Three Phases of Learning: Learning *in*, *from*, and *for* action

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Learning in today's organizations is becoming an increasingly difficult task. Fewer organizations are performing in simple, well-structured contexts in which employees simply apply knowledge and skills they learned in classrooms. Organizational learning in sectors such as banking, health care, and engineering, can no longer solely rely upon traditional forms of training because new knowledge and practices are emerging at a faster pace from everyday experience. For many decades the dominant model of imparting well-known knowledge and skills for predictable performances suited organizations just fine. But success in today's complex world requires different models of learning for rapidly evolving and complex settings. New, emerging forms of learning are necessary that leverage the informal, socially constructed, and action-driven realities of the workplace. Learning needs to be reframed as more an activity to be done for and within performance. Learning is something that is organized around performance. Understanding how to learn *in*, and *from*, and *for* (IFF) action is fast becoming paramount.

Take IDEO for example. For decades, IDEO has been celebrated as one of the most innovative design firms in the world, creating inspirational solutions across a spectrum of sectors. Their team-based, design thinking approach is well documented (Brown, 2009). However, what is less well known is how IDEO supports the learning and development of their creative workforce. At the center of their approach is not a formal training machine with classrooms and seminars aimed at developing skills and knowledge. Instead, the daily work in project teams is the catalyst for individual development. Designers work closely with their colleagues to identify skills and areas of knowledge they want to develop – ranging from veteran engineers wanting to become better at human factors research, novice graphic designers looking to develop their abilities, to project managers wanting to hone their client relationship skills. Once these goals are shared, the project work becomes the arena for personal practice and team feedback. Learning is seamlessly integrated into performance. When projects conclude, more experienced leaders join the team to reflect on the personal progress and team performance. Then individual designers carry forward these lessons to the launch of their next project. Though there are important questions to ask about such an approach, regarding efficiency and scalability, few could argue with its effectiveness: IDEO continues to be an icon of innovation.

Learning IFF Action Model

Emerging lessons from organizations like IDEO point to novel ways to integrate learning in the workplace. Learning in, from, and for action attempts to refocus current learning programs away from designing predominantly formal, out-of-the flow learning opportunities and toward layering learning moments around the flow of everyday work. In contrast to other learning models that have contemporary currency, such as blended learning or mobile learning, a learning "IFF action" model looks not at the mixtures of virtual and face-to-face learning opportunities, but at the temporal phases of learning in and around work activities. The coming paragraphs describe three distinct phases, each with their own affordances and challenges for individual and organizational learning.

Learning in action

Learning in action describes the development of knowledge and skills in the very moments of performance. It draws attention to the in-the-moment behaviors that support learning within the window of work. The landmark research done by the US Bureau of Labor Statistics suggests that roughly 70% of professional knowledge is developed in the everyday flow of

work activities, such as employee interactions during shift changes or while troubleshooting problems with clients (Frazis, Gittleman, Horrigan, & Joyce, 1998). Effective learning in action depends on knowledge building behaviors, such as seeking feedback, sharing information, asking for help, discussing errors, experimenting, monitoring performance, and planning during slack-time (Donnellon, 1996; Edmondson, 1999; Hausler, Klampfer, Amacher, & Naef, 2004; Salas, Burke, & Stagl, 2004; Scardamalia, 2002). For example, Edmondson, Bohmer, & Pisano's (2001) study of cardiac surgery teams learning to perform operations with stent technologies revealed that the most effective teams did not differ from other teams in their formal classroom training or post-operation debriefings. What made them more effective was their in-the-moment activities of speaking up, giving feedback, and pooling ideas. In increasingly uncertain and complex contexts that require fast responses, learning in action is a crucial component of individual, team, and organizational learning.

Of course, learning in action bumps up against very real challenges. The sheer volume of information and data can make it difficult for individuals to focus attention, distill patterns, and learn new knowledge and skills. In the face of pressures to perform, few employees may have time for testing ideas, gathering feedback, and integrating new knowledge. Effectively capturing and transferring emerging knowledge across teams or functions is difficult. Moreover, as Harvard cognitive psychologist Dr. David Perkins points out, in the midst of action individuals and teams are prone to problem blindness: the inability to detect novelty and anomalous data. When we are in the flow of our activities it is difficult to remain open and attentive to discrepancies. And, even if we are, creating radically new actions and transforming our assumptions requires time and reflection. This brings us to our second phase of learning: learning from action.

Learning from action

Decades of good learning practices in organizations have been built upon a prevailing principle: knowledge and skills are developed through reflection on direct experience. Perhaps the most famous of these approaches is the US Army's "after action review" process in which military personnel engage in a retrospective reflection of a mission in order to distill out lessons learned. Learning from action describes the moments after performance that aim to extract patterns and insights in order to inform future practice. Such moments are valuable because they can provide opportunities to question prevailing assumptions, elicit multiple perspectives, and revise beliefs about goals, values, and performance criteria. By stepping away from the fray of everyday action, these out-of-the-moment structures promote double-loop or transformative learning (Argyris & Schön, 1996; Kegan & Lahey, 2000). Team debriefings, post-mortems, and discussing lessons learned each aim to support a deeper level of learning in individuals, teams, and organizations.

Similar to learning in action, learning from action faces formidable challenges. Many organizations display a bias towards action. Moments of reflection are often seen as not part of the "real" work. After a project concludes, individuals often turn to the next challenge or work assignment coming their way. The day-to-day flow of urgent matters makes it difficult to support learning from action. Even when moments for reflection are created, many individuals may not feel safe raising dissenting opinions or discussing errors. Scape-goating, blame, and threats to power can easily undermine the promise of learning from action. When discussing experiences, several inherent psychological biases can skew sense-making. Confirmation bias is a tendency to interpret information in a way that confirms one's prior beliefs. And hindsight bias, the inherent inclination to believe that events occurred more predictably than they in fact did, creeps in. Biases such as these are hard to keep in check but can through practices such as creating "devil's advocate" roles (Schulz-Hardt, Jochims, & Freya, 2002) and using group facilitation protocols (Wilson, Perkins, Bonnet, Miani, & Unger, 2005). But even when we can keep them in check, once lessons and insights are captured, codifying and communicating insights to others is rarely easy. Choices about how to represent the knowledge learned and level of context to include affect the transfer of learning to future performances. This brings us to our last phase: learning for action.

Learning for action

Traditional approaches to learning, such as classroom training, workshops, and webinars, attempt to develop knowledge and skills prior to performance. These interventions occur out of

the flow of action and create dedicated time for skill development and practice. Such moments are important. When well designed they are safe settings in which learners can practice, fail, and get targeted feedback to improve their knowledge and skills before they use it in higher-stake work settings. Simulations, role playing, and case-study pedagogies are examples of approaches that aim to effectively support learning for action.

However, the downsides of learning for action are well documented (Carlile, 2004; Marsick, 2003; Swap, Leonard, Shields, & Abrams, 2001). Transferring what is learned back into arenas of action is difficult, particularly when the knowledge is complex and old habits must be forgotten. Maintaining relevant and updated content to be learned can often lag behind the new knowledge and information that is rapidly emerging from practice. Time constraints and demands for accelerating learning complicate this even further. And there are developmental challenges as well – novices learners with little experience or repertoire need different sorts of scaffolds than those with more experience. Several approaches, such as just-in-time peer consultations (Greenes, 2010) and baton-passing (Newman, 2004) attempt to address challenges of complexity, speed, and needs for scaffolding when learning for action.

Effective learning in today's (and tomorrow's) organizations needs to harness and connect the learning potential that exists across the natural phases of everyday work. Integrating learning into a way of work requires a shift towards viewing learning in action as the primary point of impact, and learning from and for action as important supportive moments for knowledge and skill development.

	Learning *in* Action	**Learning *from* Action**	**Learning *for* Action**
Main Affordances	• Occurs in the flow of practice • Knowledge and skills are on display in everyday activities (e.g. problem-solving) • Environment offers immediate feedback and access to results	• Extracts patterns and deeper insights from experience • Opportunities to question assumption and beliefs • Supports double-loop, transformative learning	• Dedicated moments for developing new knowledge and skills • Lower risk settings for failure and practice
Key Challenges	• Volume of information • Problem blindness • Time • Urgency to perform limits potential to transform	• Action bias • Social safety of participants • Interpretative biases • Codification and sharing insights	• Designing for transfer • Relevancy and time lags • Accommodating developmental needs
Some Approaches	• Help seeking and knowledge sharing routines • Norms of error detection and discussion • Planning during slack-time	• After-action reviews • Debriefings • Post-mortems • Lessons learned	• Classroom-based learning • Simulations • Pre-mortems • Case studies • Peer assists • Baton passing

Three Phases of Learning: A Framework for Learning In, From, and For Action

Integrating across phases: Lessons from Qualcomm

Other innovative organizations besides IDEO are redesigning approaches to learning with these phases and mind. Qualcomm, one world's most successful wireless technology firms, is one. Similar to IDEO, Qualcomm also prides itself on its ability to quickly adapt and innovate in their fast-paced sector. Developing leaders to abilities to effectively coach and communicate with their reports is crucial given the speed of their marketplace. However, supporting leaders to systematically learn such skills was a challenge. "In our business few leaders can take extended days off to be part of a training workshop," says Rita Buffington, Senior Director of Learning at Qualcomm, "And even if they could, we know they learn more on the job, not from a course." When Buffington and her team revamped a key leadership develop program for senior managers, they shifted their focus from an overreliance on learning for action, to an approach that uses classroom techniques to support how leaders learning in and from action.

At the heart of Qualcomm's 12-16 month "Excellence in Leadership" program are cohorts of 25-30 leaders undertaking weekly job assignments that aim to develop the in-the-moment skills of personal awareness, developing team strengths, and effective coaching. Leaders share their experiences and reflections in small groups on an internal social media site for feedback and discussion. Dedicated staff facilitate the interactions among leaders as they post comments, pose questions, and share tips based on their experiences. There are a few face-to-face sessions throughout the year, but the bulk of the content leaders learned given every few weeks via short and highly sculpted webinars that provide new strategies for them to fold into their practice.

Moving towards an approach of learning in, from, and for action of course had important challenges. Foregrounding learning in action demanded that content in the program be radically reformulated from a class curriculum. It had to be broken up into smaller bits that were clearly connected work processes and were presented in crisp formats. Designing learning from action approaches required investing in hiring savvy, dedicated staff to facilitate group reflection. And these discussions required virtual and physical spaces that were accessible and safe. But the upsides have been worth it. "Compared to our older training models, the learning is much stickier," Buffington reports. "We used to lose 80% of our participants after the first month, but now we have almost 100% retention rates in the 150 managers who voluntarily enroll in it annually."

Looking to the Future

As leaders look to the future of how learning should be designed, IDEO and Qualcomm are important beacons. Each signal a shift away from the traditional forms of learning that are systematically failing to address the increasingly complex and fast-changing performance contexts in many organizations. In recent years, progressive forms learning in organizations, such as action-learning and communities of practice, have gained ground in part because they foreground the need to localize learning in the everyday experiences of individuals (Raelin, 2008). To build on this tradition of work, we suggest the shorthand "learning IFF action" to focus on how learning occurs across the phases of learning in, from, and for action. The phrase "IFF" also has an interesting secondary meaning. In the domain of mathematics it means "if and only if", a bi-conditional logical link, that suggests that learning occurs if and only if there is action, and action occurs if and only if there is learning. This logical definition feels appropriate to the challenges organizational learning faces in the coming years. Effective knowledge and skill development in tomorrow's workplace can only occur through supportive actions in and around everyday work. And effective action in tomorrow's workplace can only occur through learning practices that are embedded in everyday work.

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