

(Re) Interpreting Action, Learning, and Experience: Integrating Action Learning and Experiential Learning for HRD

Roland K. Yeo, Michael J. Marquardt

This article provides a comparative analysis and critique of action learning (AL) and experiential learning (EL), identifying emerging conceptual perspectives that contribute to human resource development (HRD). By integrating AL and EL, we gain a deeper understanding of action, learning, and experience, and how they are enacted based on the interplay of contextual, experiential, and action orientations. Through an integrative framework, we demonstrate that the interplay of cognition, behavior, and context offers insight into how and why learning occurs at multiple levels. The framework also recognizes the underlying dialectical forces that both reinforce and contradict schema selection and action framing. Tensions that facilitate and inhibit the grasping and transformation of experience create the context for actors to translate 'knowing' into 'becoming'. Critical pathways that connect different phases of the learning cycle into coherent patterns of organizing offer some implications for HRD research and practice.

Keywords: action learning, experiential learning, context, critical reflection, mental models, HRD

Introduction

Organization members are expected to learn continuously but many are often not aware of how learning actually occurs (Marsick & Watkins, 1990; Raelin, 2000), why they experience learning differently from each other (Fenwick, 2003a; Kolb, 1984), and what actions follow from learning in

different contexts (Dewey, 1938; Revans, 1980). The purpose of this article is to explore some of these issues and propose an integrative perspective of action, experience, and learning by examining the relationship between action learning (AL) and experiential learning (EL). These two learning processes are chosen for several reasons. Firstly, the extant literature has not made much explicit attempt in examining the relationship between AL and EL despite their individual contribution to HRD research and practice. Secondly, there are misconceptions of the two processes that could be realized if a deeper analysis of their interrelation were considered. Thirdly, they could complement one another to help us understand how learning occurs within and across contexts.

Both AL and EL have long been well researched; however, there is a lack of consensus on their clarity in terms of how they operate in organizational contexts and contribute towards organizational success (e.g. Brook et al., 2012; Reynolds, 2009). While AL has been criticized for the lack of attention given to human emotion and power relations that could lead to learning 'inaction' (e.g. Trehan & Pedler, 2010; Vince, 2008), EL has been regarded as a passive and inward-looking process (e.g. Kayes, 2002; Seaman, 2008). The theoretical position of this article is therefore to offer a deeper understanding of the concepts of action, learning, and experience, particularly how they operate at different levels in organizations, by comparing, contrasting, and critiquing these two learning processes. In doing so, the article aims to develop an integrative framework that illustrates the interplay of action, learning, and experience that offers potential contribution to HRD research and practice. The article therefore addresses the following questions:

1. How does the relationship of AL and EL contribute to a deeper understanding of action, learning, and experience?
2. What are the implications of an integrated framework of action, learning, and experience for HRD research and practice?

In answering the two questions, the article makes three contributions to the learning literature. First, it demonstrates a clearer understanding of context that facilitates and enables AL and EL, illuminating the process of action, learning, and experience as operating at multiple levels. Comparing and contrasting AL and EL helps us to see the workings of action, learning, and experience as individual and intertwined processes in context. Critiquing AL and EL further helps us to realize what AL and EL are not, and how the underlying processes of action, learning, and experience could be integrated to account for learning as occurring in different contexts. Current literature views AL and EL in isolation without exploring how one could potentially contribute to the understanding of the other in wider contexts.

Second, the article proposes an integrative framework of action, learning, and experience by not privileging either AL or EL; rather, this framework

offers a deeper understanding of cognition, behavior, and context in relation to learning based on three orientations, namely *contextual orientation*, *experiential orientation*, and *action orientation*. These orientations serve as conduits that connect 'knowing' and 'becoming' based on context (e.g. Clegg et al., 2005; Orlikowski, 2002), cognition and behavior based on experience (e.g. Fenwick, 2003a; Kolb, 1984), and 'self' and 'others' based on action (e.g. Dewey & Bentley, 1949; Revans, 1998). Current literature has not sufficiently dealt with the interplay of action, learning, and experience in relation to cognition, behavior, and context to account for learning as occurring at multiple levels in organizations (see Yeo & Gold, 2011).

Third, the proposed framework offers potential insights for HRD research and practice by focusing on action, learning, and experience as occurring through daily organizational activities rather than activities specific to learning sets in AL (e.g. Marquardt, 2011; Pedler, 2002) and management education activities in EL (e.g. Kolb & Kolb, 2009a; Vince, 2009). This framework recognizes the tensions during cognitive and behavioral participation, triggered by direct and indirect understanding of a context as well as the inward and outward search for reality. Current HRD research lacks a deeper and more holistic understanding of action, learning, and experience occurring at the individual, group, and organizational level.

Taken together, this article is the first in the HRD literature that explores the relationship between AL and EL to offer an integrative framework that links action, learning, and experience to cognition, behavior, and context in theorizing learning as occurring in multiple levels and contexts.

The article is organized as follows: First, we provide the definitions of the key concepts with emphasis given to 'context'. Context influences the way individuals view their capacity to learn, manage their learning process to improve specific tasks, and enhance knowledge exchange (Lave & Wenger, 1991). Second, we provide an overview and a comparative analysis of AL and EL. Third, we delve into the critiques of the two learning processes to explore commonly-missed theoretical features that could integrate AL and EL into a coherent HRD perspective. Fourth, we present an integrative framework of action, learning, and experience. Fifth, we conclude with implications for HRD research and practice, and outline some possible directions for future research.

Theoretical Background

Learning

We begin with the epistemology of learning as a process of both cognitive and behavioral participation. Cognitive participation involves learners' utilization of their frames of references based on prior experience (Argyris, 1982) to form specific mental models that help them develop action patterns (Senge, 1990). On the other hand, behavioral participation involves learners connecting their

roles to the social context to gain a wider perspective of how different stimuli affect their learning (Cook & Brown, 1999). Both cognitive and behavioral participation help learners to make sense of learning based on content and motivation (Illeris, 2007). Content involves the knowledge gained affecting learners' skills and abilities in acquiring it, while motivation involves attitude, emotion, and interactional dynamics that influence the cognition and behavior of learners. Kolb (1983) links cognitive and behavioral participation to the transformation of experience by intention and extension, the former referring to an inward participation through reflection and observation and the latter to an outward participation through action and experimentation.

Action

Action can manifest itself in cognitive and behavioral forms. As a cognitive participation, action can be seen as a conceptualization process to which knowledge formulation is central (Gherardi, 2001). In addition, action at the cognitive level involves the reflection on and interpretation of one's surroundings influencing their capacity for problem solving (Yeo & Nation, 2010). On the other hand, as a behavioral participation, action is a type of situated practice based on the transitory performance of individuals (Brown et al., 1989) during which abstract conceptualization is translated into concrete experimentation within a particular context (Kolb, 1984). Action patterns are therefore intertwined in learning processes during analytic activities where individuals engage in problem solving (Marquardt et al., 2009). Kolb (1983) relates the EL cycle to problem management processes where individuals involve in situation, problem, solution, and implementation analysis, a process similar to Revans' (1998) Systems Alpha, Beta, and Gamma involved in the preparation, execution, and evaluation of action patterns.

The action orientation of AL and EL could further be explained through Dewey and Bentley's (1949) self-action, inter-action, and trans-action. These action-oriented patterns involve the 'self' as one controls one's participation boundaries as well as 'others' as one interacts with one's surroundings to connect meanings through sensemaking (Weick et al., 2005). Action orientation through 'self' and 'otherness' increases the transformation of experience through intention and extension (Kolb, 1983), as individuals engage in the reflective and organizing processes of translating control (self-action) into emancipation triggered by emotional and relational stimuli (inter-action and trans-action) (Dewey, 1938; Rigg & Trehan, 2004). The interplay of cognitive and behavioral participation also relates to the critical perspective of learning where 'inaction' could be caused by emotional stress and extreme power relations (Vince, 2008).

Experience

Extending Dewey's (1938) influence on AL and EL, it is important to highlight his interpretation of experience to understand how it applies to organizational

practice. Dewey suggested that experience could be 'miseducative' if it is of a negative nature as it could affect one's attitude leading to a lack of responsiveness and sensitivity towards one's surroundings. A prior experience could also affect a subsequent experience and lead to specific learning outcomes. Experiences themselves could also be disconnected causing disjunctions in learning continuity, affecting the scope and depth of the knowledge gained (Kolb & Kolb, 2009a). Dewey further argued that experience creates the context for individuals to produce action that could be controlled (self-action) and cooperated with others (inter-action) to elevate to a new level of experience (trans-action).

Experience is embedded and accumulated in practice through ongoing 'becoming' (Clegg et al., 2005) as individuals attach meanings to a particular context based on their own values and perception of the underlying dynamics, giving rise to frameworks of 'knowing' (Rigg, 2008). Such knowing triggers a new level of cognitive and behavioral participation as individuals organize meanings through dialogue and feedback that help shape their subsequent action patterns (Cook & Brown, 1999). When they begin to experiment doing things differently, they engage in the interplay of action patterns that transforms processes of organizing into 'becoming' (concrete experience) (Collin, 2004; Kolb & Kolb, 2009b).

Context

Learning should be framed in context as the occurrence of learning is shaped by enactments of organizing influenced by contextual stimuli (Yeo & Gold, 2011). Context therefore provides the perceptual and cognitive boundaries to help individuals structure and organize their reality, making them feel secure (Edmondson, 1999) and motivating them to develop meaningful relationships (Raelin, 2000). Context encompasses organizational elements such as tasks, tools including technology and language, and actors who deploy relevant tools to fulfill their tasks (Argote & Spektor-Miron, 2011). Understanding context helps individuals and groups to increase their capacity for action (Yeo & Nation, 2010). These elements integrate to serve as contextual stimuli and provide the platform for individuals to interpret their roles, task significance, and social influence (Weick et al., 2005). In turn, contextual stimuli shape the meanings and structures of learning to the extent that new action patterns are created to meet organizational objectives increasing the systemic capacity for organizations to develop and transform (Rigg, 2008). Context therefore serves as a conduit to facilitate the interplay of cognitive and behavioral participation allowing individuals to reflect, observe, conceptualize, and experiment seen in AL and EL (Kolb & Kolb, 2005; Peddler, 1997). Extending Kolb's (1983) problem management perspective, context provides the external stimuli to help individuals transform their experience by intention and extension according to the way they think, feel, and act.

Human Resource Development

Our understanding of action, experience, learning, and context is important for framing an integrative perspective of learning relevant to HRD. This perspective echoes Lee's (2001) and Roth's (2004) call for relying on one's own experience to engage in the work of HRD. We define HRD as a holistic learning approach which leads to an action-oriented change operating at the individual, group, and organizational level (see Swanson, 1995; Yang, 2004). Dewey and Bentley's (1949) action orientation – self-action, inter-action, and trans-action – falls within the tenets of such cognitive and behavioral change, unleashing individuals' spontaneity in learning through their professional insight linked to work performance (Meggisson et al., 1993; Stewart, 1991; Watkins, 2000). As a parallel, Dewey and Bentley's action orientation gives rise to individuals *controlling* their transformation of experience by intention as well as *connecting* and *sensemaking* their experience by extension (Kolb, 1983). Both cognitive and behavioral participation ultimately lead to holistic learning as individuals observe, reflect (intention), act and experiment (extension) to shape their concrete experience (Kolb & Kolb, 2009a; Yang, 2004).

Overview of AL and EL

We situate the above definitions in the context of AL and EL by providing an overview of the two learning processes and their relationship.

Action Learning

AL was originated by Reg Revans in the 1940's based on his observation of the learning patterns of coal miners in the UK. He found that managers could get together and share ideas with each other without the need of an expert. This discovery led Revans to develop AL sets where small groups of "comrades in adversity" (Cunningham, 2003: 4) would come together to share and learn from each other's experience. Revans' (1984) belief is that people, despite their ignorance of the surroundings, have the ability to awaken their quest for new knowledge by questioning their assumptions and routines. Questioning allows set members to create and modify their frames of references as they make sense of their existing conditions by drawing on past experiences (Cho & Egan, 2009; Fox, 2009). In other words, AL looks beyond causality and seeks to disintegrate complex problems to provide opportunities for members to engage in dialogue, feedback, and reflection as a collaborative inquiry (Marquardt, 2011). In doing so, learning occurs as members construct meanings around their surroundings to help them generate new action patterns (Wertsch, 1997). Consequently, the interactive process of AL influences members' state of reflexive consciousness (Holland, 1999) and emancipate them from their deeply-held assumptions and structures (Fenwick, 2003a).

Revans (1998) subsequently developed Systems Alpha, Beta, and Gamma to contextualize learning and action based on specific problems. Simply put, System Alpha resides between the subjective and objective reasoning, and connects members from personal values to external influences. Consequently, members ask themselves the following questions: *What should be happening? What is stopping it from happening? What can I do to remove the blockage?* On the other hand, System Beta is characterized by a five-stage process, including survey or observation; hypothesis or theory to formulate courses of feasible action; experiment or test; audit or evaluation of what has happened; and review or ratification where comparison between expectation and experience is made. In these stages, participants undergo trial and error (experimentation) to gain practical insight. Finally, System Gamma is the interaction between members and the situation they are trying to influence. The focus here is on 'self' as members generate knowledge by questioning assumptions and intentions to seek change (Revans, 1998), such as: *What were my motives in saying this? What am I missing or avoiding in this situation? What lessons could I learn from the mistake I have made?* Taken together, Systems Alpha, Beta, and Gamma suggest that learning is intertwined in context which offers the stimuli for members to internalize their learning for formulating new action patterns (Trehan & Pedler, 2010).

Experiential Learning

EL was popularized by David Kolb (1984) in the 1970's and 1980's when he introduced the term 'experiential' to an existing body of knowledge on learning from the adult education and psychology literature. As a collective noun, 'experiential learning' suggests a process involved in the sensemaking of context (Illeris, 2007). Through trial and error, individuals internalize the lessons learned and develop adaptive strategies for further action (Miettinen, 2000). Adaptive strategies are approaches to facilitating change or improving a situation (Kolb et al., 2000). EL also involves knowledge acquisition through the grasping and transformation of experience within which individuals engage in observation, reflection, conceptualization, and experimentation (Kolb, 1984). As the cycle goes on, not only do these processes help translate tacit knowledge into explicit knowledge, they also allow learners to apply what they have learned in actual practice giving rise to concrete experience (Michailova & Wilson, 2008). Both reflection and questioning are important components of EL as individuals challenge assumptions and develop action strategies that in turn reinforce learning (Boyatzis & Kolb, 1997).

Kolb (1999) further expounded on the interrelations of experience, knowledge, and learning by clarifying the dialectical relationship between the organization and management of learning. According to Kolb, *organization* refers to learning as a system with interconnected activities while *management* is concerned about the learning process itself. As a system, learning is governed by the interpretations of one's surroundings as one modifies

one's mental orientations and adopts action patterns that help them make sense of their context (Fenwick, 2003a). As a process, learning is perceived as the act of grasping and transforming experience occurring at the cognitive and behavioral level respectively (Weick et al., 2005). The *organization* and *management* of learning can further be explained in Kolb's (1984) EL cycle comprising the four learning phases: concrete experience (CE), abstract conceptualization (AC), reflective observation (RO), and active experimentation (AE). The dialectical relationship between CE and AC suggests the grasping of experience residing at the cognitive level, while the relationship between RO and AE suggests the transformation of experience residing at the behavioral level. Both 'concrete' in CE and 'abstract' in AC are dialectically-opposing adjectives and learners would require a deeper level of understanding of context in order to grasp experience (Larsen, 2004). On the other hand, the dialectic between 'reflective' in RO and 'active' in AE suggests the internalization and externalization of context in order for learners to transform experience (Kolb & Kolb, 2005). Taken together, the tensions between the four learning phases help facilitate the interplay of cognition and behavior (Kolb, 1983).

Relationship Between AL and EL

Similarities

AL and EL share some common features and differ in others (see Table 1). In terms of similarities, both learning processes emphasize the importance of exploring and exploiting frames of references to formulate and modify action patterns (Kolb & Kolb, 2009b; Marquardt & Yeo, 2012). To some extent, EL is a type of AL as both processes involve 'learning by doing' with questioning as a precursor to developing appropriate action (Simpson & Bourner, 2007). While problem solving does not drive EL as much as AL at the individual level, problem management processes can potentially trigger EL characteristics involving group and organizational-level learning (Kolb, 1983). Kolb introduced four analytic stages that correspond to the EL cycle, namely situation analysis (concrete experience), problem analysis (reflective observation), solution analysis (abstract conceptualization), and implementation analysis (active experimentation). The underlying process in the problem management cycle is governed by the dialectic of cognitive and behavioral orientations where tensions arising from inward (cognitive) and outward (behavioral) participation are triggered by the direct (logic) and indirect (symbolic representation) grasping of experience. Such dialectically-opposing cognitive and behavioral dynamics occur in AL as well, as set members engage in reflection, dialogue and feedback to interpret their experience as it unfolds based on shifting contexts (Yorks et al., 1999). Context plays an important role in AL and EL as it helps individuals to emancipate learning (Simpson & Bourner, 2007).

Reflection is a critical component in AL and EL as it focuses on a deeper awareness of power in social context and the affective control of individuals (Fox, 2009; Miettinen, 2000). Reflection also extends the critical perspective of AL as individuals internalize their learning through personal journaling or group reflection to gain deeper insight into action and learning as they make sense of organizational paradoxes (Cho & Egan, 2009; Vince, 2008). Similarly, EL involves reflection by engaging the whole person in order for one to experience the direct and indirect understanding of a particular context based on logical deduction and emotional engagement respectively (Kayes, 2002; Kolb & Kolb, 2009a). This is where a positive experience could lead to a higher level of motivation for achieving specific tasks (Dewey, 1938; Larsen, 2004).

Extending the problem management perspective, Kolb's (1983) EL and Revans' (1980) AL share similarities in cognitive and behavioral participation of individuals involved in different analytic activities. In particular, Revans' Systems Alpha, Beta, and Gamma parallel Kolb's problem management EL cycle in the following ways. Firstly, System Alpha operates in the problem and solution analysis phase of EL where individuals engage in reflective observation of a context to connect one's value system to one's decision making, resulting in abstract conceptualization. Secondly, System Beta involving implementation of plans based on prior information and evaluation of

Table 1. Relationship between AL and EL

<i>Similarities</i>		
Cognitive	Questioning Reflection Sensemaking Information processing	
Behavioral	Dialogue Feedback Active participation Action taking	
<i>Differences</i>		
<i>Dimensions</i>	<i>AL</i>	<i>EL</i>
Enablers of Learning	Driven by complex or urgent problems Critical reflection	Driven by ongoing dynamics Perceptual reflection
Occurrence of Learning	Integrated learning experience based on emergent experience Intentional as catalyzed by a facilitator or coach	Different stages of learning based on distinct experience Incidental as experience changes with context and one's attitude
Member Roles	Facilitated by a set advisor or coach Supported by a problem sponsor Interpersonal	Individual based on personality traits and learning style Individual choice Intrapersonal

action resembles EL's implementation analysis where one engages in active experimentation to determine what was done well and what needs to be done next. Thirdly, System Gamma which combines experience and learning to give rise to a broader perspective of context can be linked to EL's situation analysis phase where one learns from one's concrete experience to make sense of the discrepancies between earlier expectations and the actual condition.

Differences

Theoretically, both AL and EL are not quite the same in terms of learner control and involvement in the learning process. On the one hand, AL operates best at the group level where the AL set engages in a specific problem, questions underlying assumptions, and reflects on alternative action patterns (Pedler, 1997). Fox (2009) referred to this process as learning-from-action and acting-from-learning where AL is a discursive process with set members constantly enacting new ways of organizing. The fact that AL works best with set members as comrades in adversity makes it different from the roles individuals play in EL. In contrast, EL operates more at the individual level where one focuses on self despite one's sensitivity towards various power relations in one's social context. EL dynamics are different from the intimately-bound dynamics of AL sets which represent a microcosm of wider organizational networks (Rigg, 2008). Ways of organizing within a set tend to spill over to the wider organizational systems and enact new patterns of interaction which subsequently facilitate systemic change. On the other hand, EL demonstrates less of an influence over systemic development (Holmqvist, 2004). In other words, while both learning processes involve 'learning by doing', AL takes the learning further by 'doing something different' (Simpson & Bourner, 2007).

The primary driver for learning is also different in both learning processes. While EL is largely driven by ongoing organizational dynamics (Chisholm et al., 2009), AL functions best in complex and 'wicked' problems requiring immediate attention and collaborative inquiry (Pedler & Trehan, 2008). Although reflection is a key component in AL and EL, the level of criticality is quite different. In AL, set members engage in both self and group critical reflection by taking a step further to evaluate the validity of assumptions in order to examine the sources and consequences of particular issues (Lysø et al., 2011). In contrast, reflection resides largely at the individual level based on what one perceives as related to one's experience, as suggested in 'reflective observation' in the EL cycle, deemphasizing the need for criticality. Simply put, the difference in reflection is that in EL, one reflects what one 'sees' while in AL, one reflects one 'does not see'. The level of criticality in reflection also affects cycles of questioning in the two learning processes. Individuals engaged in EL adopt more reactive cycles of questioning based on what is going on in a context leading to 'abstract conceptualization' (Simpson & Bourner, 2007). However, AL members use more insightful questions in a

proactive search of deeper and wider connections of meanings surrounding a context (Brook et al., 2012).

Another difference between AL and EL is the member roles. AL works best with a coach or facilitator, often supported by a problem sponsor, to promote collaborative ownership of a problem (McLoughlin, 2004). AL therefore capitalizes on the diversity of group members to transform learning from the individual to the group level (Marquardt et al., 2009). As different AL sets interact, they transform the dynamics of learning from a specific context within a set to wider organizational practice leading to organizational learning (Rigg, 2008). In contrast, EL is a much more intrapersonal process where one could utilize different learning styles according to one's personality within the EL cycle to enhance one's learning experience (Kolb & Kolb, 2005). In doing so, the learner exercises individual choice and capacity to grasp and transform an experience resulting in individual ownership of learning (Kolb & Kolb, 2009b).

Critiques of AL and EL

The critics of AL (e.g. Chenhall & Chermack, 2010; Mumford, 1997; Pedler, 1997, 2002; Reynolds, 1997; Vince, 2012) and EL (e.g. Bowers, 2005; Collin, 2004; Holman et al., 1997; Illeris, 2007; Kayes, 2002) primarily argue that action or experience does not necessarily lead to learning. There is a deeper level of understanding of cognition and behavior that needs to be explored. In Dewey's (1938) example of 'miseducative experience', he referred to the learning of Physics in a lecture with two completely different outcomes, one with students liking the subject while the other, the lecture. He suggested that experiencing Physics in class and in actual application outside class offers different responses to learning. Learning therefore operates at different levels depending on one's intent and boundaries of choice (self-action), one's perception of the relationship of surrounding entities (inter-action), and one's interpretation of these entities and their relationship with the wider context (trans-action) (Dewey & Bentley, 1949). Linking these notions to AL and EL, it can be seen that the interrelations of action, experience, and learning center on personal intent, cognitive connections of external events, and interpretations of context. The following are several emerging themes based on the critiques (see Table 2 for a summary).

Action or Experience May Not Lead to Learning

AL and EL have been criticized for assuming that learning is decontextualized where individuals can transfer their learning from one context to another readily (Holman et al., 1997; Pedler, 1997). AL and EL are therefore regarded as inward looking with the assumption that individuals have the necessary cognitive and behavioral responses to take action and learn from experience automatically (Simpson & Bourner, 2007). In AL, learning does not necessarily occur through a physical action; action can also occur at the cognitive level

Table 2. Comparison of the Critiques of AL and EL

AL	EL	Emerging Themes
<i>Learning may not occur through action.</i>	<i>Learning may not occur through experience.</i>	<i>Both action and experience can reside at the cognitive level.</i>
The conceptualization of knowledge is an active action (Gherardi, 2001). Such action does not require a behavioral manifestation.	One could become careless and demotivated if the experiences one encounters are disconnected and do not make sense to the learner (Holman et al., 1997; Reynolds & Vince, 2004).	Organizational members increase their self-action through their mental models to conceptualize their action and experience in meaningful ways (Senge, 1990).
<i>Reflection is not just an awareness of social power in collaborative inquiry.</i>	<i>Reflection does not merely occur in conjunction with observation at a particular stage of the learning cycle.</i>	<i>Reflection involves more than a cognitive response to information, tasks, situations, or people.</i>
The criticality of reflection enhances group members' identity and reinforces their membership roles in managing contextual contradictions (Gray, 2007; Marsick & Watkins, 1990).	Reflection emancipates one to respond spontaneously to a particular context, resulting in multiple action patterns within the learning cycle (Bergsteiner et al., 2010; Reynolds, 2009).	Reflection facilitates inter-action by increasing organizational members' cognitive connection (e.g. action and experience) as they identify shared meanings between entities through a higher awareness of the context (Mezirow, 1990).
<i>The social construction of knowledge does not necessarily lead to learning.</i>	<i>Learning is a choice and does not occur automatically.</i>	<i>Learning is driven by self-action based organizational members' attitude and intent.</i>
The social construction of knowledge leads to multiple interpretations of a phenomenon or problem causing learning ambiguity at times (Edmondson & Moinageon, 1998; Tsang & Zahra, 2008).	Learning occurs as a reflexive process where one makes sense of one's role, action, and context in relation to one's cognitive intent (Holland, 1999; Weick, 1995).	Turning tacit knowledge to explicit knowledge requires organizational members to move from inter-action to trans-action through 'learning by doing', integrating action and experience (Orlikowski, 2002).

<p>Action learning sets comprise group members that tend to guard against potential anxiety and personal desires.</p>	<p>Learning is not an individual activity that occurs independently of others.</p>	<p>Learning is enabled by interactional dynamics that shape collective action and experience.</p>
<p>Embedded power and politics could cause emotional tension that disrupts group learning (Vince, 2012) and causes misalignment of team goals (Pedler, 1997).</p>	<p>Learning is a social, cooperative process where shared experience combines individual and team reflection (Boud et al., 1985) to help one make sense of the wider context (Weick et al., 2005).</p>	<p>Learning provides the platform for organizational members to understand the interdependencies of tools, language, and tasks, leading to inter-action and trans-action (Argote & Spekter-Miron, 2011).</p>
<p>Learning is not generated merely from a problem context.</p>	<p>Learning is not devoid of interaction with routines and norms.</p>	<p>Learning is shaped by context where systems, structures, practices, tools, and people interact to fulfill organizational tasks.</p>
<p>Learning occurs in the wider context of organizing, often situated in practice (Brown et al., 1989), and draws on external stimuli (Mowday & Sutton, 1993).</p>	<p>Learning, embedded in practice, is stabilized through routines which could trigger spontaneous learning (Hopkins, 1993; Kayes, 2002).</p>	<p>Organizational members experience context by integrating self-action, inter-action, and trans-action by drawing deeper meanings from their tasks, tools, and social dynamics (Weick et al., 2005).</p>
<p>Highly-structured problems are not necessarily good sources of learning.</p>	<p>Learning does not necessarily occur in a narrow or specific experience.</p>	<p>Learning and context are inseparable, but context could also constrain learning.</p>
<p>Messy and complex problems provide the cognitive context for double-loop learning, allowing status quo to be challenged (Argyris & Schön, 1996; Marquardt, 2011).</p>	<p>Prior, existing, and perceived (future) experience could shape one's attitude towards learning based on the interconnectedness of experiences (Boot & Reynolds, 1983; Reynolds, 2009).</p>	<p>Complex contexts allow organizational members to utilize their boundaries of control (self-action) to connect various entities (inter-action) and relate them to the wider context (trans-action) (Gibson & Earley, 2007).</p>

as a resource (Rigg, 2008; Wertsch, 1997). Conceptualization, knowledge acquisition, reflection, decision making, and problem analysis are all examples of 'cognitive action' (Chenhall & Chermack, 2010; Gherardi, 2001). On the other hand, learning does not necessarily occur through the grasping or transformation of experience (Holman et al., 1997).

Experience alone could either promote or truncate learning. In Dewey's (1938) 'miseducative' example, he suggested that a negative or disconnected experience can affect one's motivation to learn, leading to undesirable behavioral outcomes such as insensitivity towards others or task incompletions. This critique has led to the importance of understanding self-action where individuals exercise control over their boundaries of action and experience (Dewey & Bentley, 1949). In doing so, they begin to re-conceptualize action and experience through the interplay of mental models in social contexts to increase their capacity to learn (Senge, 1990; Wertsch, 1997).

Reflection May Not Occur in a Confined Space

The role of reflection has been criticized for lacking criticality in AL and EL (Kayes, 2002; Vince, 2008). Although critical reflection does occur in AL, it is applied too narrowly on individual problems rather than 'wicked' problems which are wider in scope, often times messier and more complex than meets the eye (Pedler & Trehan, 2008). In fact, critical reflection is more than the challenging of assumptions and routines (Gray, 2007); it offers a new interpretation of membership roles in group settings, particularly in the learning sets (Marquardt & Yeo, 2012). Such interpretation increases members' cognitive awareness of their context to connect action with experience through interaction by seeking relevance and meanings drawn from the context (Dewey & Bentley, 1949).

In EL, reflection in RO is far more complex than meets the eye (Michailova & Wilson, 2008; Seaman, 2008). Reflection is different from observation as it is a skill that has to be acquired overtime where the criticality lies in the self-action of the learner. Observation does not necessarily lead to the formulation of a response either in codified knowledge or concrete action (Reynolds, 2009). Further, self-action allows reflection to occur at any time regardless of its context as it emancipates learning by increasing one's capacity for spontaneity to acquire new knowledge (Bergsteiner et al., 2010; Simpson & Bourner, 2007). However, reflection in AL and EL operates at different levels. In AL, reflection involves the group level and wider context considering power and politics of social interaction (Rigg & Trehan, 2004; Vince, 2012). In EL, reflection operates largely at the individual level (Boud et al., 1985; Kayes, 2002).

Learning May Not Occur Automatically

AL and EL have been further criticized for assuming that learning is an objective and rational process driven by a purposeful activity (Fenwick, 2003b;

Michelson, 1999). This is largely due to the fact that learning is framed in the context of problem solving in AL (Cho & Egan, 2009) or personal learning style in EL (Reynolds, 1997). Learning does occur informally, haphazardly, or accidentally due to shifting contexts (Marsick & Watkins, 1990). In fact, learning is a reflexive process where individuals question who they are in relation to others rather than what can be specifically learned (Holland, 1999). Reflexivity helps individuals enact new organizing practices by implicitly altering interaction patterns that ultimately help transform collaborative relationships (Cunliffe, 2003; Rigg, 2008).

Critiques following AL suggest that the social construction of knowledge through group reflection, dialogue, and feedback may not necessarily lead to learning (e.g. Raelin, 2006; Vince, 2008). The social aspect of knowledge exchange could potentially lead to multiple interpretations of a phenomenon causing learning ambiguity (Edmondson & Moingeon, 1998; Tsang & Zahra, 2008). Knowledge acquisition is undoubtedly an expected outcome of AL and EL. However, in order to turn tacit knowledge into explicit knowledge, it is crucial for individuals to transform inter-action to trans-action by increasing their capacity for sensemaking (Dewey & Bentley, 1949) through learning by doing (Simpson & Bourner, 2007). Appropriate sensemaking helps alleviate learning ambiguity (Weick et al., 2005).

Learning Is Not an Individual Pursuit

Other critiques suggest that AL and EL have somewhat ignored organizational elements such as routines, rules, and norms as contributing towards learning (Brook et al., 2012; Kayes, 2002). Particularly, AL has been criticized for lacking a deeper understanding of emotional ambiguity, politics, and power relations as influencing how learning is played out in organizations (Vince, 2012). Similarly, EL has been criticized for being a structural reductionist approach which does not take into consideration learning as a social and cooperative process (Hopkins, 1993; Raelin, 2006). The experience of others could potentially shape one's learning to the extent that shared experience integrates individual and group reflection to increase one's sensemaking of the wider context (Fenwick, 2003a; Weick et al., 2005). This critique has helped illuminate the social dimension of learning taking into consideration the interactional dynamics that shape collective action and experience (Cook & Brown, 1989; Lave & Wenger, 1991). Socialization helps individuals to be aware of the context and capitalize on the interdependencies of tools, tasks, and human resources to seek connections between entities (inter-action) and fulfill shared objectives (trans-action) (Argote & Spector-Miron, 2011; Dewey & Bentley, 1949).

Learning Occurs in the Wider Context of Organizing

AL and EL have further been criticized for framing learning in a much too narrow context (Rimanoczy & Turner, 2008; Wallace, 1996). In AL, learning is largely focused on a problem context often owned by a sponsor rather than

the wider organizational context (Brook et al., 2012), while EL is sometimes conceptualized outside the context of day-to-day activities such as routines (Reynolds, 2009). As learning is largely embedded in daily work or practice (Orlikowski, 2002), the wider context of organizing promotes situated practice where learning could occur in moments of transitory action (Brown et al., 1989). Furthermore, practice is stabilized through the ongoing organizing of meanings with experimentation as part of spontaneous learning as individuals engage in the interplay of cognitive and behavioral participation (Rigg, 2008). In other words, learning is shaped by context where systems, structures, practices, tools, and actors interact to fulfill larger organizational tasks (Argote & Spektor-Miron, 2011).

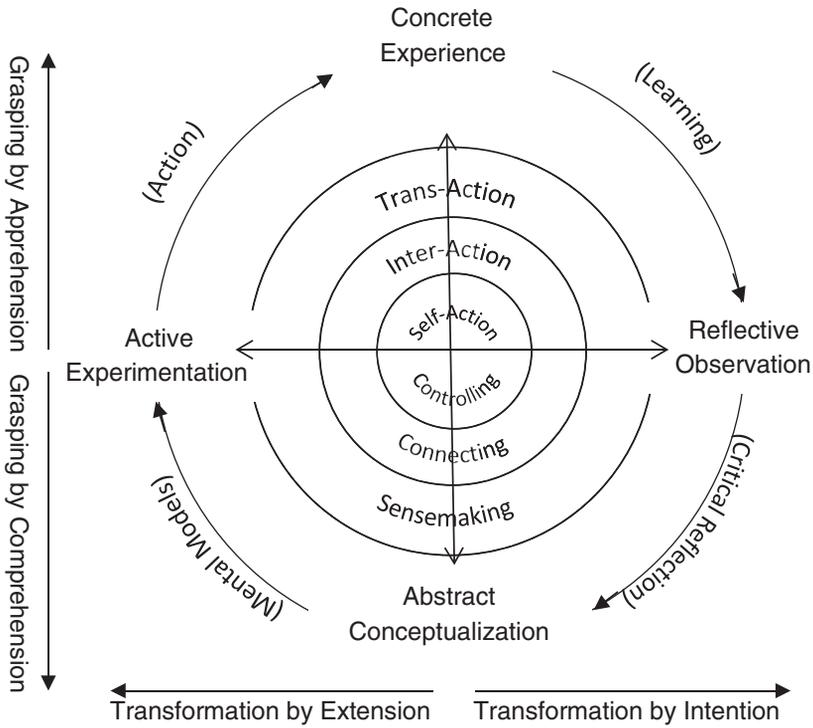
Highly-Structured Context May Not Promote Learning

A recent critique follows that AL and EL operate within too narrowly-bound or specific a context which may not ultimately support learning (Chisholm et al., 2009; Vince, 2012). AL is sometimes constrained by the structuredness and narrow framing of problems that limit learning (Fox, 2009). On the other hand, EL tends to focus on individual learning styles that limit learners' capacity to experience a context in more diverse ways (Reynolds, 2009). Reinforcing the importance of context in AL and EL, it has been found that the messier and more 'wicked' the problem, the greater the potential for individuals to engage in a more dynamic cognitive participation as they engage in questioning, feedback, and reflection (Fenwick, 2003b; Marquardt & Yeo, 2012). To optimize learning, the interconnection of contextual stimuli involving prior, existing, and perceived experience could shape individuals' mental models and affect their attitude to enact new action patterns (Kaye, 2002; Senge, 1990). In many ways, the messiness or complexity of context can help individuals frame learning and exercise their boundaries of control (self-action) to relate to different facets of a problem or issue in order to make sense of the wider context (trans-action) (Dewey, 1983).

Towards an Integrative Framework

The comparative analysis and critiques of AL and EL have helped us to develop an integrative framework of action, learning, and experience (Figure 1) in response to the first research question. This framework is governed by three orientations that serve as conduits for integrating different learning processes. First, *contextual orientation* involving Kolb's (1983) grasping and transformation of experience integrates the knowing and becoming processes as associated with learning. Second, *experiential orientation* involving Kolb's (1984) EL cycle integrates the cognitive and behavioral processes of learning. Third, *action orientation* involving Dewey and Bentley's (1949) self-action, inter-action, and trans-action integrates self and others in the social process of learning.

Figure 1. An Integrative Framework of Action, Learning, and Experience



The above orientations are in turn integrated using Yeo and Gold’s (2011) AL framework to illustrate that critical reflection, mental models, action, and learning are crucial pathways that negotiate the tensions arising from opposing orientations in the EL cycle. Yeo and Gold’s framework is chosen as it considers Kolb’s EL cycle as an organizing platform for understanding the individual and interdependent function of action and learning. The inseparability of action and learning further provides a deeper understanding of transformative experience facilitated by critical reflection and schema selection leading to new action patterns (Mezirow, 1990). Yeo and Gold’s framework also recognizes context as a catalyst for organizing shared conversations and collaborative inquiry leading to new patterns of interaction and shaping the organizing of practices (Lave & Wenger, 1991). Using Yeo and Gold’s framework to integrate the three orientations helps in our multilevel theorizing of learning. We next discuss the integrative framework in detail.

Contextual Orientation: Grasping and Transforming Experience

Contextual orientation considers Kolb’s (1984) grasping and transformation of experience to integrate the occurrence and process of action and learning.

Yeo and Gold's (2011) framework suggests that contextual stimuli could be driven by a problem or an experience engaging individuals to utilize tools, tasks, and actors to help them frame action patterns to organize meanings around wider practice (Argote & Spektor-Miron, 2011; Weick, 1995).

Kolb (1983) suggested that individuals can grasp the reality of context by *apprehension* of concrete experiences and by *comprehension* of symbolic representations. *Apprehension* suggests a direct understanding of the stimuli within a context through what is seen, felt, and sensed of the present condition (Dewey, 1938). Individuals grasping by apprehension are aware of how different contextual stimuli relate to one another in a holistic and synchronous manner. In contrast, *comprehension* suggests an indirect mediated understanding of the reality as individuals use logic to make connections between contextual stimuli beyond the present condition. Instead, they connect them through the linearity of past, present, and future. Another aspect of contextual orientation is the transformation of experience consisting of *intention* and *extension*. Transformation by *intention* suggests an internalization of contextual stimuli through observation and reflection while transformation by *extension* is an externalization of contextual understanding through action and experimentation.

Central to our integrative framework (Figure 1) is the problem management perspective where each phase of the EL cycle is linked to a set of analytic activities. As such, the tensions arising from apprehension and comprehension as well as intention and extension are negotiated through the interplay of cognitive and behavioral processes (Dewey, 1938; Kolb, 1983). Such interplay relates to the grasping and transformation of reality elevating individual *knowing* (cognition) to *becoming* (behavior) (Clegg et al., 2005). Whereas *knowing* works by means of the interplay of abstract conceptualization and concrete experience increasing one's awareness of context (Cook & Brown, 1999; Yanow, 2004), *becoming* operates through the dialectic of reflective observation and active experimentation increasing one's propensity to reshape experience (Clegg et al., 2005; Elliot, 2000). Translating knowing to becoming requires individuals to control their boundaries of action to make connections of what is going on around them, and to subsequently make sense of the interdependencies of contextual stimuli to enact new action patterns (Weick et al., 2005).

Experiential Orientation: Integrating Cognition and Behavior

Experiential orientation combines EL and AL processes to help explain the interplay of cognition and behavior further. The EL cycle could be conceptualized at the group and organizational level if we understood the pathway that connects between phases. Viewing EL from the problem management cycle (Kolb, 1983) illuminates critical processes of AL. The pathway from RO to AC could be explained by critical reflection, a characteristic of AL (Brook et al., 2012). Understanding how emotion and power relations could undermine

learning and action emphasizes the importance of critical reflection as a means of emancipating learning (Rigg & Trehan, 2004; Vince, 2012). However, reflection is not merely an individual process; it operates at the collaborative level as well (Boud et al., 1985). Critical self-reflection is an in-depth self-searching process which energizes one's cognitive orientation towards perceiving, believing, and action taking (Mezirow, 1990). At the group level, critical reflection enhances members' identity and helps them harness their membership to manage dialectically-opposing mental orientations within a context (Gray, 2007; Marsick & Watkins, 1990). Critical reflection at these two levels therefore situates individuals and groups in the wider context of organizing as they enact new interaction patterns leading to organizational practices (Rigg, 2008).

The pathway from AC to AE is linked by mental models where collaborative reflection could lead to different theories-in-use (Argyris, 1982) as individuals and groups explore alternatives and formulate action patterns (De Stobbeleir et al., 2011). Mental models are deeply-held images of reality that are external to individuals (Senge, 1990), giving rise to familiar patterns of thinking and action drawn from past experience (Kolb & Kolb, 2009b). Learners can combine tried-and-tested methods with theories-in-use as cognitive frameworks for action to develop conceptual inquiry (Argyris & Schön, 1996). Mental models are shaped through dialogue and feedback based on schema selection connecting cognition (how one thinks), action (what one does), and experience (how one relates to a context) to fulfill organizational objectives (Gibson & Earley, 2007; Senge, 1990).

The pathway from AE to CE is determined by action that transcends mental models into decision making and critical thinking, enacting both cognitive and behavioral action patterns (Gherardi, 2001). Experimentation takes new meanings and structures conceptualized at the cognitive level to the behavioral level where individuals translate them into practical outcomes (Rimanoczy & Turner, 2008). Action therefore operates between the experimental (AE) and experiential (CE) domain where collaboration could give rise to a new level of commitment. When individuals and groups seek clarity on the purpose of action and criteria for accountability, they in turn shape the experience of action taking (Handley et al., 2007). As mutual trust between actors develops, constant experimentation through new action patterns will ultimately lead to meaningful learning experiences (Holmqvist, 2004), directing a new pathway from CE back to RO. Concrete experience offers distinct stimuli that increase individuals' and groups' capacity for learning (Yeo & Gold, 2011). Learning therefore integrates the cognitive and behavioral response to context for organizing action and experience.

Action Orientation: Integrating Self and Others

Action orientation is at the epicenter of our integrative framework as it illustrates the interplay of self-action, inter-action, and trans-action amplifying

the relationship between self and others (Dewey & Bentley, 1949). This orientation serves as a platform for organizing social relations helping individuals understand their capacity in *controlling* their mental orientation (Kolb et al., 2000), *connecting* contextual stimuli (Brown et al., 1989), and *sensemaking* wider organizational practice (Weick, 1985). At the individual level, learning from an awareness of context requires one to engage in the whole person requiring one's cognitive, behavioral, affective, and social participation (Gray, 2007; Weiss & Cropanzano, 1996). Learning is largely controlled by individuals themselves in the form of self-action based on their attitude and intent (Dewey, 1938). This is how they exercise control over their mental models as they conceptualize their action and experience through critical reflection (Mezirow, 1999). Critical reflection, a form of self-action, subsequently shapes their decision making, increasing their awareness of the context and facilitating inter-action where they seek connections between contextual stimuli (Elsbach et al., 2005; Rimanoczy & Turner, 2008).

While self-action promotes individual learning, inter-action involving dialogue and collaboration develops group learning. As a social process, learning serves to enact new ways of organizing as individuals negotiate the tensions arising from direct and indirect understanding of a context by connecting tools, tasks, and actors to produce meaningful action patterns (Argote & Spektor-Miron, 2011; Kolb, 1983). The more 'wicked' the context, the greater the opportunity for internalizing and externalizing learning (Brook et al., 2012; Kolb et al., 2000). Internalizing through reflection and externalizing through experimentation could help individuals utilize their boundaries of control (self-action) to connect to collaborative frameworks of organizing (inter-action) to make sense of the wider context of practice (trans-action) (Dewey, 1938; Weick et al., 2005). Contextual stimuli enable individuals and groups to internalize the external organizational world (self-action) by relating contextual meanings (inter-action) to organizational objectives (trans-action) (Dewey & Bentley, 1949).

The transition from inter-action to trans-action requires individuals to move from learning by doing (knowing) to learning by doing something different (becoming), combining action and experience to grasp and transform reality (Simpson & Bourner, 2007). Sensemaking between inter-action and trans-action recreates the perceived (what could go wrong) and lived experience (what do I encounter now), helping individuals search for new meanings to reframe their action patterns (Weick & Roberts, 1993). When individuals and groups experiment their ideas, they are mindful of their control mechanisms for action (self-action), opportunities and constraints that affect potential action in a social context (inter-action), and the consequences of action as affecting specific organizational tasks (trans-action) (Dewey & Bentley, 1949). Interaction between self-action, inter-action, and trans-action therefore involves individual and collective perception, memory, and information processing that ultimately leads to organizational learning (Fiol & Lyles, 1985).

Summary

Our proposed integrative framework illuminates the importance of context as shaping action, learning, and experience. Integrating AL and EL through the lens of contextual orientation helps to recognize the underlying dialectical forces that both reinforce and contradict schema selection and action framing. As individuals and groups become aware of the tensions that facilitate the grasping and transformation of experience, they begin to enact action patterns through the interplay of cognitive and behavioral participation, translating knowing to becoming. Such interplay is regulated by critical pathways that connect different phases of the learning cycle into coherent patterns of organizing. The learning cycle is contextualized through the interplay of action orientations that connects individuals from 'self' to 'others' through a dynamic 'organization' of meanings to allow learning to occur at different levels.

Implications for HRD Research and Practice

The attempt to reframe AL and EL offers some pertinent implications for HRD by considering the interplay of action, experience, and learning. The contextual, experiential, and action orientations further suggest that learning is a complex process, intimately bound in work practice (Raelin, 2006). We next outline some implications of this research for HRD as a response to the second research question.

Firstly, an understanding of contextual orientation could help employees to be more aware of the opportunities for exploiting existing structures, systems, and practices to develop their adaptive skills (Roth, 2004). Appropriate sensegiving by supervisors could help their employees better understand their roles to increase their capacity for learning at the individual and group level (Maitlis & Lawrence, 2007). Both individual and group learning could be enhanced by increasing employees' accountability through a commitment to ongoing change and development. Critical self and group reflection could help emancipate learning if employees are made aware of the tools, tasks, and human resources that can be utilized to generate new meanings in their work (Mezirow, 1990).

Secondly, motivational devices could be used to reinforce the identity, autonomy, and influence of employees to promote formal and informal learning in the workplace to increase their level of experiential orientation (Marsick & Watkins, 1990). When employees internalize their capacity to enact new action patterns, they become more reflexive by examining their roles and identities as well as those of others to frame their social boundaries (Cunliffe, 2003). Questioning who they are (identity) in relation to others (role) could influence group membership. In addition, new meanings surrounding their work could be developed through raising their level of awareness of the interdependencies of tasks across different functions. In group settings, constant dialogue and feedback will help members to see the big picture of

the organization as they question assumptions and evaluate alternatives to enhance their decision making and problem solving skills (De Stobbeleur et al., 2011).

Thirdly, it is important for employees to develop a deeper understanding of themselves in relation to others to increase their level of action orientation (Dewey, 1938). Opportunities to enhance their communication and relational skills can help transform control into emancipation as far as learning is concerned. When employees realize that the process of learning helps them organize meanings and practices around their work, they will be more inclined to harness group learning to alter their patterns of interaction (Orlikowski, 2002). As they experiment new ways of doing things differently and collaboratively, they develop complex problem solving and critical thinking skills. Cross-functional work could provide the context for members to develop a wider community of meaning and practice that promotes new thinking action patterns ultimately resulting in organizational learning (Rigg, 2008).

In summary, adopting a contextual perspective of HRD echoes Lee's (2001) call for relying on one's own experience to frame HRD, integrating both psychological and sociological influences where the perceived experience (mental models) and lived experience (social relations) are intertwined. Framing a context is within one's internal control (self-action) while experiencing a context is subject to the influence of external stimuli (inter-action) (Watkins, 1991). That HRD is concerned with the influence of individual learning on organizational outcomes (McLean & McLean, 2001) takes its definition to a wider scope as this research reinforces Elliot's (2000) human 'becoming'. The context of 'becoming' is 'knowing' the interactions of human, resource, and development (trans-action) through the dialectic of grasping and transforming experience (Russ-Eft, 2000). This perspective points to the reflexivity of learning (Holland, 1999), suggesting that HRD is as much a learning as an organizing process (Sleezer et al., 2004) serving a systemic function in organizations (Elliot, 2000).

Conclusions

In this article, we argue that both AL and EL could be integrated through the orientation of context, experience, and action to offer a multilevel theorizing of learning. The contextual orientation situates the relationship of AL and EL by suggesting that action and experience can be integrated through 'learning by doing something different' for meeting shared objectives (Simpson & Bourner, 2007). Learning is enabled through the consciousness of individuals and groups, helping them internalize their organizational world based on the dialectic of mental orientations fueled by the need to reflect and experiment as well as the tension resulting from the direct and indirect understanding of experience. As individuals and groups become acquainted with their

capacity for enacting their action orientation, they engage in the interplay of controlling, connecting, and sensemaking their learning to recreate action patterns and experience. The implication for HRD practice is the creation of context for individuals and groups to develop the awareness and readiness for adapting to complex organizational contexts and generating new learning approaches as an inescapable way of life (Senge, 1990).

As a way of advancing this study, we suggest that future research could explore the interplay of action, learning, and experience from the critical perspective to offer a deeper understanding of cognition, behavior, and affect in social relations. The relationship between contextual, experiential, and action orientations could also be explored from the dialectical perspective given emerging tensions arising from complex organizational phenomena. A more macro level of analysis involving organizational structure, systems, and practices could also offer a more practical understanding of action, learning, and experience occurring at the micro level. Extending the macro perspective, the proposed integrative framework (Figure 1), with its potential for multilevel theorizing, could be expanded for exploring learning at the strategic level based on inter-organizational experience.

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Roland Yeo holds a PhD in Organization Studies from the Leeds Business School in UK and is currently based in Saudi Aramco as a Management Learning Researcher. He is also an Adjunct Senior Research Fellow with University of South Australia Business School and teaches on the EMBA program at the King Fahd University of Petroleum & Minerals in Saudi Arabia as a Visiting Associate Professor of Management. His main research interests are in organizational learning, knowledge sharing, leadership identity, technological change and HRD.

Michael Marquardt is Professor and Chair of the Department of Human and Organizational Learning at The George Washington University's Graduate School of Education and Human Development. He also serves as President of the World Institute for Action Learning (www.wial.org). Mike is the author of 24 books and over 100 professional articles in the fields of leadership, learning, globalization and organizational change, including *Building the Learning Organization* (selected as *Book of the Year* by the Academy of HRD); *The Global Advantage*; *Action Learning in Action*; *Global Leaders for the 21st Century*; *Global Human Resource Development*; *Technology-Based Learning*; and *Global Teams*.

Corresponding author:

Roland Yeo can be contacted at yeokkr@yahoo.com.

