

IMPROVING THE SURVIVAL RATE OF ENTREPRENEURIAL STARTUPS VIA AN EXPERIENTIAL LEARNING APPROACH IN THE CLASSROOM:

Designing In-Class Competitions to Achieve Specific Learning Outcomes and Entrepreneurial Skill Sets

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Introduction

Entrepreneurship can be a job growth engine for economies around the world, but studies by the Kauffman Foundation (2013) show that the percentage of students engaging in startups is not increasing. If we cannot increase the quantity of businesses created, then we must increase the survival rate of existing startups. Sixteen years ago, we started a course at Carnegie Mellon University called “The Apprentice.” To this day, the course combines a rigorous, focused, experiential learning environment with student team competitions. Competitions are held every two weeks, focusing on a specific entrepreneurial discipline each time.

Most present-day entrepreneurial competitions focus on presentation skills, the innovative idea, the unique business model, or the rigorous business plan. We propose a new approach to competition that rewards students who show increased skills in decision-making, team-building, sales, leadership, and a deep understanding of granular cash flow numbers. Instead of a single competition, we host a series of bi-weekly competitions that hone each skill. Winners are rewarded and analyzed. Failures are analyzed and encouraged. Teams are reorganized in ways similar to what startups face in their first two years in the “real world.” It is the combination of these Apprentice competitions (complete with teachable content) that makes up our newest course: Startup Incinerator.

The effect of these methods is to teach students a diverse new set of skills. One thing all of the teams achieve is increased customer knowledge. And, “When you know the customer’s business as well as the customer, you can then understand their problems. And then (and only then) will the customer purchase your solution.” Individuals and teams emerge from the course as well-prepared entrepreneurs and startup companies. Nineteen of the 21 companies that emerged in the last four years are still in business today. Compared to the BLS statistics that tell us less than 50% of businesses survive to year four.

The future of entrepreneurship education lies beyond teaching to the business plan and the Lean Startup and focuses on the full set of skills that a successful entrepreneur will need when facing real world, startup challenges. With record numbers of students participating and creating new startups, our goal is also to increase the entrepreneurial survival rate.

Methods and Key Propositions

The first concept introduced is that of constant real-time customer interaction and problem questioning—finding the true problems within the small to medium-sized enterprise (SME). The end result is deep customer knowledge. The second concept is a rigorous, granular cash flow analysis—not to be misconstrued with unnecessarily long financials. Students discretely determine how their business model creates cash flow, and what the path to positive cash flow



and scalability look like. In addition, we teach essential startup skills such as: hiring, team leadership, selling, and decision-making.

According to Steve Forbes, the top five reasons why entrepreneurial opportunities fail are: (1) incomplete team, (2) no sales training, (3) inadequate customer knowledge, (4) lack of timely decision making, and (5) a poor grasp of the business's cash flow. To teach these concepts and skills, we provide a learning environment that is both experiential and stimulating, and where risk-taking and failure are expected and encouraged. With the guidance of experienced entrepreneurs and mentors, the results are quantifiable and include business elements such as increased revenues and teams comprised of multi-disciplinary, top performing individuals, which have a higher likelihood of success in the real world.

In 1998, we created a course called “The Apprentice,” a two-year forerunner of the popular US television show. This course focuses on a different aspect of the entrepreneurial experience every two weeks. Teams are created every two weeks and are given broad-based problems to solve with a specific skill focus: branding, sales, digital marketing, granular cash flow analysis, and more, depending upon the opportunity. The students are given two weeks to prepare and implement their solution for each topic. Executives and entrepreneurs are invited to judge the presentations. Peer and social media voting, revenue creation, and judges' votes determine the winning team. This approach has evolved over 15+ years into an oversubscribed course.

In 2012, we morphed The Apprentice into “Startup Incinerator.” This new course is designed to emphasize head to head team competition and dynamic decision-making. By making more (and more frequent) decisions, students improve on that critical startup skill and earn points toward that ability in their

personal portfolio. We push the students to translate their thoughts into “minimally viable products” every two weeks. The lesson is that a multi-disciplinary team is essential, but needs to evolve. Also, decision-making is best improved by allowing (and often times forcing) players to make more and more decisions. Since the teams are not competing against 20 other teams simultaneously, but rather competing against just one other team many times, they can therefore design their pitch accordingly.

Details

The goal is to design in-class competitions to achieve specific learning outcomes and to improve business creation and survival rate by:

1. Encouraging more complete, multi-disciplinary teams.
2. Increasing customer knowledge via real-market analysis and real-life interactions.
3. Finding the correct business model via a detailed understanding of granular cash-flow financials.

Examples

To add more detail, we have attempted to outline the following two examples of Startup Incinerator projects. One will outline a new concept. We were approached by several franchisors to investigate the “franchise-ability of food trucks” on university campuses throughout the US. The second project reviews an existing business—AXS.TV—and makes recommendations regarding how it could potentially expand to the university campus via web, TV, and/or mobile device. The franchising model requires an in-depth understanding of a food truck's cash flow, while the AXS.TV example requires an in-depth understanding of the customer, team capabilities, and revenue requirements prior to going into a new market.



Example to Demonstrate Granular Cash Flow: Franchising Food Trucks

Description: To create a food truck concept that can be franchised on multiple campuses.

Learning Goal: Tying increased customer knowledge directly to cash flows. Increased understanding of the customer's needs, wants, and aims allows students to properly align the business processes, services, and products to those essential in building real customer relationships. Loyal customers lower the cost of customer acquisition, lower employee turnover, and offer a more consistent revenue stream. We invite our local area franchise owners to class (McDonald's, Subway, etc.) to dissect the underlying business models for financial consistency.



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Judges: Franchisees, franchisors, bankers, entrepreneurs, students, and social media. Judges are not compensated. They are given

rubrics for grading. If a judge is tied to a corporation that directly benefits from our analysis, the corporation is required to supply prizes for the winning team members.

Discussion Requirements:

- Positioning
- Product (include food costs and retail prices)
- Sales (transactions per day)
- Payout (pro forma)



Concept Basics:

- How many trucks on campus?
- What is the menu diversity?
- Price range?
- How fast is the service?



Financial Yield:

- Best Value for Money
- Highest Turn
- Lowest Cost

Target Audiences:

- Local students = end-users, the food consumers,
- Local franchisees = those purchasing or leasing the trucks
- Local franchisors = those chains wishing to expand their business

Project Deliverables:

- Team concept and branding for franchising food trucks
- Support for success (financials for franchisees, franchisors, and the bank)





(Logos courtesy of Google Images, Photos courtesy of Yellow Submarine Marketing)

Example to Demonstrate Corporate Marketing Strategy: AXS.TV

Description: To increase cable TV and website viewership on AXS.TV (a Mark Cuban company) and to make a decision regarding AXS.TV's use of mobile capabilities.

Learning Goal: To determine a digital marketing and cash flow model that would retain and grow AXS.TV's user base. In this case, we had many conversations with AXS.TV employees, advertisers, competitors, partners, and end-users.

Judges: AXS.TV stakeholders, partners, entrepreneurs, users, and social media. Judges are not compensated, but rather given rubrics for grading. In this case, given the corporation directly benefited from our analysis, they were required to supply prizes to winning team members.

Discussion Requirements:

- Corporate restructuring recommendations in order to prevent the further loss of capital and other resources (today)
- How to attract a younger audience/viewership (tomorrow)

- Examine the choice of a mobile experience
- Examine the short- and long-term revenue potential
- Examine the team to see how they would react to a more mobile experience and measure the interest level of the "college" audience.

Concept Basics:

- What content is required?
- What advertising (revenue) rates/gross can be anticipated?
- Is the existing team prepared for the task?

Financial Yield:

- Viewership
- Content
- Focus

Target Audiences:

- College students (end-users – watchers of AXS.TV)
- Local and national advertisers

Project Deliverables:

- Concept: quality content drives viewership
- Support for success—estimated viewership and financial impact(s) for AXS.TV and its significant partners (CBS, etc.)



Sample Partner Webpage:



New AXS.TV Interactive Webpage:

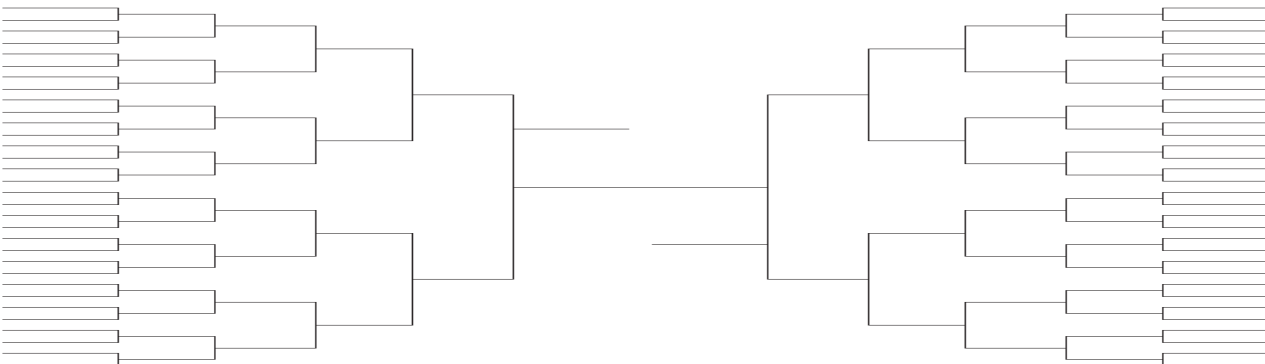


Sample New AXS.TV Webpage:

The Competitions

Originally, teams are formed using a fantasy football “snake” type of draft, with members of the class self-selecting as captains and the captains picking their own team members. As the class evolves and gets deeper into the semester, the team-picking process morphs into a fantasy football “auction” type of draft. Competitions are constructed using a very simple structure. We only compare two teams at one time in a head-to-head competition, with the winner advancing to the next round. After reviewing a team’s PowerPoints, specific documents, and spreadsheets (handed in prior to the competition), teams are bracketed according to the diagram below. Additionally, we encourage teams to compete against other teams from different universities. For example, the top four teams from one university could move on to compete against their counterparts from other universities in an inter-university competition between the most prestigious schools in the area. To further increase exposure, school pride, and small and medium-sized enterprises (SMEs), *as well as* student participation, the competition will be tracked by video in a reality TV format.

Competition Bracketology:



In the first round of competition, teams are given 2.5 minutes each to present their solution. The solutions presented at this stage are often practiced and polished. First round winners advance to the second round, during which teams are given 1.5 minutes each to present their solution. All teams have now viewed their competition and can dynamically adapt and magnify their particular competitive advantage over the other team.





The second round winners advance to the third round, where the teams are given one minute to present their solution and their competitive advantage over the other team. At this stage, solutions are practiced, but the true dynamic nature of competitive analysis has begun and is being exploited during the presentation itself.



(Logos courtesy of Google Images, Photos courtesy of Yellow Submarine Marketing)

Because multi-disciplinary teams are such a strong indicator of a successful small business, teams are allowed to “exchange” (hire/fire) team members with other teams, just like in the real world. Teams will find that this approach to talent often leads to the optimum mixture. For example, undergraduate engineers and developers working alongside “foreign-focused” business students is a combination that is often under-utilized.

Individuals and teams will receive positive and/or negative points from each round, depending on their contributions. Grades and points are awarded based on peer and mentor feedback, along with an analysis of the team’s performance at certain stages of the competition. Grades for each competition and points accumulated are considered when calculating the final grade for the course. Team captains will consider an individual’s points and past performances when choosing a new team for their next two-week project. All team members will learn valuable lessons in:

1. Who (team-building): A faster and easier way to accumulate an improved, multi-disciplinary team of top players.
2. Why (customer knowledge): By understanding the customer and their business in their language, teams can better sell the customer their solution.

3. How Much (the numbers): Embrace your business model and your numbers. Answering: “Why is this so [cheap/expensive]?” requires a very granular understanding of your numbers.

A video of Startup Incinerator in action is located at <http://vimeo.com/60534564>.

The Startup Incinerator experience:

- Produces “entertainment,” which is a combination of entrepreneurial education and reality programming. It augments typical business education with the experience gained while “living through” a real small business process.
- Creates businesses and jobs. The opportunities and teams we produce have been tested in real-world settings and are ready to operate a successful startup.
- Rewards small businesses by increasing their visibility and awareness—with special thanks to video footage and community interactions—as well as exposing their team’s resource needs and potential opportunities to our judges and outside participants.

Results and Implications

The results speak for themselves. Each year, we track the outcomes of entrepreneurs and companies that emerge from the course. In the last four years, the course has spawned 21 companies, 19 of which are still operating. Our conclusion is that rigorous experiential learning using the competition method forces the students to learn critical skills more quickly, and has the potential to increase a startup company’s chances for survival. The course projects *require* teams to adapt.

We allow early stage ideas to improve and form a more defined and complete team—faster. We concentrate on: the importance of multi-disciplinary team building; the ability to win and how that promotes repeated success;

how increased customer interaction improves marketing and product; sales techniques developed in a “survival” atmosphere; and how decision-making will be improved by making more, and more frequent decisions. An additional outcome was that judges and mentors were engaged in a “real-time” environment, in some cases attaching themselves to a particular team as counselors and even potential investors.

Student feedback from both The Apprentice and Startup Incinerator has included:

- “Finally – after 4 years - the school is teaching me something that I can absolutely use in the real world.”
- “This course is the reason that I came to CMU. It’s a shame that I didn’t take it until I was a senior.”
- “Thanks – when I went back to Tulane to graduate (post Hurricane Katrina) – as my name was being called – your course was the only course that I could or wanted to remember.”

Next Steps

The key to getting students to understand the four pillars of entrepreneurship (team, sales, decision-making, and granular cash flow) is to get them to *live* the very details of each pillar. Our goal is to continue to engage the students with timely projects that (by their very nature) will emphasize the metrics and processes surrounding passion, price, performance, and pain-killing. The next horizon is international: our next series of projects will involve partnering with other universities and SMEs (small and medium-sized enterprises) outside the US. The “price and quality” advantage given by a foreign SME will allow our students to break through and become true disruptors in the US marketplace. As for the foreign university, the union will give them a competitive advantage as it opens up the largest consumer market in the world (the US) to their SMEs. It is truly a win-win-win.

For the teams:

- It increases the experience quotient in dynamic decision-making, sales, and customer knowledge.
- It teaches improved talent acquisition practices.
- It reinforces cash-flow analysis at a very granular level.
- It exposes teams to connections, levels of expertise, strategic advisors, potential judges, mentors, investors, and social media.

For the universities:

- It introduces an additional framework under which they can teach, monitor, and reward elements such as selling, organizational behavior, and in-depth market research (customer knowledge).
- It offers a way to improve the university's prestige and ranking in entrepreneurial education.
- It opens up avenues to funding sources that may have been previously hidden.
- It allows a university to further connect with the small and medium-sized enterprises (SMEs) in their region, offering them expertise and increased revenue.
- It gives a university's entrepreneurship clubs and departments the ability to revenue share in various competitions and relationships.

Overall:

- It adds an additional fun approach to entrepreneurial education.
- It offers additional methods of communication and hiring via interaction with the local community.

A course syllabus is available upon request.

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