

Management across frontiers

Having identified psychological safety as a crucial factor for effective teamwork and learning in organizations, **Professor Amy Edmondson** is now exploring the complexities of collaborative activities that span conventional boundaries

Can you outline the main aims of your present investigations?

My long-standing interest has been in how organizations learn and, cognitively and structurally, what the major factors are that prevent them from doing so. My central focus has been the interpersonal dynamics that produce learning or non-learning responses.

Over time, I have seen more and more examples of dynamic collaboration that doesn't take place in stable teams. I refer to this as 'teaming', and I have observed something that is really on the rise: teaming across boundaries. We have long studied the need to team up across boundaries within a firm for, say, product development, but what about teaming between a company and its customers? Or when different companies come together to produce a complex and novel outcome for a complex customer?

How has your understanding of organizational research and the design and management of organizations changed over the years?

That's a big question! Also, it's not one for which I have a ready answer. What interests me most about this question is new and growing pressure, though maybe still too little from my point of view, to carry out research that's useful, that informs practice, that matters. If you go back to the 1940s, 50s and even 60s, people in management-related fields were focused on useful research. They asked the big questions of how best to grow the economy and grow people. Then, over the years, we progressively entered a rut that can be described as interested in academic theory for academic theory's sake. The world is full of very complex and important challenges. We should tap into the resources of people who are paid to conduct research and who are in places of higher learning, to solve these problems.

Your latest book, 'Teaming', focuses on organizational learning and leadership. How does your approach fit within the overall landscape of organizational and team building research?

The book fits within, but is not entirely written from, an organizational behaviour perspective; it's a bit more integrative. Years ago, before I started graduate school, I took seriously the promise that organizations can be run better, and that people could be better used and developed. I read some wonderful books— In Search of Excellence, for

instance. Now 40 years later, many of the books that came out, including mine, offer some of the same advice that we've known for years – related to organizational learning or engaging people in meaningful work. So I became interested in the problem of why that is we have so much trouble doing what we know is better. What are the human and cognitive forces that get in our way?

What have your studies unveiled about the value of 'teaming across industries'?

Teaming across industries, I would argue, is vital for innovations in certain sectors and domains, yet, it's really, really difficult. We, as human beings, are not good at it, in part because of what I call 'culture clash'. Cross-industry teaming is a double-edged sword – both essential and difficult. It's difficult because we take for granted the assumptions that come with any profession that leads us not to have a spontaneously easy time. It's not just jargon, but also values, timeframe, and more. One of the big themes of the book I'm writing for Emerald is about values, timeframes, and what each industry tacitly believes matters most.

As a teacher, what is the value of case studies and simulations in engaging and inspiring students?

I think the value is immense. It is an opportunity to step outside one's own world, one's own perspective and into another's. A well-written and engaging study can allow you to understand the struggles facing a real person in a real organization. You are able to think through those issues in a specific context and thereby discover what works. Case study learning is literally a process of discovery. It's very powerful when done well; this is how adults learn. A lecture, while it may be very interesting and insightful, doesn't compare to putting yourself in a situation and thinking your way through it. Both case studies and simulations can do that, in slightly different ways. They are more likely to surprise and engage the learner.



Research that matters

Studies of team dynamics and organizational learning at **Harvard University** point to a need for highly agile managers able to deliver innovation using diverse structures and expertise

ADVANCES IN SCIENCE and technology have led to an increasing need for deeper insights in particular subject areas. The quantity of knowledge now available has consequently given rise to a growing number of specializations, resulting in fragmentation of expertise. At the same time, consumer tastes have become more and more sophisticated, veering away from the mass-produced consumables favoured in the 20th Century towards more complex products, often comprised of many parts, and usually with a requirement for customization to individual needs.

Dr Amy Edmondson, Novartis Professor of Leadership and Management at Harvard University and author of 'Teaming: How Organizations Learn, Innovate and Compete in the Knowledge Economy', points out that these conditions mean that firms in consumer and business markets face problems that are increasingly 'wicked', with many intricate interdependencies. For innovation in the 21st Century, the exchange of knowledge between specialists in different technologies and scientific and technical disciplines is a necessity. To solve 'wicked' problems and meet the needs of multiple stakeholders, enterprises are therefore finding that they need to embrace collaboration in projects that span organizational boundaries, not only between departments, but also with other companies and even other industries. Edmondson notes that the ways in which enterprises then meld the diversity of functions, interests and viewpoints in collaboration to expedite discovery and development is, in research terms at least, a grey area.

SAFETY AT WORK

By investigating field research into organization behaviour and operations management in hospital healthcare – a study that originally sought to show that effective teamwork led to fewer medication errors – Edmondson found that the teams that scored highly on team

effectiveness survey measures seemed to have more errors than poorly-coordinated teams. This puzzling finding initially led her to investigate specifics, such as whether the better teams, which were also better-led according to the survey measures, were given patient cases of higher severity than poorly-led teams. This analysis only showed that the positive correlation between error rates and effective teamwork increased. This ultimately led her to the groundbreaking conclusion that better teams were not likely making more mistakes, but rather were more willing to report and discuss them. A climate of openness in better-led teams had made it easier for members to identify, report, and even admit to error; poor relationships between leaders and members, on the other hand, was conducive to underreporting. This finding led Edmondson to identify 'team psychological safety' as central to organizational integrity.

In later work Edmondson concluded that team members were more likely to speak up, even under difficult circumstances, if team leaders demonstrated humility and interest in individual viewpoints. She also discovered that mixed messages from leadership about experimentation and learning did more damage than a clear negative message. Uncertainty and anxiety caused by mixed messages, accompanied by management pressure to succeed, led team members to avoid risk and thereby inhibited experimentation.

TOWARDS A LEARNING ORGANIZATION

Edmondson tested her team psychological safety theory in a project on learning curves in healthcare, which was set up to evaluate adjustment of operating teams to a new minimally-invasive heart surgery technique that offered quicker patient recovery. She found that there were distinct differences among the 16 hospitals involved. Whereas some outperformed others in learning the new technology, more than half abandoned the innovation altogether soon

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after the initial training period. From her qualitative and quantitative field data, Edmondson and her colleagues were able to attribute this disparity to differences in style of operating team management. The teams that successfully learned and implemented the technique were led by surgeons who structured the implementation process as a team learning ‘journey’; those which failed were led by surgeons who had underestimated the behavioural changes that they and their team members would need to make.

In Edmondson’s terms, team psychological safety transcends such elements as trust, in that it comprises a complex mix of organization culture, leadership behaviour, team member interactions, and sometimes personality traits. A psychologically safe team is characterized by ease of communication and the ability to resolve conflicts into productive outcomes. Barriers to effective teamwork include interpersonal fear, which often produces ‘groupthink’ and withholding information, fear of failure, and dysfunctional power dynamics.

Edmondson asserts that it is only when teams – real or virtual – within a large organization work well together that the organization thrives. For an organization to learn, and adapt successfully to change, its teams need to be able to work synergistically. Moreover, the learning framework should also be moulded to the type of work in question. In addition, team leaders should encourage reflection and create a psychologically safe space in which team members can work, so as to overcome the defensive interpersonal dynamics that inhibit idea sharing and innovation.

CROSS-BOUNDARY TEAMING

While cross-boundary teamwork is necessary for 21st Century innovation and development, it is also difficult to manage. People’s differences in perceptions, values and interpretations lead to differences in logic which can then manifest as interpersonal relationship difficulties. Building on her work into team interpersonal safety, Edmondson has recently explored how organizations in different industries or domains – from construction to healthcare – manage the process of teaming up with others in various contexts.

Her studies, which have looked at innovation to produce radical innovation in the built environment, crisis rescue operations, the introduction of art and technology for improving people’s experience of healthcare, and leveraging the maker movement, form the basis of an upcoming book ‘Teaming Across: When People from Diverse Industries

Work Together in Complex Projects’. Edmondson is co-writing the book with Jean-François Harvey, a Postdoctoral Researcher at Harvard Business School.

RESEARCH WITH REAL IMPACT

“I’ve been lucky to be quite well exposed to how work really gets done, and how complex work is really completed,” says Edmondson, who originally studied engineering, and in the 1980s served as Chief Engineer for the visionary inventor and architect Buckminster Fuller, managing the construction of two prototype geodesic dome innovations. This experience, alongside subsequent years as a management consultant to a wide range of organizations in a variety of industries, inform Edmondson’s approach to her research. Edmondson holds that while contributing to the body of organizational theory, her work must produce practical results in the shape of management concepts, strategies and tactics that will have a positive impact and help organizations to succeed.

Edmondson has adopted three main tenets to make her research useful and contribute to its large impact: start with an important problem, enter the field (of real practice in real organizations) early (and often), and have the courage to collaborate across the boundaries of organizations and disciplines. “Real world problems don’t come to us in disciplinary buckets; they are nearly always more multidimensional than that,” she explains. Edmondson believes outstanding business leaders in the future will be ‘multilingual’, by which she means capable of readily navigating across all kinds of boundaries: “They will have the ability to go in and out of different professional mind-sets, and get up to speed quickly with what people care about or are missing in a group,” she clarifies. “We still have a strong tendency to value and fund the deeply-disciplinary, expertise-driven type of work. We need to find a way to value people with specific expertise who are also able to cross its boundaries.”

PROFESSOR AMY EDMONDSON

EXPERTISE

- Leadership
- Team learning and organizational learning
- Psychological safety
- Error and failure

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received her PhD in Organizational Behaviour, MA in Psychology and BA in Engineering and Design, all from Harvard University. Her appointment as Novartis Professor of Leadership and Management represents her commitment to leading the creation of successful business enterprises for the betterment of society. In addition to authoring over 70 articles on leadership, teams, innovation and organizational learning, Professor Edmondson has written two recent books: *Teaming: How Organizations Learn, Innovate and Compete in the Knowledge Economy* (Jossey-Bass, 2012) and *Teaming to Innovate* (Jossey-Bass 2013).

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