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Abstract

Purpose – This paper aims to gather empirical evidence for what colleagues from different organizations reported they learned from informal professional learning conversations. Informal learning conversations with colleagues is a powerful yet understudied source of self-directed, professional development.

Design/methodology/approach – This study of mixed methods investigated the types of learning 79 leaders from 22 organizations reported they learned via post-conversation surveys from 44 peer-led discussions over a two-year period.

Findings – Survey data suggest empirical evidence of five learning outcomes – informational, conceptual, operational, reflective and social learning. The study describes these categories, the overall distribution of these types of learning in the community and how most conversations were "high-yielding" in a particular outcome.

Originality/value – To the knowledge of the authors, this study is the first to suggest empirical evidence of categories of learning that participants report from informal, cross-organizational learning conversations.

Keywords Leaders, Continuing professional development, Knowledge sharing, Lifelong learning, Adult learners

Paper type Research paper

Informal learning conversations with colleagues is a powerful yet understudied source of self-directed, professional development. This study investigated the types of learning 79 leaders from 22 organizations reported they learned from 44 peer-led conversations over a two-year period. Survey data suggests empirical evidence of five learning outcomes – informational, conceptual, operational, reflective, and social learning. The study describes these categories, the overall distribution of these types of learning in the community, and how most conversations were "high-yielding" in a particular learning type. It concludes with possible explanations for these patterns as well as potential lines for future research.

Introduction

In recent years, the value of professionals from different organizational contexts learning with and from one another in informal conversations has gained momentum.

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Structures such as "knowledge jams" are being used to spark innovation and develop knowledge networks across for-profit and non-profit sectors (Johnson, 2009; Pugh, 2011). Open-ended, emergent conversation formats such as "world cafés" and open space technologies involve participants in large- and small-group discussions to co-create solutions to entrenched social problems (Brown, 2005; Owen, 2008). Such forms illustrate the power of peer-led informal learning conversations. They convene participants from different organizational contexts – ranging from health-care professionals to business managers to policy makers – establish the goals of discussion, engage in lightly structured and emergent conversational process and evaluate the outcomes of their experience.

The emergence of these informal, professional learning formats is not surprising to many. Research on the importance of peer-led dialogue among professionals has been well documented by researchers who study informal learning (Eraut, 2004; le Clus, 2011; Manuti *et al.*, 2015; Marsick and Watkins, 2001). Informal learning is broadly defined as situations in which participants define the goals and orchestrate the process and evaluation of their learning. These self-directed forms of learning are a prominent mode of building situated knowledge in professional contexts (Wenger, 1999). In fact, some studies suggest that informal, situated learning is such a dominant mode of learning that approximately 70 per cent of what professionals come to know about their practice is from informal interactions with colleagues (Leslie *et al.*, 1998).

While these conversational forms of situated learning promise outcomes such as increases in knowledge sharing and creation, problem-finding and -solving and interpersonal connectivity (Pugh and Prusak, 2013), little is known about the types of learning participants typically gain in informal, cross-organizational settings. This study seeks to fill this gap in the research with empirical evidence of what types of knowledge professionals learn from peer-led, cross-organizational learning conversations. With a sharper understanding of the types of learning participants gain from these experiences, facilitators and leaders may make more informed choices about how to enhance the learning for those involved.

Three views on informal learning outcomes

What do leaders and managers of organizations learn from and with one another in informal interactions? A review of theoretical orientations to this question revealed three broad perspectives. When professionals from different contexts convene, the resulting learning can be viewed as building cognitive complexity, performative skills and/or sociocultural knowledge.

Cognitive complexity

Several theorists have extended Piagetian theories of learning to argue that a primary pattern in adult learning is the advancement of cognitive complexity or meaning-making (Jaques, 1994; Kegan, 1982; Mezirow, 2000). In the face of work-based challenges or triggers, such theorists have documented how executives develop increasing levels of sophistication in framing problems, weighing solutions, identifying causal connections and engaging in system thinking. For example, Kegan (1982) presents a constructive-developmental theory that describes "orders of consciousness". These orders describe twenty-one different stages in which adults gradually increase their ability to abstract and connect concepts, build systems and then connect and

abstract between and among them. Similarly, Illeris (2009) categorizes the development of learning into four general stages that range in cognitive sophistication – cumulative, assimilative, accommodative and expansive – in which the later stages occur in adulthood. Dawson-Tunik (2006) identifies over a dozen orders of "hierarchical complexity" in adults, each characterizing an increasing sophistication in how adults remember, connect, organize and restructure their knowledge. Though such cognitive orientations reveal potential types of learning outcomes, studies have yet to explore what leaders of different organizations learn from one another in informal, peer-led discussions.

Performative skills

A second body of theoretical work is oriented toward describing the quality of knowledge that is gained through formal and informal learning occasions that lead to action. Many of these theories have roots that extend from the seminal work of Bloom (1956), in which he articulates types of knowledge that can be demonstrated in a variety of performances. For example, Clark and Harrelson (2002) define five "content types" – facts, concepts, process, procedure and principle – that highlight a declarative-procedural knowledge spectrum useful for the design of formal instruction to maximize human cognitive processes. Similarly, Gnyawali and Stewart (2003) suggest types of learning that emerge from formal learning processes, ranging from operative learning that validates existing schemas and information to re-inventive learning that fundamentally changes existing schemas and acquires new information. Though such frameworks give insight into the types of learning that may be developed, they are focused more on how formal learning environments, such as workshops and seminars, may be designed to cultivate different learning outcomes. However, some studies have identified types of knowledge that professionals develop informally in their everyday work experiences. Notably, Eraut (2004) categorizes several types of self-reported learning, including various task-based performance skills, skills for teamwork, role performance and decision-making skills. Though these studies are suggestive of the types of informal learning that professional report, they are focused on individual experiences within the workplace, not on cross-organizational encounters with peers.

Sociocultural knowledge

A third theoretical approach points to the importance of learning sociocultural knowledge via informal interactions with peers. Research in this tradition emphasizes that what participants come to know, often in addition to cognitive complexity and performative knowledge, is a deeper sense of themselves, of others, and of the often unarticulated values that are pervasive in social settings. For example, from extensive interviews, Eraut (2004) found that managers informally learn about aspects of themselves and others such as a new awareness of their own culture (e.g. attitudes around collaboration and values on ethical issues), colleagues' perspectives, as well as personal knowledge of self-management, handling emotions and building relationships with others. In addition to learning job-related skills, Lesile *et al.*'s (1998) landmark, cross-sector study found that employees informally learned other types of intrapersonal knowledge (e.g. coping with stress), interpersonal knowledge (e.g. collaborating with others) and cultural knowledge (e.g. norms for making mistakes). Researchers and

theorists in this vein point to the importance of this: what people learn in informal, peer interactions is often the tacit knowledge of themselves, of others, and of their work setting.

While these three theoretical orientations and literatures are suggestive of what professionals may learn from informal interactions with colleagues, we have found no literature that focuses specifically on what leaders report they learn from informal, cross-organizational conversations with peers. Nor have we found studies that investigate whether different informal learning conversations tend to yield similar types of learning outcomes for participants. In many settings, informal learning occurs within ongoing communities that meet regularly over time. Yet, to our knowledge, no study has examined whether there any interesting differences in types of learning reported learning over time. Therefore, this research aims to empirically answer the following questions:

RQ1. What types of learning do leaders in a cross-organizational learning community report they learn from informal, small-group conversations?

RQ2. Based on the types of outcomes leaders report they learn from conversations, do conversations tend to yield similar distributions of reported learning?

RQ3. Do types of reported learning and/or distributions of reported learning from conversations vary over time?

Context and methods

Data were gathered from an existing learning community of 79 upper level, global executives (Chief Learning Officers, Chief Innovation Officers and Directors of Innovation) from 22 non-competing organizations. They convened at six two-day gatherings over the course of two years to explore topics related to challenges they face in their organizations[1]. During each day, there was an opportunity for participants to nominate and host "conversation cafés" with their peers – an informal occasion in which participants declared something they would like to discuss with others related to the theme and topic of the gathering. Nominations were gathered, interest was tested in the group and then participants self-organized into three to five parallel discussions. Over the course of two years, researchers studied 44 of these "conversation cafés" that ranged from three to nine participants and spanned 22 to 74 minutes[2]. The data for analyzing learning outcomes were drawn from post-conversation survey responses ($n = 241$) that asked participants to write two things they learned from their conversation immediately after it concluded. In total, 349 unique stated learnings were collected from the 44 conversations cafes.

These conversations fall within the definition of informal learning due to the self-directed quality of the learning goals, process and evaluation. Though the views on informal learning outcomes were important theoretical starting points for this study, they were not used as explicit coding categories. Rather, the study let categories emerge from the data. Each conversation was recorded and transcribed. A team of six researchers read and discussed the transcripts to generate a memo for each discussion that captured basic information (date, number of participants, participant initials, length of discussion, title of topic, number of reported learnings, etc.) and qualitative themes that seemed noteworthy (opening frame, participation patterns, presence of questions, etc.). After memos were written, the researchers took a grounded approach to

develop a coding scheme that characterized the types of learning reported by participants (Strauss and Corbin, 1998). The scheme was developed through an iterative process that included a recursive review of the aforementioned learning data and fine-tuning of the criteria for each code in the scheme. As part of the process, drafts of coding categories and criteria were compared to concepts in related literature to incorporate language that could tie codes to existing, but indirectly related, research. A final version of the coding scheme (Table I) emerged through a continual process of team-level revisions based on these reviews of the coded data. In all instances, when the scheme was modified or revised, the team revisited previously coded data to apply and test the efficacy of the newly refined criteria for code determination.

To test the reliability of the coding scheme, an independent rater was trained using a random sample of the data ($n = 31$). As part of the training, the independent rater coded the sample data and discussed areas of agreement and disagreement with the coding done by the research team to clarify the characteristics and criterion related to each code in the scheme. The independent rater then coded an additional random 30 per cent sample drawn from the data set ($n = 102$). Reliability measures revealed an 88 per cent agreement rate between the codes determined by group consensus among the coding team and those of the independent rater. A generalized Kappa statistic – which is a statistical estimation of agreement that accounts for agreement by chance – revealed an almost perfect level of agreement ($k = 0.82$) across codes (Landis and Koch, 1977)[3].

Findings

RQ1. What types of learning do leaders in a cross-organizational learning community report they learn from informal, small-group conversations?

Informational learning

When asked what they learned from the discussion, some participants wrote that they learned specific knowledge such as "The notion of the starfish-spider organization", "The definition of nexus work" or "the bell shaped curve of engagement". These were coded as informational learning – learning about a specific concept, definition, resource or model. Such reports were unistructural or one-dimensional in nature (Hook and Mills, 2011). That is, participants reported that they learned about a singular piece of information. Its deep structure was that the participant learned "about X". These statements also included reports of participants learning about the parts or steps of a single thing, such as "The categories of innovation as described on a 2 × 2". Informational learnings resemble Marzano's (2000) notion of "know-what" types of knowledge that are characterized as noun-like.

Operational learning

Other reported learnings were strategies or actions that could be carried out, such as "Ways of looking for real vs decoy problems", "Find a credible champion" or "Tools for using social network analysis". These statements were coded as operational learning – learning about a specific process or practice that could be used. They were procedurally oriented, naming how knowledge applied to participants' work-life context. Often they were phrased as advice to guide future action, such as "Frame learning as a process rather than an event". They illustrated elements of strategic thinking about how to act with knowledge in situations. These statements occasionally included language about using an approach to achieve some desired goal, such as "Don't expect the learning

Table I.
Learning type decision criteria for the analysis of self-reported learnings from conversation cafes

Learning type	Criteria	Examples
Informational I learned about X	Namesa specific concept, resource or definition. May name parts, categories, types, components, etc., of that one thing. Deep structure is *one dimensional* in nature: is about one thing. Is "know-what" and more noun-like than verb-like	"The innovation 2 × 2"; "Definitions of nexus work"; "Notion of starfish-spider org"; and "Work out concept from Jack Welch."
Operational If A happens, do B; if I want C, then do D; and do/don't do Z	Names strategies, approaches or practices. Is procedurally oriented, names how knowledge applies in the work/life context. Deep structure is *practice oriented* in nature: relating *X* to practice. Is "know-how" and actionable (verb-like)	"Different approaches to innovation in R&D groups"; "Way of looking for real vs. decoy problems"; and "Frame learning as a process rather than an event. "
Conceptual I learned about how A relates/ connects to B; X is, or seems to be, about...	Describes an idea, theory, model, belief or generalization. Names connections among ideas. States the power, relevance, importance or role of an idea. Classifies, compares/contrasts or explains the elements of a concept. Deep structure is *multidimensional* in nature: is about *more than* one thing. Is "know-that" and more noun like than verb-like	"Connection between interest, curiosity, and insights. "; "Existing organizational stories may be helpful or harmful"; "Continuum with sweet spots of problem-finding in the middle"; and "Relationship between curiosity and inquiry."
Reflective I need/want to know more about A; I am still wondering/speculating about B; and I am now thinking differently or am aware of C	States a lingering question or what one does not yet know. Describes how assumptions/beliefs/values have been challenged. States a new awareness that may be about informational, conceptual and/or operational knowledge. Notes a new awareness of one's own thinking, interests or practice. Is *metacognitive* in nature: describes thinking about one's own thinking	"Some of my mental models were disrupted –I was thinking of talent as an individual forgetting the concept of the network. "; "There is a real issue around this that warrants further exploration of topics and tactics"; and "Wondering more about the role of expertise/novice in team creativity."
Social I learned about the value of the group process; I learned about other group member's goals, interests, challenges and how they are similar or different from my own	Describes the value of the conversation, the process of conversation, power of listening to different perspectives. Names learning about participants' similarities or differences, common purposes, interests, values, beliefs, experiences, etc. Is often content neutral. Is *group-oriented* in nature: about those in the conversation and the process they engaged in	"How my challenges are similar to other organizations challenges"; "Reinforced how productive small group discussions can be"; "We didn't have the right kind of people to make progress on the topic"; and "How humor helped in shaping the way the group worked. "

group to serve as the catalyst for change". In general, operational learnings embody Marzano's (2000) notion of procedural types of knowledge that are aptly characterized as "know-how" and are verb-like in nature. Items also bore resemblance to previous notions of "instrumental knowledge", or cause and effect information, participants gain from learning in groups (Cranton, 1996).

Conceptual learning

Participants also noted they learned about multiple aspects of a concept or came to see new relationships among ideas. For example, participants wrote they learned "Connections between interest, curiosity, and insights", "The continuum with sweet spots with problem-finding in the middle" or "Existing organizational stories might be helpful or harmful". These statements described connections or comparisons among ideas or the pros/cons of concepts. Some conceptual learnings noted the power, role or importance of a theory or concept, such as "The impact of a deeply immersive program". Such reports evidence multi-structural connections among ideas (Hook and Mills, 2011) in which participants articulated new associations and connections among knowledge.

Reflective learning

Some participants also reported that they were still sitting with a lingering question or noted a shift in their thinking about topics that were discussed. For example, participants wrote statements such as "Wondering more about the role of expertise/novice in team creativity" or "Some of my mental models were disrupted – I was thinking of talent as an individual FORGETTING the concept of the network". These learnings illustrated self-awareness of one's thinking, or alertness to shifts in one's thinking and were coded as reflective learning. Such statements of learning often noted what participants did not yet know or continued to ponder. Participants reported how assumptions or beliefs about the topic were challenged or changed, or articulated a new awareness of one's own ideas about the topic. Reflective learning illustrates qualities of metacognition, similar to concepts of personalistic reflection (Valli, 1997) and emancipatory knowledge (Cranton, 1996), which describe one's knowledge of intellectual self-growth, critical reflection and attention to one's inner voice.

Social learning

Participants also stated that they learned aspects about the process or value of group discussion, such as "Seeing problems together expands what the nature of the question or challenge is" or "The value of listening to others, we all have similar challenges". These learnings were coded as social learning – learning about the group process, group members' goals or the importance of group discussion. These stated learnings were content neutral and focused on the value of the discussion or quality of the process used in the small-group social interaction. They often named how useful or effective the conversation was, emphasizing the importance of listening to others, hearing different perspectives or learning from other's experience. Participants occasionally noted limitations of the process, such as "We didn't have the right kind of people to make progress on the topic". This category also included descriptions of similarities or differences among participants' experiences, interests, beliefs or organizational contexts. Social learnings are interpersonal in nature – illustrating new knowledge about others and the quality of the social interaction.

Distribution of types of learning

Two types of learning were most prevalent in the reported learning data: over a third of the stated learnings, 35 per cent (120 of 349), were uniquely coded as conceptual, and more than a quarter of reported learnings, 29 per cent (100 of 349), were coded as operational (Figure 1). Together they comprised almost two-thirds, 64 per cent, of all reported learnings. In comparison, just 12 per cent of all reported learnings (42 of 349) were uniquely coded as informational and 12 per cent (43 of 349) were coded as social. Finally, just 10 per cent (36 of 349) of stated learnings were uniquely coded as reflective.

Less than 1 per cent of the data (3 of 349) were statements were double-coded. There were two instances of learnings coded as both conceptual and reflective and one instance of a learning coded as both reflective and social. Just over 1 per cent of the data (5 of 349) researchers agreed was "uncodable". These were statements in which the handwriting was illegible or was deemed off topic (e.g. in response to the question "Write two things you learned from the conversation": one participant answered, "That I hate open ended questions").

RQ2. Based on the types of outcomes leaders report they learn from conversations, do all conversations tend to yield similar distributions of reported learning?

On average, the 44 conversation cafes included five participants and lasted 45 minutes. Each had a variety of types of reported learnings, with 75 per cent (33 of 44) having three or more types of learning, and no conversation had only one type of learning reported. To ascertain whether there were any comparative similarities or differences among conversations, researchers took the overall distribution of reported learning types across all conversations and calculated the mean values of each type of learning in the sample to characterize a typical conversation cafe. For example, the percentage of reported learnings from a typical discussion would have a distribution of 13 per cent informational, 26 per cent operational, 34 per cent conceptual, 10 per cent reflective and 15 per cent social types of learning. Researchers then looked for instances in which the percentage of type of reported learnings from a particular conversation displayed more than one standard deviation above these mean values. This was used to establish a threshold for determining whether, based on the distribution of participants' reported learnings, a conversation was "high-yielding" in informational, operational, conceptual, reflective or social learning outcomes.

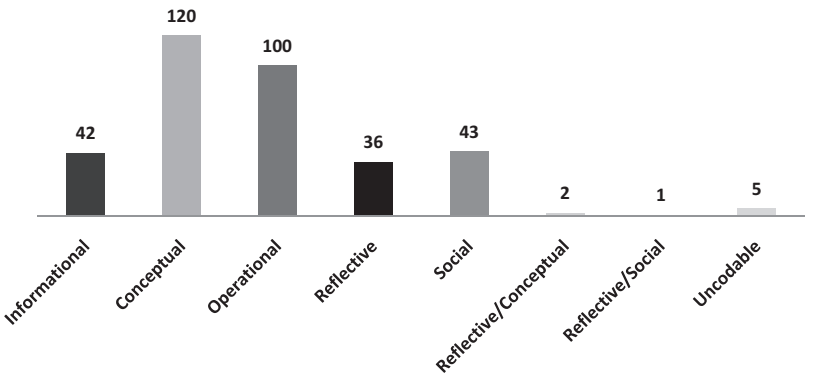


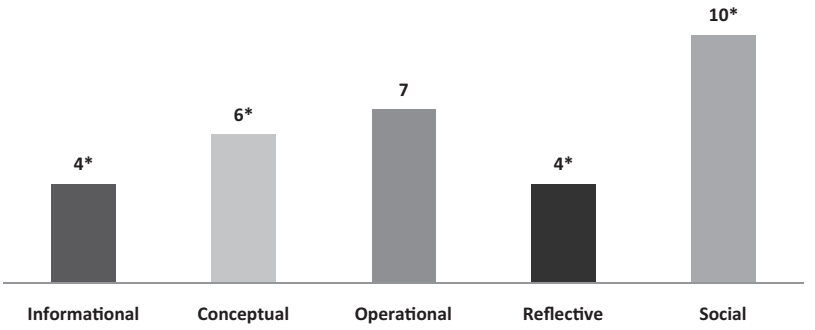
Figure 1.
Distribution of types of learning ($n = 349$)

Over one-third of the conversations (16 of 44) had percentages of reported learning outcomes that were all within one standard of the mean values of the learning types in an average conversation. However, and quite surprisingly, in 64 per cent of the conversations (28 of 44), the percentages of at least one type of reported learning outcome were more than one standard deviation above the sample mean (Figure 2). Almost all of these conversations (25 of 28) had higher levels in a single type of learning, while three conversations had elevated reports of two learning types (informational-social, conceptual-social and reflective-social). No conversation was high-yielding in more than two types of learning. Of the 44 conversations, four were (7 per cent) high-yielding in informational outcomes (7 per cent), seven in operational outcomes (16 per cent), six in conceptual outcomes (14 per cent) and four in reflective outcomes (9 per cent). Interestingly, 23 per cent of the conversations (10 of 44) were high-yielding in social learning outcomes.

RQ3. Do types of reported learning and/or distributions of reported learning from conversations vary over time?

The data in this study were drawn from conversations that occurred on the first and second day of six two-day community gatherings. As mentioned in the context, each year consisted of three gatherings (Fall, Winter and Spring) organized around an annual theme. Therefore, answers to this research question explored temporal differences in two ways: looking for differences between Day 1 and Day 2 as well as differences between Fall, Winter and Spring gatherings.

With regard to the types of learning, there were no notable differences found between Day 1 and Day 2 over the two years: each day revealed roughly the same amounts of informational, conceptual, operational, reflective and social learning. However, when comparing the types of learning as the year progressed, only reports of operational learning showed differences. Namely, reports of operationally coded learning increased as the year progressed. When comparing reports of learning, 15 per cent (n = 15) of operational learning occurred in Fall cafes, compared to 41 per cent (n = 41) in the Winter and 44 per cent (n = 44) in the Spring cafes. Similarly, the occurrence of conversations that yielded higher that one standard deviation above the sample mean in operational learning outcomes also increased as the year progressed. For example, Fall gatherings only held one such high-yield conversation, whereas Winter and Spring gatherings each held three of the remaining conversations that yielded high levels of



Note: * Totals include double-coded conversations

Figure 2.
Distribution of conversations that displayed more than one standard deviation above the sample mean in particular types of learning (n = 31)

operational learning. In contrast to the finding that no differences were found between the reports of learning between Day 1 and Day 2, five of the seven conversations that were high-yielding in operational learning occurred on Day 2 of the gatherings.

Although the percentages of the type of reported learnings were similar each year, and no notable differences were found between reported learnings between Day 1 and Day 2, conversations that were high-yielding in types of learning tended to occur in the Fall. Of the 14 conversations that occurred in the first event of each year (Fall), thirteen (93 per cent) were high-yielding. Specifically, these Fall events held 3 of the 4 conversations that were high-yielding in informal learning, 4 of the 6 conversations that were high-yielding in conceptual learning, 1 of the 7 conversations that was high-yielding in operational learning, 3 of the 4 conversations that were high-yielding in reflective learning, and 5 of the 10 conversations that were high-yielding in social learning. The readers may recall that there were three high-yielding conversations of two types of learning. All three of these conversations also occurred in the Fall events.

Discussion

The findings from this study revealed five broad categories of what the professionals reported they learned from informal, peer-led conversations. These emergently coded categories proved statistically reliable and offer empirical evidence to many aspects of the existing theoretical literatures of types of learning outcomes identified in the opening of this paper. Aspects of conceptual and reflective reports of learning offer supportive evidence for finding traces of cognitive complexity in participants. Examples of conceptual understanding were coded when participants named connections among ideas, classified ideas within larger systems or stated comparisons/contrasts. Reflective learnings were coded when participants described a change in their assumptions or a new meta-cognitive awareness of one's thinking. These learnings map well onto theories that describe what is learned as a development of cognitive sophistication in which participants frame/reframe their thinking, name connections and engage in system-level thinking (Dawson-Tunik, 2006; Illeris, 2003; Jaques, 1994; Kegan, 1982; Mezirow, 2000). Similarly, the categories found provide evidence for the performative skills and sociocultural outcomes of informal learning (Manuti *et al.*, 2015). For example, operationally coded learning seems to provide strong evidence of performative skills. Operational learning was coded when participants named specific strategies, processes and applications of practices into one's own context. Such learning is consistent with other research that has identified similar procedural and practice-based knowledge as an important outcome of informal learning (Armson and Whiteley, 2010; Ellinger and Cseh, 2007; Eraut, 2004; Volpe, 1999). Likewise, social learning was coded when participants named learning about participants' similarities or differences, common purposes, interests, values, or beliefs. Such learning is consistent with sociocultural types of learning outcomes that other researchers have found in informal learning contexts (Eraut, 2004; Leslie *et al.*, 1998).

This study also revealed that, although each conversation had a mix of reported learning outcomes, most conversations had a tendency for participants in that conversation to report similar types of learning. As reported in Figure 2, though researchers expected that participants in some conversations would report similar learning outcomes, they were surprised that 64 per cent (28 of 44) of the conversations were high-yielding in a single type of learning. The distribution of types of high-yielding

conversation generally mirrored the distribution of types of learning found, with the exception of social.

This may be due to two inter-related factors. First, only 52 per cent (23/44) of conversations included reports of social learning. Within those conversations, social learning outcomes represented a small proportion of reported learnings (M = 0.15, SD = 0.18). Given that the standard deviation was highly sensitive to extreme values, the presence of social learning was highlighted in our analysis when one-third or more of reported learnings in a cafe were social. Additionally, conversations that were high-yielding in social learning outcomes had, on average, fewer total reported learnings – 90 per cent (9/10) had below average reported learnings ($M = 5$) compared to the sample ($M = 8$). These data suggest that, in contrast to other conversations, the way cafe topics were framed may have influenced when and why social learning outcomes were reported. For instance, in one cafe high-yielding in social learning outcomes, the convener sought advice about how to communicate organizational values at her company. In this conversation, the group served as a sounding board for feedback, sharing their own experiences, providing advice and affirming her efforts. In another cafe, the topic centered around a member wondering about how the LILA community itself could continue to learn from one another between convenings. In both of these examples, the conversation that flowed from the topic brought out the differing perspectives of others, uncovered similarities and differences in members' experiences or brought common purposes/interests to the surface – key characteristics that define reports of social learning.

Several additional explanations emerged as researchers probed the rationale for the general distribution of types of learning and types of conversations found in this study:

Individual motivation and goals

The 79 unique participants in this study were a self-selected group of executives at high levels of leadership. They held titles such as "Chief Learning Officer" or "Chief Innovation Officer" and were in charge of dozens of subordinates, several units and directing large-scale strategies pertaining to learning and innovation in global organizations. Though researchers did not track the background, ethnicity, gender or areas of expertise of the executives for this study, their broad motivations and goals were known: they were drawn into the community because of their desire to learn with and from one another about emerging research and practices on human development and change. This was explicitly stated as part of the mission of the community. Executives who were not interested in this goal did not choose to take part in the community. As other research has suggested (Choi and Jacobs, 2011), the participants' learning orientation and motivation to be intellectually stimulated and learn from one another's practice may explain the high levels of reported conceptual and operational learning reported in Figure 1.

Community structures

Other characteristics about the community structure may explain the distribution of types of learning and conversations found in this study. At each of the events, the community invited leading researchers from around the world to share research and explore potential applications to challenges participants faced in their organizational contexts. These guests shared their ideas and work in interactive seminar formats that preceded the 44 informal, peer-led break out conversations that were sources for data in

this study. This approach may have led the conversations to be framed more toward conceptual and operational outcomes, as participants wrestled with making meaning of the speaker's content and how it may apply to their organization. Many of the topics were presented with language such as "How to […]" or "How can I […]". Although the different types of learning and conversations found in this study might generalize to other populations, the specific patterns of distributions of types of learning (Figure 1) and conversations (Figure 2) may be specific to this population and structure of the community studied.

The role of time

The distribution of types of learning, as well as the types of high-yielding conversations, may also be explained by two important temporal rhythms of the community: first, the data were drawn from conversations that occurred on the first and second day of six two-day community gatherings. The presence of more operationally "high-yielding" conversations on Day 2 may be due to participants becoming more motivated to translate ideas presented at the gatherings into their practices before returning to their organizational contexts. Also, increases in operational types of learning as the year progressed, as well as the occurrence more operational "high-yielding" conversations, may be due to participants becoming more knowledgeable over the year on the topics and at how to translate ideas discussed in the gatherings into their respective work contexts.

Second, the data were drawn from gatherings (Fall, Winter and Spring) that occurred over two years. Each Fall, a new theme began which would carry through the year. Almost all conversations in the Fall (13 of 14) were high-yielding in types of learning. Because an annual theme was being launched, perhaps conversational topics were framed in ways that yielded high levels of a particular learning type (e.g. about basic definitions and conceptual clarity). Recall that Fall events did not have significantly different overall distributions of types of reported learning when compared to Winter and Spring. Rather, reported learnings were more concentrated in particular conversations in the Fall. The comparison of declared topics warrants future exploration, though was outside of the scope of this particular study.

Qualities of participation and interaction may matter

Finally, the quality of how participants interacted with one another may also explain the patterns of observed learning outcomes and types of conversations. Drawing on the research memos that researchers wrote on each of the conversations, some interesting yet speculative trends were observed. Researchers noted that participants in high-yielding conceptual and high-yielding reflective conversations asked many questions and shared open-ended wonders to explore in the discussion. In these conversations, participants often contributed in evenly distributed amounts (e.g. similar amounts of talking time) and there were several moments in which participants attended to their process of discussion (e.g. checking in on goals and adjusting the strategy). In contrast, high-yielding informational and high-yielding operational conversations were strikingly different. In these discussions, researchers noted that participants were not asking many questions but rather sharing stories of practice or making statements. Instead of equal participation, there were one or two speakers who dominated the talking time and there was little, if any, attention to group process. The

quality of the interactions in specific conversations may also explain the types of learning that members reported. This raises an area for future research that looks more closely into the types of interactions, or "conversational moves", that are associated with different types of reported learning.

Conclusions

The learning outcomes of cross-organizational, self-directed learning conversations over periods of time is a powerful yet understudied source of informal, professional learning. This study has generated empirical evidence of five types of learning – *informational, conceptual, operational, reflective* and *social* learning – that leaders from different organizations report they learn from self-organized conversations over a two-year period. Although strong evidence of theoretical orientations of learning outcomes were found in the populations, generalized conclusions about learning should be drawn with caution. Because there was no pre-/post-evaluation component to this study, no claims can be made of changes in meaning-making, skill development or knowledge over time. Instead it reports evidence found in self-reports of learning from individuals at one point in time. The study does not make claims about what participants learned in terms of observable changes in an individual's knowledge or skill. Nor does this study conclude whether or how participants transferred knowledge and skills into future situations. Instead, the data collected reflected a linguistic representation of how participants wrote their responses. More lengthy interviews after the conversation, follow-up interviews and/or observations over time would reveal more robust claims about learning in terms of transference into action. That said, armed suggested types of learning outcomes facilitators and participants of cross-organizational learning conversations may be better equipped design contexts and evaluate the effectiveness of these contexts.

To create a foundation for further research on the topic, this study aimed to empirically understand what participants in informal, peer-led discussions self-report as "learning" from conversations. With the five types of learning now in hand, several lines of investigation are warranted. For example, the categories of reported learning can be tested in other contexts and populations that are engaged in informal learning. The distributions of types of learning, as well as the types of high-yielding conversations, could be compared with other professional communities that convene over different or similar time periods. Further, follow up with participants as they return to work could track the types of learning and how, if at all, they translate into more rigorous claims of changes in practice and/or thinking. Finally, further investigations are necessary to better understand and explain the relationship between the qualitative moves participants make in conversations and how they relate to types of learning participants report.

Notes

1. On average, each gathering involved 19 participants. Of 79, 47 participants (60%) took part in four or more of the gatherings. For more information on the community, see www.learninginnovationslab.org
2. Each year the LILA community explored an overarching theme (e.g., Weaving Wisdom in Organizations), and the year was broken up into three gatherings, each of which was two days long. The topics for the conversation cafes were declared verbally and ranged from questions

such "What does it look like to centralize, integrate and/or coordinate learning strategies and operations across a global organization?" to "How do you build organizational capability around capturing, sharing and enabling insight?" The data for year one of this project were collected in October 2009, January 2010 and April 2010; the data for year two in October 2010, February 2011 and April 2011.

3. An additional interpretation of Kappa statistics can be taken from Fleiss (1981) who suggests that all Kappas above 0.75 are "excellent".

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