The Entrepreneurship Programs at LMU LA

BRINGING CREATIVITY AND DESIGN CAPABILITY INTO AN ENTREPRENEURSHIP COURSE
Original (naïve) idea was to help our business students to:

(1) Develop innovative ideas

(2) See their ideas develop into something tangible

(3) Learn a little about design

(4) Work effectively in an interdisciplinary team
FACULTY MEMBERS

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SURPRISING FINDINGS

- Wow, it’s really hard to work with students of different disciplines.

- Design faculty members are really good at frameworks for analyzing observations and generating ideas.

- Design students are really good at coming up with creative solutions to business problems, even though they know little about business.

- Unlike them, Business professors and students are poorly prepared for creative thinking.

No Wonder Businesses Lack Creativity – We Don’t Do a Good Job Teaching Business Students!
DESIGN THINKING—A HOT TOPIC!


*The Academy of Management’s* MED Best Symposium in Management Education and Development Award (2010) was a symposium on teaching *Design Thinking*.

Many in academia are recognizing the benefit of Design Thinking.
Wasteful of Natural Resources
• 1.5 Billion Oil Barrels/Year for Water Bottles (United States)

Expensive
• $15 Billion Water Bottle Industry in United States (2007)
  • Average $1 per bottle

Toxic Materials
• Bisphenol A (BPA)
• Lab tests on 10 brands of bottled water detected 38 chemicals including
  • bacteria
  • caffeine
  • pain reliever acetaminophen
  • +++

Pollutant
• Producing 1 kilogram of PET plastic results in air emissions of
  • 40 grams of hydrocarbons
  • 25 grams of sulfur oxides
  • 18 grams of carbon monoxide
  • 20 grams of nitrogen oxides
  • 2.3 kilograms of carbon dioxide

EXAMPLE 1: BOTTLED WATER PROBLEM (1)

Bottled Water Creates Incredible Waste
EXAMPLE 1: BOTTLED WATER PROBLEM (2)
Public Drinking Fountain

Instead of developing a different bottle, why not reduce the need for them?
EXAMPLE 1: BOTTLED WATER PROBLEM (3)

Trublu Indoor Drinking Fountain

Transparency
Filtered
Hygiene (sensor)
Appealing (no drain)
Refilling station (bottle)
Service
EXAMPLE 1: BOTTLED WATER PROBLEM (4)

Exploded View

Entire Unit

Filtration System
EXAMPLE 1: BOTTLED WATER PROBLEM (5)

Prototype
EXAMPLE 2: New Generation Mobility Scooter (1)

Reinventing the Mobility Scooter Industry

<table>
<thead>
<tr>
<th>Problems</th>
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<tbody>
<tr>
<td>maneuverability</td>
</tr>
<tr>
<td>fixed seating position</td>
</tr>
<tr>
<td>physical boundary</td>
</tr>
<tr>
<td>non-innovative</td>
</tr>
<tr>
<td>lack of features</td>
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<tr>
<td>outdated style</td>
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</tbody>
</table>

Depressing, no personality, and **not easy to socialize with people.**
EXAMPLE 2: New Generation Mobility Scooter (2)
EXAMPLE 2:
New Generation Mobility Scooter (3)

The height adjustment makes a huge difference in being able to communicate with people
EXAMPLE 2: New Generation Mobility Scooter (4)

Storage compartments

Protects valuables from bad weather and from movement
Remote access allows users to easily move Scooter

Bring electronics to 21st century (like everyone else)
EXAMPLE 2
New Generation Mobility Scooter (6)

Interface

- **remote access**: Icon appears only when smart key is removed from dock.
- **power button**: Hold down to power on/off, tap to sleep.
- **widget offers applications and internet access**.
- **tap battery icon to change mode**: Switch between power percentage, battery time left, mileage left.
- **speed manager**: Drag color bar from low to high.
- **horn and lights**: Touch to engage.
A common misconception: Design is primarily a visual discipline about making products or advertising campaigns more appealing.

“Design is not about making beautiful things, but making things work beautifully” (Martin, 2009).

Problem solving discipline: “What is the problem we are solving?”

- **UPSTREAM ANALYSIS** (asking WHY? WHY? WHY?)

Design is also a **discipline** that deals with **constraints**.

- Business professionals take standard business practice as given starting point.
- The design trains students to reexamine all given constraints, and to **differentiate the real constraints from the artificial** (removable or self-imposed) ones.
Refreshing **attitudinal difference** – to be learned.

- Anyone can concoct brand new business **ideas never invented before**. Thus, no benchmarking or copying of competitors need.
- Radical innovations can happen on a daily basis.

**True commitment to understanding the User Experience**

- More than “market research”
- Long observation, emotions, interaction with other products

**Systems Thinking** to maximize benefit

- How a product is made, delivered, interacts with people – the entire ecosystem

**The Rigor and Attitude Allow For Superb Creativity & Innovation**
One semester-long course implemented the following pedagogical approaches to enhance creativity and provide a truly collaborative atmosphere.

Fundamentally, a project-based learning pedagogy that builds on the Kolb model of experiential learning.

Encourages conceptualization and self reflection.

- Our students are asked to reflect on their experiences each week.
- Moreover, the class gets together after the final presentation to reflect on their experience and learning.

One semester-long course implemented the following pedagogical approaches to enhance creativity and provide a truly collaborative atmosphere.

**The Ice-Breaker:**
- Make sure that the two groups started under the best circumstances.

**Introduction to Each Other’s Discipline.**
- 4-5 lectures (each for about 2 hours) introducing students to the other group’s disciplines to better appreciate each other.
- Location: Classes were held on both campuses.

**Coaching, Not Lecturing.**
- The instructors met separately and/or together with student teams and advised on how they could improve on their projects.
BUSINESS DESIGN PROCESS

Intent
- Determine purpose
- Set Goals

Research
- Understand the problem
- Observe

Frame
- Synthesize, Storytelling
- Develop a perspective

Ideation
- Brainstorm potential solutions
- Sketch Ideas

Develop
- Rapid prototyping
- Find the most efficient path

Deploy
- Test market
- Launch
- Learn and adjust
## COMPARISON OF NEW VENTURE DEVELOPMENT APPROACHES

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<thead>
<tr>
<th></th>
<th>Conventional Approach</th>
<th>Design Approach</th>
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</thead>
<tbody>
<tr>
<td><strong>Analysis</strong></td>
<td>Quantitative Data</td>
<td>Quantitative and Qualitative</td>
</tr>
<tr>
<td></td>
<td>Analyze constraints</td>
<td>Analyze and challenges constraints</td>
</tr>
<tr>
<td></td>
<td>Deductive &amp; inductive analysis</td>
<td>Balance between Analysis and Creativity and “abductive”</td>
</tr>
<tr>
<td></td>
<td>“Proof”</td>
<td>“Logical leap of mind”</td>
</tr>
<tr>
<td></td>
<td>Market Research (superficial)</td>
<td>Committed to understanding the user experience</td>
</tr>
<tr>
<td><strong>Ideation</strong></td>
<td>Limited tools and experience</td>
<td>Many tools and experienced in ideation exercises.</td>
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<td></td>
<td>Process encourages coming to agreement quickly</td>
<td>Encourages diversity of thought and open to tension</td>
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<td><strong>Strategic Options</strong></td>
<td>Tends to examine a manageable number of feasible options.</td>
<td>Open to exploring a wide range of feasible and infeasible ideas (at least in the beginning).</td>
</tr>
<tr>
<td><strong>Participants</strong></td>
<td>Senior management</td>
<td>A wide collection of senior and junior executives (including someone trained in design)</td>
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<tr>
<td><strong>Timing</strong></td>
<td>Once a quarter or once a year</td>
<td>Continuous and/or as needed</td>
</tr>
<tr>
<td><strong>Desired Outcome</strong></td>
<td>Detailed business plan</td>
<td>Prototype and Experimentation</td>
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Indications of Success: Innovative Ideas

The ideas conceived and developed by students in this class were quite different from those developed in most of my and my colleagues’ classes.

The most common comments by our panelists and judges were:

- “These ideas are completely different from other Entrepreneurship courses”
- “Business students couldn’t have come up with these ideas on their own.”
Indications of Success: Student Satisfaction

Students found the class super-demanding.

Some of the business student comments received have included:

- "It’s been nice getting to see the other side of product development."
- "This class taught me that there are lots of different issues that you must struggle with in the real world...
- There’s a different side to business that I’d never encountered before but when you ... create an actual working product. It’s incredibly rewarding."
- I learned to approach idea development with much more rigor in a much more systematic way."
Indications of Success: Client Satisfaction

- A coffee company ($100M in revenue) offered 2 projects to our students.
  - The client was so happy with the outcome that they invited our student teams to present to their board of directors.

- Founders of Revolution Foods has asked our students to present their ideas for better nutrition in K-12 schools.

- A technology company ($100M in revenue) also provided a project and wants to develop a long term relationship.
INTERNAL RECOGNITION:
SCHOOL WEBSITE

LMU | LA
Loyola Marymount University

ABOUT LMU
Mission, history, diversity, jobs

ACADEMICS
Areas of study, colleges + schools

ADMISSION
Applications, deadlines, financial aid

ATHLETICS
NCAA teams, scores, tickets

LIBRARIES + RESEARCH
Collections, centers + institutes

LOYOLA LAW
Premiere legal education

STUDENT LIFE
Get involved, housing, careers, orientation

ILMU CLICK HERE TO LAUNCH

Lions Team with Otis Peers on Unique Project

About a year ago, Professor David Chai (right) wondered what would happen if he combined LMU entrepreneurship students and students from neighboring Otis College of Art and Design. His idea resulted in the New Product Design and Development course, which aimed to expose students from both colleges to other disciplines and help them develop better products.

READ MORE

The Buzz

- James Goodrich '72 Honored in the Seaver College Wall of Fame
- LMU Alumna Gabriella Gomez Nominated for Dept. of Education Post
- Senior Jeremy Flores' Documentary Takes Him to Big Sky Film Festival

MORE NEWS

Event Calendar

- Athletics: Men's Baseball, Apr. 3-5
TRANSFERABILITY TO OTHER SCHOOLS

Our general approach is easily transferable to other Entrepreneurship programs.

- Most universities have a Art or Design program on campus that Entrepreneurship classes can leverage.

- Schools can also work with Design colleges off-campus, e.g., UCLA MBA and Insead’s MBA program (France) with Pasadena Art Center.

- Note: We did not create one class for two different colleges. We just merged two classes that happened to be at the same time.

- We kept the class very low profile, while we experimented with the first class. Our Deans eventually learned about the course when it was featured in the university alumni magazine and on our main school website.

Any School that Follows Our Approach Will Likely Extract Equally Innovative Ideas from Their Students.
We are happy to share that we have been successful in enhancing the creativity of our class through:

- Partnering with Otis College of Design
- Integrating Design Thinking systematically
- Building a collaborative work environment

Other schools/programs could benefit from some of our experiences and likely improve upon them.
Overheard BEFORE:

“I don’t want some suit taking over my design work.”
“No crazy artist is going to threaten my bottom line.”
“This is really gonna suck.”

Overheard AFTER:

“That LMU student helped me launch my first product.”
“That Otis student really taught me how to innovate.”
“Best. Class. Ever.”

Loyola Marymount University

Otis College of Art & Design