership–team learning and leadership–individual learning studies, the dominance of a cognitive perspective of learning is apparent. Of the 27 selected leadership–individual learning studies, 18 studies used quantitatively based study designs of which 11 were survey-based and 7 were theoretical/literature-based. One study (Matsuo, 2012) used a mixed method design using both interviews and survey. Learning view in these leadership–individual learning studies seems to depend on what entity the study set out to investigate, such as focusing on the managers or the theoretical leadership construct. If the study sets out to investigate an certain leadership theory such as leader–member exchange (LMX) in relation to an individual learning construct using surveys (Driver, 2002), the study implied an cognitive perspective of learning. In contrast, if a study focused on managers behaviors using interviews as a qualitative method to investigate managerial commitment to workplace learning (Rainbird & Munro, 2003), these studies imply a pragmatic view of learning, meaning learning is viewed as a practical solution that evolves as results of human problem-solving efforts (Säljö, 2014). For the eight leadership–individual learning studies applying interviews as method, including one study with an mixed method design (Matsuo, 2012), these studies were interested in the communication and interaction of managers and employees (Harman, 2012; Raelin, 2006; Roan & Rooney, 2006; Ryan, 2019; Snoeren *et al.*, 2015; Winch & Ingram, 2002). Learning view is implied in a sociocultural tradition, in which learning is viewed as happening when humans become involved in knowledge and experiences through interplaying with others in various activities (Säljö, 2014). Knowledge is in a sociocultural view of learning not transferred between people but is something that humans participate in. Noteworthy is that the four studies that defined leadership-workplace learning of individuals as their focus of interest (Matsuo, 2012; Rainbird & Munro, 2003; Snoeren *et al.*, 2015; Sterling & Boxall, 2013) used mainly an interview-based methodology. The remaining 23 leadership-individual learning studies defined individual learning in the workplace with other definitions than workplace learning.

The dominance of an implicit cognitive view on learning in this field becomes clear with 77.5% ($n = 31/40$) of studies implying either a cognitive view of learning ($n = 23/40$) or pragmatic view of learning ($n = 8/40$). The underlying assumption of learning in the reviewed studies is not problematized, which creates special opportunities for future critical studies in this research area.

Future research paths
As there is a clear dominance ($n = 29/40$) of research fully relying on self-reported or theoretically derived information in this review, future research should address this issue to improve the trustfulness and applicability of research results. There is firstly a lack of longitudinal data which makes it difficult to say whether for instance high levels of measured workplace team learning is linked to team leader activities in a prior period. Or what type of individual workplace learning a leader with a positive attitude and support for learning can contribute with over time. It is still unclear if team learning is enhanced by empowering or supportive leadership or if team learning is high because of high team performance.

The second aspect with self-reported information is that the validity and comparability of results are obstructed by the fact that measures for the key dependent variable (i.e. team learning, employee resilience, employee outcomes, workplace learning), independent variables (i.e. leadership in teams, servant leadership, charismatic leadership) and intermediating variables in between dependent and independent variables, e.g. team psychological safety (Edmondson, 1999) vary significantly. The research community should initiate a discussion about this issue. The use of different definitions and measures impedes comparison, and clear definitions could harmonize efforts across studies to come and add to an ongoing discussion about how non-observable phenomena is described in research.

The results from this review have shown that leader's relational support, leader's role modeling behavior and leader–employee negotiation of meaning have importance for individual workplace learning. These conclusions are supported by leadership–team learning research in that the leader's exemplary behavior and presence of strong relationships are put forward as factors leading to increased team learning. However, this line of research is mostly based on the assumption on learning as a cognitive entity. Future studies should assume a sociocultural view of learning, bringing forth empirical cases illuminating how the leader–employee relationship is formed in practice, what factors that influence the quality of this interaction and what differences in workplace learning that can be found comparing different manager–employee relationships of various quality. Also, future research should examine the presumably positive effects of applying personalized work agreements between leaders and employees, as well as the effects of leadership training programs for leader's abilities to influence learning at the workplace. Another interesting research path is to follow the results in that TLC seems to have positive effects on team learning, by investigating whether TLC is a generally applicable leadership method and/or if this leadership method is suitable or functional in different forms of teams, e.g. mounting teams, project development teams or management teams. Additional knowledge about the effects of TLC on team members and in what type of teams that coaching have the most effect on team learning would be valuable for organizational leaders that seek to develop their teams.

Future research should generally use a plurality of methods to "show how the same phenomenon is experienced and viewed from a plurality of viewpoints and perspectives" (Bonache, 2021, p. 6). Considering the dominance of quantitative methods and a cognitive view of learning in this field, actual observations by researchers in several "hinterlands" (Korica, Nicolini, & Johnson, 2017) are needed to add perspectives leading to deeper insights. However, regarding work and work context impact on leader's possibilities to influence workplace learning, quantitative studies are entirely absent. Work and work context leadership–workplace learning studies could benefit from future quantitative studies and additional case studies to build knowledge how different work tasks and work contexts influence the leader–employee relationship and/or leader's agency to provide relational support.

Practical implications
The results of the review indicate certain ideals for policymakers and leaders to pursue in a strive to enhance the desirable learning aspect. Organizations can not only enable team learning and improve team outcomes by developing their team leader's competencies in coaching (Edmondson, 1999) but also develop their competitive advantage in a sustainable way by carefully forming and shaping teams in which team members are different yet able to form subgroups (Gibson & Vermeulen, 2003) with peers. TLC specifically seems to have a general positive influence on team learning, although this influence will vary depending on how the team is composited. However, if acknowledging that the individual is ultimately in the center for their learning, one implication is that all that a learning and development strategy can strive

for is to create as good work environment as possible, provide timely appropriate resources and provide adequate coaching and support (Winch & Ingram, 2002). To strengthen leadership influence on workplace learning beyond ideal policy, one possible path could be to actually support encouragement of personalized work arrangements between leader and employees (Rofcanin *et al.*, 2018). Also, to improve leadership competence with appropriately designed leadership training programs, with a focus on need analysis and behavior training have proved effective (Lacerenza *et al.*, 2017). This review supports such initiatives, as the analysis suggest that leaders role modeling behavior or exemplary behavior, leaders' competence to provide employee relational support and build strong relationships are important in developing workplace learning. Also, as the analysis also highlights the importance of negotiations of meaning in learning processes, different forms of personalized work agreements can offer arenas in which these processes are given opportunity to develop.

Conclusion

This review complements and expands previous literature reviews in the field of leadership and workplace learning research, by offering a knowledge compilation of the research field, a problematization of the underlying assumptions of learning-view in the reviewed studies and an analytical synthesis of the collected results. Statistical methods are in clear dominance in the reviewed studies with only 8 of 40 articles using a qualitative methodology. Individual learning and team-level learning are the learning levels that mainly attract attention in this research field. In similarity with Lundqvist, Wallo, Coetzer, and Kock (2023), this review ascertains that selected studies that applied a quantitative methodology ($n = 31/40$) also found statistically significant relationships between different types of leadership and learning constructs at the individual and group level. Longitudinal and qualitative research is scarce which accentuates future research-oriented toward real-life working situations creating vivid narratives with potential to expand theory and inform practice in relevant ways. In addition to Lundqvist, Wallo, Coetzer, and Kock (2023), this review contributes with additional problematization of the research area by exposing the underlying dominating assumption of a cognitive tradition of learning-view in this line of research, further accentuating the need to pursue research based on an sociocultural view of learning. This review also provides synthesis that the concepts of role modeling behavior, relational support and negotiation of meaning are of importance when explaining how leadership influence the workplace learning of individuals. Increased team learning as results of leadership influence can in similarity be explained by leaders' exemplary behavior and the presence of strong relationships.

Even if this review shows that leaders can influence the employees at a workplace through their own conduct and communication, contextual factors such as work requirements, current and historical workplace relationships and previous learning experiences and learning abilities cannot be disregarded as potentially encouraging or hindering. However, a strive to increase positive workplace learning is a great task for organizational leaders (Matsuo, 2012; Yukl, 2009), and further knowledge expansion in this field is essential for both practitioners and the research community.

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Corresponding author
Fredrik Hillberg Jarl can be contacted at: fredrik.hillberg-jarl@hv.se

Appendix 1. Keyword combination
Leadership or leader[*] or manager[*] or director[*] or executive[*]
/AND
workplace learning or work-based learning or WPL or workplace-based learning

Appendix 2

	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
1	1976	Argyris, C.	Leader's own learning	Leadership as effective influence	Theory in Practice	Theoretical/ Literature	Theory in Practice, the learning process is a cycle that involves (1) discovering the problem, (2) inventing a solution (con-ceptual map), (3) producing the invention (performing in terms of actual behavior), and (4) generalizing what has been learned to other settings.	Organizational Dynamics
2	1981	Manz, C. C. & Sims Jr, H. P.	Individual Learning	Managerial Modeling/public rewarding	Antecendent Learning - Social Learning Theory (Bandura)	Theoretical/ Literature	Managers need to use modeling effectively to enhance the achievement of organizational and personal goals. In particular, attention should be given to day-to-day modeling as well as to formal training to effect organizational behavior changes.	Academy of Management Review
3	1999	London, M. & Smither, J.W.	Individual Learning	Managers	Deci's self-determination model of intrinsically motivated behavior	Theoretical/ Literature	Shows how organizations can encourage self-development by providing nonthreatening performance feedback, ensuring behavioral choices for learning, encouraging feedback seeking, and rewarding participation in learning activities and other self-determined behavior.	Human Resource Management
4	1999	Edmondson, A.	Team Learning	Team leader coaching	Team psychological safety	Mixed	Team leader coaching (and other factors) shape learning behavior and team outcomes.	Administrative Science Quarterly

Table A1.
Final data selection

Table A1.

	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
5	1999	Seibert, K. W.	Leader's own learning	Managers	Reflection-in-action	Interviews	Immediate work environment that bosses establish have a profound effect on their managers reflection-in-action	Organizational Dynamics
6	2002	Driver, M.	Individual Learning	Leader–member exchange (LMX)	Social exchange theory - a model of learning in organizations	Survey	The model postulates that individuals in organizations accomplish learning by specializing in certain learning tasks. This specialization is based on role behaviors and resources that constrain or facilitate learning opportunities negotiated in the workplace between subordinates and their superiors.	Management Learning
7	2002	Winch, A. & Ingram, H.	Individual Learning	Leadership Maturity Framework (LMF)	Action Learning,	Interviews	action learning has real power to make personal sense of learning in the workplace, but that learning effectiveness will depend on the individual's level of maturity. a model of leadership maturity in which individual learners discern personal meaning from events around them.	International Journal of Contemporary Hospitality Management
8	2003	Gibson, C. & Vermeulen, F.	Team Learning	Team external leader	Organizational learning theory (Argyris, Edmondson), Sociotechnical systems theory, team design theory.	Survey	Teams with moderate subgroups engage in more learning than teams without them.	Administrative Science Quartely

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	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
9	2003	Rainbird, H. & Munro, A.	Individual Learning	Managers	Manual/Routine jobs, Workplace Learning,	Interviews	Even where the organisation's positive approach to workplace learning is reflected in managerial commitment, there may still be barriers to the participation of individuals or groups of staff.	Human Resource Management Journal
10	2006	Kirkman, B. L., Rosen, B., Tesluk, P. E., & Gibson, C. B.	Team learning	Leadership experience	Teams average training proficiency, technology support	Survey	Teams average training proficiency had a positive association when team leaders had longer levels of tenure with their specific team	*Journal of Applied Psychology*
11	2006	Raelin, J.	Leader's own learning	Facilitation as a method of leadership	The role of facilitation	Theoretical/ literature	Praxis facilitation can contribute to how to engage reflection to truly bridge the gap between theory and practice	*Organizational Dynamics*
12	2006	Roan, A. & Rooney, D.	Leader's own learning	Leadership of women	Communities of practice, learning networks	Interviews	Women education managers reflexively assess and reassess goals and values to demystify knowledge and resolved cognitive dissonance in these processes. Moreover, this article shows that women participants learn from the networks, and that the networks learn from the participant in a reciprocal and informal way	*Management Learning*

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Table A1.

	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
13	2008	Pastoriza, D., Arino, M. A. & Ricart, J. E.	Individual learning	Ethical managerial behaviour	Organizational social capital	Theoretical/ literature	Managers behaviour should be based on three principles: following exemplary behaviour, helping the employees to value the consequences of their actions in other persons and not betraying employees' trust. When the manager conforms to these principles, he can ease the process through which employees develop associability and identification-based trust with the firm	*Journal of Business Ethics*
14	2008	Schippers, M. C., Den Hartog, D. N., Koopman, P. L., & Van Knippenberg, D.	Team learning	Transformational leadership	Team reflexivity	Survey	Transformational leadership is related to the adoption of a shared vision by the team. This in turn relates to team reflexivity, which leads to higher team performance	*Human Relations*
15	2009	Williams, E. A., Scandura, T. A., & Gavin, M.	Individual learning	Supervisors TCM	Team-level LMX, peer mentoring and proactive member behavior	Survey	TCM had a positive effect on individual team-source learning and had mediating effects on the relationships between the team contextual factors and individual team-source learning	*Human Relations*

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	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
16	2010	Gebert, D., Boerner, S., & Kearney, E.	Team learning	Team delegative/directive leadership	Team innovation, team action strategies	Theoretical/literature	Open action strategies (e.g. delegative leadership) promote knowledge generation, and closed action strategies (e.g. directive leadership) enhance knowledge integration. Each pole of a pair of opposing action strategies both energizes and detracts from elements of innovation	*Organization Science*
17	2011	Brueller, D. & Carmeli, A.	Team learning	LMX	Organizational learning theory (Argyris, Edmondson)	Survey	Intrateam and external HQRs are related to psychological safety, which in turn facilitates learning processes; external HQRs are associated directly with team learning; team learning is positively associated with enhanced team performance	*Human Resource Management*
18	2011	Golden, T. D. & Fromen, A.	Individual learning	Managerial work modes	Work experience, work outcome	Survey	In comparison to subordinates with managers in a traditional work mode, work experiences and outcomes are generally less positive for subordinates with teleworking managers who spend a portion of the week away from the office, and they are lower as well for subordinates with virtual managers who are away from the office full time. These results differ based on the subordinate's own work mode	*Human Relations*

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Table A1.

	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
19	2011	Nicely, A., Palakurthi, R., & Gooden, A. D.	Leader's own & learning	Hotel managers who report a high degree of work-related learning	Managerial learning, work-related learning	Survey	Managers who reported high work-related learning levels also reported high risk-taking abilities and more positive attitudes toward learning	*International Journal of Contemporary Hospitality Management*
20	2012	Matsuo, M.	Individual learning	Leadership of learning, nursing manager	Reflective practice, transformational leadership, workplace learning	Mixed	Reflective practice combined with goal setting and social learning promotes workplace learning	*Management Learning*
21	2012	Mawritz, M. B., Mayer, D. M., Hoobler, J. M., Wayne, S. J., & Marinova, S. V.	Team learning	Abusive managerial behavior	Social learning theory (Bandura)	Survey	Supervisors may model their superiors' positive leader behaviors; they may adopt negative leader behaviors as well	*Personnel Psychology*
22	2012	Harman, K.	Leader's own learning	Everyday learning of a manager	Foucauldian conceptualization of processes of subjectification	Interviews	Re-presenting workplace learners as active in the ongoing negotiation of identity, rather than only acted on by top down forces	*Management Learning*
23	2013	Lorinkova, N. M, Pearsall, M. J., & Sims Jr, H. P.	Team learning	Situational leadership	Team development, team adaptation	Experiment	Empowering leader to experience higher performance improvement over time because of higher levels of team learning	*Academy of Management Journal*
24	2013	Kacmar, K. M., Andrews, M. C., Harris, K. J., & Tepper, B. J.	Individual learning	Ethical leadership	Social exchange theory, UMT, POP	Survey	Perceptions of organizational politics fully mediated the relationship between perceptions of ethical leadership and helping and promotability ratings. In addition, political skill was found to moderate the direct and indirect effects	*Journal of Business Ethics*

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Table A1.

	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
25	2013	Sterling, A. & Boxall, P.	Individual learning	First-line managers	Ability–motivation–opportunity framework	Interviews	Deeper learning has yet to take hold where production pressures are high, line managers are not enabling and workers lack self-efficacy because of low literacy	*Human Resource Management Journal*
26	2015	Boekhorst, J. A.	Individual learning	Authentic leadership	Social cognitive theory (Bandura), social information processing theory	Theoretical/ literature	Authentic leaders and followers who share cooperative goals related to developing a climate for inclusion can prompt the vicarious learning of inclusive behaviors by followers	*Human Resource Management*
27	2015	Bouckenooghe, D., Zafar, A., & Raja, U.	Individual learning	Ethical leadership	Social learning theory (Bandura)	Survey	Ethical leadership has a positive effect on followers' in-role job performance, yet this effect is explained through the role of psychological capital and follower–leader goal congruence, providing evidence of mediation.	*Journal of Business Ethics*
28	2015	Snoeren, M. M., Niessen, T. J., & Abma, T. A.	Individual learning	Managers	Work-related learning	Interviews	The case illustrates that learning in and through work is predominantly an embodied and responsive phenomenon that usually occurs implicitly while acting	*Management Learning*
29	2016	Schaubroeck, J., Carmeli, A., Bhatia, S., & Paz, E.	Team learning	TLC	TLC behaviors, group leadership	Survey	TLC behaviors exhibited indirect, positive relationships with both team innovation effectiveness and team task performance through team learning	*Human Relations*
30	2016	Tucker, S., Ogunfowora, B., & Ehr, D.	Individual learning	CEO, top management team	Social learning theory (Bandura)	Survey	Supervisory support for safety was associated with fewer employee injuries at the individual level	*Journal of Applied Psychology*

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	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
31	2017	Lacerenza, C. N., Reyes, D. L., Marlow, S. L., Joseph, D. L., & Salas, E.	Leader's own learning	Leadership training	Leadership training programs	Theoretical/literature	Leadership training is substantially more effective than previously thought, leading to improvements in reactions and results	*Journal of Applied psychology*
32	2018	Knipfer, K., Schreiner, E., Schmid, E., & Peus, C.	Team learning	Charismatic team leadership	Charismatic team Team reflexivity, boundary spanning behaviour	Survey	Charismatic team leadership predicted team and individual performance, both mediated by team reflexivity	*Applied Psychology: An International Review*
33	2018	Lanaj, K., Foulk, T. A., & Hollenbeck, J. R	Team learning	Leadership teams	Vertical convergence/divergence of risk preferences in multiteam systems with divisional structures	Experiment	Divergent preferences for risk between leadership and component teams facilitates system learning in authority-differentiated multiteam systems.	*Academy of Management Journal*
34	2018	Rofcanin, Y., Las Heras, M., Bal, P. M., Van der Heijden, B. I., & Taser Erdogan, D.	Individual learning	Servant leadership	Idiosyncratic deals (i-deals)	Survey	With managers possessing characteristics of servant leadership, subordinates are more likely to model and imitate their managers	*Human Relations*
35	2019	Mo, S., Ling, C.-D., & Xie, X.-Y.	Team learning	Ethical leadership	Social learning theory (Bandura), antecedent–benefit–cost framework	Survey	The teams exhibited more creativity when there was a moderate level of ethical leadership than when there were very low or very high levels	*Journal of Business Ethics*

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Table A1.

	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
36	2019	Peng, J., Wang, Z., & Chen, X.	Team learning	Self-serving leadership	Social learning theory (Bandura)	Survey	Self-serving leadership not only reduced team psychological safety but also induced team knowledge hiding, both of which ultimately affected team creativity. The presence of high task interdependence buffered the destructive effect of self-serving leadership on team creativity through team psychological safety and the indirect effect through knowledge hiding	*Journal of Business Ethics*
37	2019	Ryan, A.	Leader's own learning	Managers	Liminality, inter-organizational relationships	Interviews	Liminality – temporary, transient or precarious work settings consider the efforts that managers make to set up and co-create the support structure they require to enter into and leave liminal experiences	*Human Relations*
38	2019	Cooke, F. L., Wang, J. & Bartram, T.	Individual learning	Supportive leadership	Theory of conservation of resources and social cognitive theory	Survey	Supportive leadership and co-worker support are positively associated with employee resilience – one of the positive emotions that will enhance employees' ability to cope in adverse conditions, such as work intensification, organisational change and work stress	*Applied Psychology: An International Review*

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Table A1.

	Year	Authors	Type of learning	Leadership	Theory	Method	Results	Publisher
39	2019	Wellman, N., Newton, D. W., Wang, D., Wei, W., Waldman, D. A., & Lepine, J. A.	Individual learning	Informal leadership, team task performance	Social learning theory (Bandura)	Survey	*Laissez-faire* formal leaders are perceived by team members to engage in less modeling of effective leadership and, as a result, are negatively associated with informal leadership and team task performance	*Personnel Psychology*
40	2019	Xu, A. J., Loi, R. & Chow, C. W. C.	Individual learning	LMX	Socially embedded model of thriving	Survey	Results suggest theoretical modifications to the existing thriving model and offer implications on the practical interventions that retailing organizations can take to develop a thriving workforce	*Human Resource Management*

Source: Authors' own work

Table A1.