

CURRICULUM REFORM: GETTING MORE MACRO, AND MORE MICRO

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10/31/11, forthcoming, *Journal of Management Development*

Abstract

UC Berkeley's Haas School of Business pursued curriculum reform using a barbell approach. The macro end is pinned down with a leader archetype, that of an innovative, path-bending leader, plus a supporting and explicit culture now deeply embedded in admissions. The micro end is pinned down with a set of ten capabilities that are extended and integrated throughout the curriculum (e.g., problem framing). The connection to action is achieved through a new requirement in experiential learning that allows students to select among many options (e.g., a Cleantech-to-Market course). The school followed a particularly high-touch approach to gain the buy-in of its faculty.

Introduction

“To what end all this curriculum change? What tethers the ‘vision’?” Every Dean has received such questions – from a Board member, alum, faculty member, whomever. Another common question: “Let’s get concrete – exactly what will these graduates be able to do that sets them apart?” In today’s business school marketplace, there is less room for, and tolerance of, more traditional ‘middle-ware’ curriculum reforms that outline changes, but fail to articulate a higher-order destination, or a set of concrete enabling skills.

This article addresses our experience here at UC Berkeley’s Haas School of Business and some resulting lessons. Starting in the fall of 2008, we spent 18 months working with students, alumni, recruiters, and faculty. In February 2010, we launched our curriculum reform and strategic plan. That plan was unanimously voted into effect by our faculty. This is not to suggest that we got it

exactly right, or that these lessons generalize to every geography and context. I have done my best to keep the focus below on the most applicable lessons.

More Macro: The Vision End of Curriculum Reform

One could start with the vision of becoming top “n” in some appropriately defined competitive set. This is a natural starting point and was on the table early on here at Berkeley-Haas. It is rarely a compelling response to the “What tethers the vision?” question, however.

We chose instead to tether the macro end of our curriculum reform effort with two elements: 1) a leader archetype and 2) a supporting culture.

The leader archetype we chose was that of a *path-bending leader*. I motivate it with both internal and external audiences as follows. My children are young, 8 and 11. I think about their lives differently than my parents thought about mine. Specifically, our world economy is on a number of paths that simply cannot continue the nearly straight-line continuations they have been on over recent decades. A straight line will hit a wall, certainly in our children’s lifetimes, if not our own. Examples include healthcare expenditure, energy use, public education, the economics of aging, carbon, global access to safe water, and so on. At the same time, we can be optimistic because these “unsustainabilities” are also enormous commercial opportunities, and we all know the power of market forces—when supported with the right ingredients—to change our world. Key to getting this right is having the right human capital to bend those paths. Path-bending leaders are not just CEOs, but people working at all levels in all kinds of organizations. Path-bending leaders need to know the fundamentals, of course—the Accounting, the Finance, the Marketing, etc. They also need a set of skills and knowledge that are targeted to produce this type of leader, such as problem framing, experimentation, influence without authority, managing ambiguity and others. (I provide more detail below where I address curriculum “micro”.) We have built our curriculum to emphasize these targeted capabilities. In fact, the capabilities are what integrates our curriculum. It is all aimed at providing our future with as many innovative, path-bending leaders as we can.¹

The second tethering element of the macro end of our curriculum reform is our targeting of a supporting culture—a set of norms, values, and expectations that support path-bending leadership. The culture had to achieve other aims as well, of course. We wanted the culture to contribute to our graduates’ advantage in the marketplace. And we wanted it to codify what is really here, rather than create something that would feel empty. The notion of codifying what is already here is part of finding, rather than creating, our voice. We were moving from an implicit culture to an explicit one.

To start that process, we articulated our culture in four principles:

¹ For more on path-bending leadership, see my 2010 keynote at the Graduate Management Admissions Council conference: <http://bit.ly/ov3l9G>. The public version of our strategic plan is at <http://bit.ly/hA8gLj>.

Question the Status Quo: We lead by championing bold ideas, taking intelligent risks, and accepting sensible failures. This means speaking our minds even when it challenges convention. We thrive at the world’s epicenter of innovation.

Confidence without Attitude: We make decisions based on evidence and analysis, giving us the confidence to act without arrogance. We lead through trust and collaboration.

Students Always: We are a community designed for curiosity and lifelong pursuit of personal and intellectual growth. This is not a place for those who feel they have learned all they need to learn.

Beyond Yourself: We shape our world by leading ethically and responsibly. As stewards of our enterprises, we take the longer view in our decisions and actions. This often means putting larger interests above our own.

These defining principles have always been part of our culture, but we had never articulated them until recently, and had never used them so deliberately to shape our students and graduates. Great firms such as General Electric, McKinsey, and Southwest Airlines have strong cultures and values and encourage their employees to use them as guides to be successful. We want to use our unique culture and values in the same way—to encourage and develop the attitudes and behaviors of innovative, path-bending leaders in our students.

We originally had many candidates for our defining principles, but we wanted to limit the number so that we could “go for it”. We felt that if we had too many on the list, nothing would really cut through. We also wanted our principles to avoid the same core values or cultural words that are on a lot of office walls—words and phrases such as “integrity” and “respect.” We knew that we needed to find words that reflected our own voice and would speak to us and hopefully to those externally as well.

This is not to say that our university’s core values such as excellence, access, and inclusion are not important to Haas too. We used the phrase “defining principles” instead of “core values” because we wanted to identify principles that, as a group, set us apart and nail our uniqueness. Although our principles seem simple, coming up with them and their respective text was time consuming and challenging because we tweaked the language a lot to get the message right.

Once we codified our culture, we set out to embed our defining principles in everything we do—admissions, orientation, curriculum, career services, and alumni relations. Our strategy and its four defining principles have been introduced school-wide within our MBA programs, the undergraduate business program, and to the faculty and staff. This includes me as well—part of implementation is submitting myself to a 360-degree evaluation of how my own behavior accords with our defining principles.²

The intellectual influences at Berkeley for our approach, both at the macro and micro ends, are many and spanned many disciplines. The work of Oliver Williamson (e.g., Williamson 1973,

² For more on how business schools can benefit from being as deliberate about culture as the great firms are, see the *BusinessWeek* article, “For Business Schools, Culture Matters”: <http://buswk.co/eVFAzc>.

1985) was certainly in our thinking, particularly his vital insights on organizations as the vehicle for economic progress. Insights on how organizations evolve from John Freeman and Hank Chesbrough influenced our thinking (e.g., Hannan and Freeman 1977 and Chesbrough 2003). The work of Carl Shapiro, Hal Varian and Michael Katz was in our thinking, particularly on the role of information and ideas in modern economies and how competition evolves (e.g., Shapiro and Varian 1999 and Shapiro and Katz 1985). The work of Staw and Chatman on the roles of creativity, commitment, and culture was in our thinking (e.g., Staw 1981 and 2006 and Chatman and Cha 2003). The work of David Teece (e.g., Teece 2009 and 2001) was as well. His work on dynamic capabilities, first developed in reference to “fast markets,” is even more generally applicable now. His notion in Teece (2011) that curriculum reforms need coherence across disciplines helped inspire our capabilities integration concept, as described below.

More Micro: The Skills End of Curriculum Reform

While anchoring the macro end of the barbell with culture and path-bending leadership, we worked to anchor the micro end as well. The main strategic initiative, Berkeley Innovative Leader Development (BILD), is a curriculum and set of organizing themes to develop innovative, path-bending leaders by delivering the specific knowledge and skills needed.

We methodically identified 10 capabilities that, to the best of our judgment, define the innovative leader and reflect knowledge and skills needed for success in the 21st century. We took a stand on these capabilities because we do not want to simply say that we are producing leaders. These capabilities include skills around defining opportunities; around making choices; and around executing.

Defining Opportunities

1. **Problem Framing:** A trend in business is toward solving business problems with more discipline “upstream” at the problem-finding and problem-framing stages. Discipline includes structured observation, boiling down to core issues, and “meta cognition” – the ability to deliberately move among systems thinking, critical thinking, design thinking, and other modes, to uncover new solutions. Curricular extensions include structured observation, recognizing implicit assumptions, and understanding systems-level interactions.
2. **Opportunity Recognition:** The trend is toward new methods for recognizing business opportunities and how to approach them. One example is open innovation – ideas need not come from inside the organization to be implemented internally, and internally sourced ideas need not be implemented internally to be monetized. Another is opportunities that arise out of shifting an industry ecosystem (e.g., the iPod). Curricular extensions include recognizing opportunities in services bundling, open innovation, and opportunities from corporate responsibility.
3. **Experimentation:** The trend is toward testing new business ideas with cost-effective experimentation, versus traditional planning. This supports sound decision-making in the

world's rapidly evolving business environments. Curricular extensions include experimental design, the value of information, and real options.

Making Choices

4. **Revenue Model Innovation:** The trend is toward greater disruption of revenue models, with new entrants often getting paid differently from incumbents. Established organizations have to think in new ways about where ultimate sources of value lie. Includes trends towards advertising-based revenues, data-generation-based revenues, and new pricing models. Curricular extensions include the role of aligning complementary players in an industry, pricing, growth strategy, and open business models.
5. **Valuation of Ideas:** The trend is toward understanding that the engine of economic value is new ideas and their implementation. Many good ideas do not represent good businesses however. And early-stage ideas are often not sufficiently refined to warrant capital budgeting analysis. Still, ideas need structure and process to be generated; they need to be winnowed, combined, and selected; and they need a path to execution. Curricular extensions include the value of information, managerial innovation, and distributed sourcing of information.
6. **Risk Selection:** The trend is toward more disciplined approaches to business risk selection. From finance we know to invest whenever net present value is greater than zero. At the level of firm strategy, however, investment decisions are often mutually exclusive and are typically dependent on judgments that are harder to quantify (e.g., market entry or changing industry standards). At the same time, the greatest market value is often created from these high-level business decisions. Curricular extensions include real options, choosing among alternative proposals, capital budgeting for strategy, and decision-making under unknown probabilities.

Execution

7. **Influence Without Authority:** The trend is toward flatter organizations and distributed authority, with less reliance on command and control, particularly given demographic shifting toward millennials. This capability includes meaning-making (showing how people's efforts translate into larger results that matter), effective feedback and coaching, and leading organizational change. Curricular extensions include leading change through social networks, building alignment inside and outside of the organization, and links between influencing and problem framing.
8. **Managing Ambiguity/Conflict:** The trend is toward more fluid organizational boundaries and greater weight on stakeholders with conflicting interests. Successful leaders understand other people's perspectives and recognize assumptions that are implicit in those perspectives. They are conflict-managers and sense-makers. Curricular extensions include managing social dilemmas, alignment limitations, and segmentation.

9. **Team Creativity:** The trend is toward organizing work in highly interdependent teams. Results are driven by increasingly disciplined approaches to managing attendant costs and benefits. Creative solutions require careful attention to team design, methods, and norms that encourage fresh thinking. Curricular extensions include diversity and innovation, integrated and self-reinforcing processes, and the Haas Team Performance Model.

10. **Adaptive Governance:** The trend is toward transparency in decision-making, while maintaining flexibility over time in organizational structure and decision rights. Governance is used broadly here to mean the set of methods enabling the organization to do its work. This includes empowering the discretion of managers to capture evolving opportunities. Curricular extensions include vertical relationships and firm boundaries, organizing for innovation, assigning decision rights, and measuring change.

For a business school like Berkeley-Haas to reach consensus on capabilities, we needed them to meet two criteria: 1) they needed to be grounded in the social sciences and research-based; and 2) they needed to be demanded by recruiters and others in the marketplace.

On the former, we worked closely with our core curriculum faculty to make sure they were involved in identifying these capabilities so they would be comfortable with the process and the list. If our faculty thought our capabilities were simply a fad or extracted out of some top 10 bestseller book, then they would not agree to it.

I worked with a few faculty members for three to six months, including Professor Michael Katz, professor of strategy and head of our Institute of Business Innovation. We reviewed core course syllabi for existing links with innovative leadership. Naturally, there were many. We then met with core faculty to discuss where further innovative leadership capabilities could be integrated. We came up with a list that was strongly grounded in research in areas like experimental design, links between influencing and problem framing, and pre-conditions for creativity in teams. The leadership team then began building candidate lists of capabilities and iterated a few times in order to distill the capabilities to elements our faculty were responding to most.

On the second criterion, that our capabilities needed to be demanded by recruiters or by others in the marketplace, we worked with recruiters to get feedback on toolkits and capabilities they most value. Firms had to tell us that they were actually interviewing for our capabilities. Eventually, we reduced the list of capabilities to 10 and we shopped it around to faculty and received more input until we began to feel like we had a strong list.

Once we had the final list, we sent a set of notes along with the list of capabilities to all faculty to give them some sense of the process that was behind the list, especially if they hadn't worked directly on the team. This was an important step for building support for subsequent in-class changes. On an ongoing basis, our faculty lead now sends a personal email to each instructor prior to each semester reminding them of the 10 capabilities, and frequently meets in person with individual faculty. This continuing interaction with the faculty led to a graphic representation of the 10 capabilities and how they fit together as a system, as opposed to a list.

Figure 1 here

Revamped MBA Core with Respect to the Ten Capabilities

Our team and the faculty spent about five months looking at how our core curriculum could be renewed with respect to the capabilities of the innovative leader, culminating in a unanimous vote of support in January 2010 for our strategic plan and for the first phase of improvements and new initiatives. We implemented these curricular changes in the fall of 2010 in the Full-time MBA program and Evening & Weekend MBA programs. We are introducing elements of this plan to all of our graduate and undergraduate academic programs over time.

The Haas MBA Program is anchored by 12 required, rigorous, and integrated courses that promote a general management perspective and provide a framework for the more function-specific courses that follow. These courses comprise 40 percent of the overall curriculum. The first year of the program is divided into four quarters. Both the fall and the spring semesters contain two separate groups of courses, A and B.

Our core course names mostly look the same and remain anchored in hard skills such as finance, marketing, and accounting because we all know that innovative leaders still need to know these core subjects well. But of the 12 core courses, one is entirely new and two more have been restructured significantly.

- Data and Decisions
- Economics for Business Decision Making (Microeconomics)
- **Leading People**
- **Problem Finding Problem Solving**
- Financial Accounting
- Introduction to Finance
- Marketing Management
- **Leadership Communication**
- Operations Management
- Macroeconomics in the Global Economy
- Strategic Leadership
- Ethics and Responsibility in Business

First, the one-unit course *Problem Finding Problem Solving*, designed by faculty member Sara Beckman, is new. The course teaches students specific skills in problem framing, such as being intentional about one's use of divergent versus convergent thinking. Greater facility with thinking modes helps our graduates find and frame difficult problems that are characterized by complexity, uncertainty, volatility, and ambiguity—"wicked problems" that defy easy solutions such as managing climate change. The course is less about models, and more about process. It was designed as a front-end to our experiential-learning curriculum, described below.

The second change is a restructuring of the course, *Leading People*. Although we began teaching it in 2009, it is essentially a new course that focuses on additional innovative leader

skills. We chose to slot *Leading People* at the beginning of the core curriculum (instead of in the second term where it was in 2009) to frame the program around leadership.

The third change is a reinvention of our one-credit *Leadership Communication* course. We changed the course from a focus on speaking skills to a broader set of influence skills such as the ability to influence without authority.

Moreover, as part of BILD, all core courses have been reviewed in depth to call out existing content or to add new content that emphasizes the 10 capabilities. As just one example, in our core Operations course, the professor shows that when people make decisions under uncertainty, their intuition is often badly mistaken. Students work through Risk Selection exercises and are provided with a set of models for thinking about these issues.

Beyond the 12 core courses and experiential-learning requirement, students may select from many electives that give them the option of studying aspects of innovative leadership in greater depth. Students can take what they've learned about the 10 capabilities in the core, mix it with lessons from Problem Finding Problem Solving, the experiential-learning course, and the team performance module, and apply all of this to their electives within their areas of interest.

We also provide a Leadership Development Series, a popular suite of non-credit, hands-on workshops and seminars designed to round out the experience and knowledge gained by students in the classroom and through experiential-learning opportunities. Topics include how to build one's personal brand, how to lead change, and how to navigate corporate politics.

From Independent Experiential-Learning Programs to an Integrated One

Part of the micro side of our curriculum reform is moving from a set of independent experiential-learning programs to an integrated experiential-learning curriculum. One can talk about innovative leadership at the 10,000-foot level for only so long—it is essential that students graduate knowing how to put these skills into practice.

As part of our curricular changes, all MBA students are now required to take at least one experiential-learning course. These courses are a finishing component to the core MBA curriculum—a structured process for actually delivering innovation into organizations. These experiential courses emphasize general management and BILD to include strong leadership components. Students can choose one or more of the following:

- **Cleantech-to-Market:** Cross-department student teams (includes engineering, chemistry and biology) work with scientists at Lawrence Berkeley National Laboratory and other Berkeley departments to evaluate the commercial viability of new technologies.
- **Haas@Work:** Our program in applied corporate innovation sends teams of Berkeley MBA students to work with top executives at major firms using a specific innovation process. Students research and develop solutions for a major competitive opportunity identified by the firm.

- **International Business Development:** Students work in small teams with clients with for-profit and nonprofit clients throughout the spring semester and then for three to four weeks each summer in countries like Finland, Cambodia, and Zambia.
- **Managing New Product Development:** Students develop a product or service from idea through first-pass prototype in a cross-disciplinary team that includes Ph.D. students from Berkeley’s College of Engineering.
- **Social Sector Solutions:** This course partners with consulting firm, McKinsey, to engage in consulting projects for nonprofit organizations. Students work with McKinsey consultants to offer plans, creative ideas, and solutions to organizations.
- **Strategic Corporate Social Responsibility:** Students engage with companies to develop socially responsible business strategies that are aligned with business objectives. These projects are combined with classroom “best practice” lectures of companies who have attempted to implement socially responsible strategies while generating financial returns.
- **Entrepreneurship:** This course focuses on how to start and grow a successful high-potential enterprise. Students select from a variety of opportunities that challenge them to come up with real business solutions and business plans for companies.
- **Applied Finance:** Our three experiential opportunities in the finance area include courses in hedge fund strategies, socially responsible investing, and real estate investment analysis.
- **Team-Initiated BILD Project:** Students work in teams to design their own experiential-learning endeavor.

In addition to making an experiential course mandatory, we also wanted to integrate the program more tightly with the rest of the curriculum. A task force composed of staff and external consultants worked on this. Ultimately, we wanted to preserve the unique character of each of these courses, while simultaneously coordinating and integrating them.

Specifically, we realized that our *Problem Finding Problem Solving* course could serve as a front-end integrator for a lot of our downstream experiential-learning courses—a kind of training program for using these real-world labs. Many businesses told us that they need business students and people who can think more effectively further upstream—identifying and framing opportunities in sharper ways than the status quo. Our experiential-learning courses now put greater emphasis on these upstream thinking skills.

As a result of our curricular change process, our experiential course faculty now communicate more with our core faculty and the two formerly separate areas are more integrated around our capabilities.

We also developed a new required Team Performance and Training Module taken in tandem with experiential-learning courses, based on prior feedback from alumni that working on teams in experiential-learning courses was more challenging than in theory.

Implementation and Getting Buy-In

As mentioned above, when we put our strategic plan to a vote in January 2010, we had unanimous faculty support: fifty-four of our faculty approved, four abstained, and no one voted against the changes. The changes have also been well-received by our alumni and incoming students.

Despite this, the process of achieving buy-in hasn't been without its challenges; in fact, the biggest challenge has been related to buy-in. Part of Berkeley's charm is that Berkeley lets you be you, affording people a degree of freedom through a culture of democracy. However, when you need to align people in an environment that prides itself on democracy and independence, there can be a steeper slope to climb because people are not naturally oriented that way.

To summarize the buy-in process, it started with our sowing a sense of urgency on the front end. One critical element of this was our launch in the fall of 2008 of a working group linked to the coming launch of our capital campaign. Called the "Campaign and Strategy Working Group," which included faculty and senior staff, it helped concentrate minds on considering bold plans. A second critical element was, as described, the high-touch, personalized process of interacting with faculty where their comfort level was highest, namely, their syllabi. A third critical element was the continual testing of our ideas against demands in the marketplace, from employers. A fourth critical element was that the faculty knew that I am passionate about the central elements of our plan and that I am behind them for the long run. This latter element also supports our shared understanding that the curriculum will evolve toward the innovative leader capabilities and archetype on a continuing basis.

Once we had intellectual support, we were able to move quickly from our initial one-on-one discussions of the innovative leader capabilities to implementation. This included a relatively rapid connecting of the 10 capabilities to our core, elective and experiential courses.

Measuring Performance

We are committed to measuring the performance of our new approach. Regarding our supporting culture, we want to see changes in terms of who we are and what we do. As noted, I will myself be part of a 360-degree review relative to the defining principles. More broadly on the staff side, we have defined the specific behaviors associated with each defining principle so that we can track them more sharply in performance evaluations and by other means. Students are increasingly being asked to include the defining principles in evaluating peers as part of the regular flow of work. We are beginning to solicit input from students about which of our faculty are the strongest exemplars.

In assessing our capabilities-integrated curriculum, we want to determine if the students are really better at experimentation, for example, as well as the other capabilities. We're in the

process of partnering with private firms to determine how best to measure these 10 capabilities within our student body. Furthermore, our executive director of BILD and our MBA Program Committee are focusing on performance measurement of our curricular changes.

In assessing experiential learning, we want to determine if our new course, *Problem Finding Problem Solving* has been as useful to the students as we intended and whether the Toolkit was sufficiently referenced and applied throughout our curriculum and the experiential programs. Our Team Performance modules are currently happening, but it is still too early to tell which of their elements are the most effective. Students value the additional training. Our Leadership Development Series as part of BILD has been very effective, at least as measured by student satisfaction surveys.

Links to Trends in Business School Curricula

The influential book by Srikant Datar, David Garvin and Patrick Cullen (2010), published soon after Berkeley-Haas launched its strategic plan, outlines many shortcomings of business school curricula. While these are addressed to varying degrees in other curriculum reforms, it is instructive to consider what is distinctive about Berkeley's approach. One area of weakness noted by Datar et al. at the macro level is decline in the public's trust in its business schools and the need for more attention to issues of accountability, ethics, and social responsibility. Like other schools, Berkeley is doing more on these issues in many of its courses. A distinctive element of the Berkeley approach is the all-out commitment to culture. Most CEOs, if asked whether they worry about ethical behavior in their firms, would appeal to the firm's strong and guiding culture. While every business school has a culture, they are not as profoundly intentional about their cultures as the great firms typically are. A second area of weakness noted by Datar et al. calls for rebalancing toward what they term "doing" and "being," versus the more traditional "knowing" orientation of business school curricula. Distinctive elements of the Berkeley approach include tethering the curriculum to a leader archetype (being) and launching the integrated experiential-learning curriculum, with its customization via student choice (doing). A third area of weakness noted by Datar et al. is insufficient attention to thinking and reasoning skills. The new Problem Finding Problem Solving course is part of Berkeley's answer on this front. It is designed as a front-end to the experiential-learning curriculum, which provides for its structural integration with the larger curriculum. Finally, Datar et al. express concern about fragmentation within the typical second-year MBA curriculum. Here, Berkeley distinguishes itself via its concept of capabilities integration. The focal-point capabilities are integrated through second-year electives as much as they are through the first-year core. This integration concept, across courses but with elements that unify across disciplines, contrasts with the within-course disciplinary integration pioneered by the Yale School of Management under Dean Joel Podolny. Relative merits aside, we did not feel that a within-course integration would have been sustainable with Berkeley's faculty.

The Future

At Berkeley-Haas we aim to develop innovative leaders who should be able to solve not only business problems in new ways, but also to help mobilize people to solve some of our largest problems. These are, after all, some of our largest commercial opportunities. We took a stand on

our defining principles in the hope of being more intentional, like so many of the great firms have been. We've also focused on building a capabilities-integrated curriculum. We're getting better at delivering on those capabilities because we coordinate more each semester around them. If we deliver on those 10 capabilities, we are getting closer to a signature leader archetype than we have ever before. Our experiential-learning curriculum has extended further upstream from problem solving to increase focus on problem finding and framing.

The global financial crisis sparked a vigorous period of introspection for business schools. We have been given a extra latitude—by our alumni, by our students, by society—to renew, re-create, and redefine what we are, how we do it, and where we want to go. There is even more room for us to sharply define our narratives, school by school. This is positive: One of the big opportunities now and in the future is for schools to re-differentiate, to find their own heartbeat and to use it as a true north.

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Figure 1

Innovative Leader Capabilities

