The Evolution of Entrepreneurial Instruction: Action Learning at MIT Sloan

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US Business Schools: Seeking a New Approach to Instruction and Learning

Starting as early as the 1950s, business schools have faced numerous criticisms, the most notable leveled within two reports funded by the Ford and Carnegie foundations, respectively entitled *Higher Education for Business* (Gordon and Howell, 1959) and *The Education of American Businessmen: A Study of University-College Programs in Business* (Pierson, 1959). The reports noted that while the field of business yielded the new practice of management science, there was no consistency or standard curricula across programs. In response to these reports and other external pressures, business schools moved to gain greater legitimacy within the broader university context by hiring faculty from the arts and sciences and increasing their emphasis on rigor and theory. While the shift was initially viewed as productive in elevating the scholarship of business schools and introducing important management theories, after various programming and curriculum redesigns, scholars noted that over the years the gap between the skills acquired within MBA programs and those managerial competencies linked to job performance persisted, despite various curriculum redesigns by business school leaders.

As the critiques of business schools have grown more intense, scholars and industry leaders have pushed business schools to reconsider their approach to management education. To address an increasingly dynamic and globalized business environment, business schools have adopted an approach to assist students in managing and leading within a dynamic globalized environment by incorporating experiential learning opportunities such as project-based learning into their MBA program design.

A Shift Towards Experiential Learning

Experiential learning, a philosophy of education based on what John Dewey (1938) called a "theory of experience", draws on the work of prominent 20th century scholars who place experience at the center of theories regarding human learning and development. These thought leaders included John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Ed Schein and David Kolb. Over time, business schools have synthesized their insights from experiential learning to frame an approach for incorporating project-based learning into their curricula.

MIT Sloan has sought to enact their interpretation of project-based learning with a model it calls *Action Learning*, one of its primary methodologies for learning and instruction. A significant investment of faculty and staff time and attention, MIT Sloan has utilized this approach to develop a portfolio of learning opportunities that challenges students to draw from and apply their learnings from previous professional, education and personal experiences, as well as their Sloan classroom work, to help real organizations address real business management challenges. Students draw profound insights from these real-world experiences, enhancing their academic experience and further preparing them for their professional life after graduation.

Action Learning in Management Education

Management education scholars, as well as industry executives, recognize Action Learning as an effective method for developing an individual's willingness, ability and capacity to manage real-world organizational issues. This is accomplished through the challenge of addressing complex managerial issues with a focus on crafting concrete, practical solutions. The classical (or original) Action Learning design involved a small group of employees within an organization, called an *action learning set*, who work together on a work-related problem. Their collaboration, it was believed, would generate novel and innovative ideas through an open dialogue and trust, building on their prior knowledge and experiences. Creating an environment where assumptions and beliefs could be challenged, it was felt, would stimulate ideas for action, which could be tested in practice. Key to the design was that individuals would also be able to identify personal challenges while drawing on the experience of others ➥

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to create viable solutions to the presenting issues. Thus, action learning was designed to support individual learning about the business challenge as well as about oneself.

Over the past few decades, Action Learning has been adopted, modified and expanded by business schools to fit the needs of their relevant stakeholders, most notably the students. However, the key elements of the approach remain the same: to advance managerial learning and development. MIT Sloan's interpretation of the classical action learning approach draws from its engineering roots of "learning by doing", using engagement with external organizations and their real-world business challenges as a vehicle for learning that challenges students' assumptions and transforms their mind-set.

On the Ground at MIT

MIT's motto *"Mens et Manus,"* Latin for *"Mind and Hand,"* reflects the education principles of MIT's founders who espoused a belief in the practical application of education. Drawing from its motto, MIT has emphasized "learning by doing," including, since its founding in 1865, the blending of applied science and engineering. Starting in 1914, the first business training – Course XV – was Engineering Administration. The Sloan School, conceived and funded by MIT alumnus Alfred P. Sloan, Jr. in 1952, (Class of 1895), was specifically designed to solve the complex problems of modern industry and management through the application of a scientific and technical approach.

MIT Sloan Action Learning blends the key constructs of educational institutions (such as scholarship and research) to provide a more robust and relevant learning experience for students. Action learning in management

education begins with the notion of the learner at the center of learning. Student work is supported by an instructor whose role is more like that of a facilitator than an expert providing prescriptive solutions. In addition, the model utilizes the power of small peer groups, where self-directed learning and reflection are key components to acquiring new knowledge. Learning is thus structured around real-world complex and ambiguous business challenges.

Through this process, students develop skills in critical thinking and problem-solving; integrated problem framing; assessment and integration using incomplete information. Students also gain a greater global perspective; creative and innovation skills; advanced written and oral communication skills; a stronger ability to assess risk; an appreciation of ethical and moral boundaries; and an understanding of the complexity of business roles and responsibilities.

The Launch of Entrepreneurial Instruction – The Evolution of Action Learning at MIT Sloan

While there are no formal records of the first Action Learning course at MIT Sloan, it is notable that as early as 1964, Professor Ed Roberts created an elective course on the Applications and Implementation of Industrial Dynamics, in which student teams worked with local companies to build System Dynamics models of company problems for senior business leaders.

The modern MIT Sloan Action Learning model first emerged in 1992 with the launch of Entrepreneurship Lab (E-Lab), an elective course offered in partnership with MIT's Entrepreneurship Center (now known as the Martin Trust Center for Entrepreneurship).

The course was designed to provide teams of management, science, and engineering students with an intensive, on-site experience working with metro Boston area high tech start-ups on critical business challenges.

E-Lab laid the groundwork for the launch of Global Entrepreneurship Lab (G-Lab) in 2000, which has become MIT Sloan's largest Action Learning offering, with class sizes that have ranged from 120 to 180 primarily second year MBA students. MIT Sloan's "labs" (the school's shorthand for its project-based learning courses) have grown to include a portfolio of more than fifteen different opportunities for students who seek to explore different regions of the world (e.g., China Lab, Israel Lab, USA Lab) or specific disciplines (e.g., Healthcare Lab, Operations Lab, Analytics Lab).

Most Sloan labs have used G-Lab as the model for their own course design.

MIT Sloan's Flagship Action Learning Offering: Global Entrepreneurship Lab

The Global Entrepreneurship Lab (G-Lab) was launched in 2000, when Professors Simon Johnson and Richard Locke sought to design a course that would draw attention to emerging market economies. Johnson and Locke believed emerging markets were largely being ignored by economists and business schools, as their focus tended to be on multinational organizations based in Western countries. They surmised that by working directly with entrepreneurs in emerging markets, students could gain first-hand insights about the structural characteristics that support business development, those constructs that make doing business challenging, and the innovation designs that help bridge the gap of bringing sellers and buyers together. ➲

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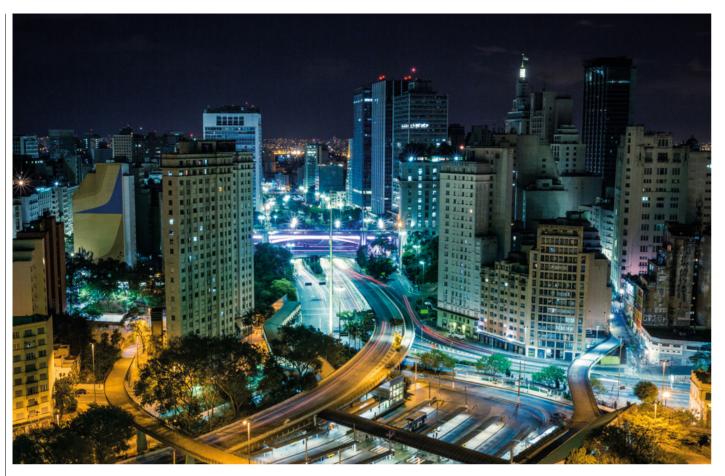Over the past twenty-years, G-Lab has worked with 482 companies

643

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54

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2,437

In that time 2,437 students have participated

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Furthermore, Johnson and Locke felt that connecting students and emerging market entrepreneurs would result in mutually beneficial learning, as the entrepreneurs would, through the students, have access to the broader burgeoning MIT entrepreneurial ecosystem.

Over the past twenty years, G-Lab has worked with 482 companies, on approximately 643 projects in 54 countries. More than 2437 students have participated in G-Lab since its inception, significant given the size of the business school. Over this time, one of the key goals of the course has remained the same: Provide concrete, realistic, actionable recommendations to address a company's most significant business challenge.

G-Lab targets start-ups and fast-growing scale up companies in emerging markets as hosts in order for students to be able to connect with key decision makers during their project work. Most hosts are approximately five to seven years old, at a strategic or operational inflection point or poised for significant growth, looking to scale, have approximately $1 to $15M USD in revenue, and 5–8 people in senior management. Many G-Lab hosts are on the cutting edge of

business trends, such as mobile apps, fintech, cryptocurrency, edtech, agribusiness, ride-hailing, and clean energy. Projects tend to fall into one of the following categories: New Market Entry, Strategic Growth, Fundraising/Venture Capital, Marketing, Pricing, Financial Modeling or Human Resource. The diversity of company types and business challenges allows for a wide range of learning opportunities for MIT Sloan students, as well as for the faculty that support their project work.

Through this collaborative and highly interactive project engagement, entrepreneurs in emerging markets gain access to the most current and evidence-based scholarship via the students' research. The students provide their sponsoring entrepreneurial hosts access to MIT's extensive library resources, as well as faculty research. This makes the students' final deliverable- which is fully defined by the host- extraordinarily valuable. After almost a decade of tracking project outcomes, between 92 and 96 percent of host companies indicate they have implemented student recommendations or plan to do so within four to six months.

The Structure of G-Lab

The experiential design of G-Lab means that the course is constantly evolving. Surveys of sponsoring host companies, students, participating faculty and other stakeholders contribute to a reassessment each year to understand what works and areas for improvement.

During the months before the course begins, students are asked about their expectations and learning objectives. This information assists the faculty in understanding how to best support the students when the course officially begins in September. Students are also supported in forming diverse teams of four, where different professional and personal experiences lead to stronger teams that are more equipped to tackle the ambiguity of project-based learning and provide deep insights during inevitable peer learning interactions.

Submitted host company questionnaires are viewed by students when classes begin. Faculty meet with each student team to offer guidance as they work to develop a list of projects they feel best meets their teams' interest and skill strengths. In mid-September, G-Lab faculty will review the host company questionnaires and student team application project request, to match host companies with the best qualified teams. At Sloan, student teams conduct research, interviews, and analysis, and connect with other MIT faculty not associated with G-Lab to assist with their project work. While strategic thinking and analysis is the foundation of G-Lab, teams are tasked to place a strong focus on creating tangible "leave-behinds" so host companies can put the team's concrete recommendations to work immediately. Teams deliver tools such as go-to-market roadmaps, financial models

and spreadsheet templates, pitchbooks, HR manuals, potential customer or investor pipelines and screening filters, and M&A and valuation toolkits.

The Benefits and Challenges of Action Learning in Management Education

The perceived benefits of incorporating action learning instruction into management education curriculum extends to students, participating institutions, and the companies that work with the student teams. For the students, they have the opportunity to test their knowledge in a real-world situation. In addition, they develop leadership skills as issues of ethics, project management, negotiation and team building are prominent features of project work with external host companies, particularly where institutional structures that support businesses are emergent or under-developed. Working with an external host naturally lends itself to ambiguity; therefore, students must be self-directed, willing to learn through and with others, and focus on developing their problem definition and scoping skills in order to help the organizations with whom they are working move to action.

For participating companies, they are able to forge direct and indirect relationships with the university and participating faculty and learn the newest business practices. They have the opportunity to work with talented students who provide usable recommendations and other deliverables. Hosts also build a network of (or access to) potential employees or, as in the case of several of our former G-Lab hosts, invite former students to serve as company board members. ➲

> **Through its design, G-Lab looks to place the student at the center of the learning process**

The challenges presented by action learning adoption in management education tend to be linked to programmatic objectives, staffing, and sponsoring host company engagement.

Unlike traditional classroom lectures, using a project as a vehicle for learning can make articulating course learning objectives with specificity and intentionality difficult since faculty must work with the issues each unique project brings. Even finding the right faculty to work with students from managing the entire course to supporting specific teams, is subject to this uncertainty. It is working with the unknown, and by extension the work involved with developing new material in real time to meet students' needs, that makes faculty hesitant to take on this work. The traditional model for instruction in higher education is for the faculty to be the expert; having a course that asks faculty to be a vulnerable and engaged learner along with the students, is not a position that most want to take on.

Project work generates many variable projects, location, sponsoring host, team dynamics, faculty engagement which must balance many different interests and desired outcomes, which are not always aligned. Further complicating matters are the hurdles that emerge when faculty try to develop academic content in advance, since the progression of each project is situated in the real world, impacted by real world events. When working with entrepreneurs, this can be particularly challenging as their companies lack the stability and infrastructure to withstand even small shocks to their businesses.

Institutional resistance generally comes in the form of challenges to the resources needed to execute this type of program. Intense staffing demands and the high outcome variability, make some institutions resistant to offering this type of programming to their students. Many business schools may have a limited action learning initiative to minimize costs, while others have developed creative funding streams that charge host companies fees to cover overhead.

Most business schools identify resourcing projects as their biggest challenge. While many rely on word of mouth, alumni, previous sponsors, personal networks, and more recently, vendors that identify companies for schools, the real issue is not necessarily finding companies to participate but finding the right companies that will develop a project that meets the needs of the school, the course or initiative, and the student teams. In finding the right fit, business schools must find companies that understand the project is part of the students' learning; the students are, in fact, still students with many other demands on their time and attention. From the host company's perspective, the work with student teams can feel like a traditional consultancy engagement in terminology, design and expected impact. Students working on these types of projects take on a significant role as they are often welcomed into these companies as trusted partners and given access to confidential information.

They walk a fine line between one setting where they are fully known as a student; and in another, working closely with a company decision maker, expected to manage this relationship and make decisions regarding their work that can have a significant impact on the business. Faculty, students and host companies must resist the temptation to frame the project work experience as purely a consultancy engagement as this may marginalize the impetus of the course or initiative to support student learning.

Preparing Business School Students for the Future

Students come into these project-based learning course primed to advance their knowledge of key management tools and analytics. Learning is then focused on particular content areas (e.g., entrepreneurship) during the classroom component of the lab courses. Learning is amplified when students put their knowledge into action by taking on experiences working with organizations to solve real-world management challenges. Students reflect on their experience throughout the project process, gaining greater insight of management theory and practice as well as understanding their own leadership skills. In short, this approach to learning is integral to providing students with the theoretical and practical skills they need to be successful management and industry leaders.

While the traditional lecture and case study method can offer an opportunity to discuss and reflect on the practical application of management theory, MIT Sloan's Action Learning approach extends this idea to provide a forum for students to actively link their classroom learning and prior experience with the knowledge gained through their project.

What's Next?

We continue to evolve as we recognize the increase in complexity and ambiguity facing leaders in our business world. We continue to emphasize integrating knowledge between disciplines, faculties, theory and practice. Through its design, G-Lab looks to place students at the center of the learning process, to assist them in critically examining their insights, becoming more self-aware and enhancing their academic experience as they prepare for their professional life and a life of impact. ■

About the Author

Michellana Jester is a lecturer and course faculty lead at MIT Sloan School of Management. Jester came to MIT Sloan with more than fifteen years of management consulting, human resource, and organizational development experience.

At MIT Sloan, Jester draws from her private and non-profit sector experience to assist students link theoretical management concepts to real world business challenges. She leads the design and delivery of MIT Sloan's largest project-based course, as well as recruiting host company partnerships that align with the program's goals and Sloan's mission.

Jester has been featured in Financial Times, Fast Company, The Smart Manager and the Boston Globe. She has a Master's Degree from Harvard University and Doctorate from Columbia University.