Experiential Entrepreneurship Exercises Journal

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Journey to the Top:
An Experiential Learning Activity for
Engineering Entrepreneurship

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Abstract:
The objective of this project was to expose first-year engineering students to concepts associated with an entrepreneurial mindset and to capture their perceptions of this exposure. To accomplish this goal, we developed a board game that focused on the different stages of the design process, the importance of ideation, the risks and rewards that exist in entrepreneurial decision making, and the effects of competition. We piloted the game in a first-year engineering classroom and received feedback from participants at the end of the game. The participant feedback demonstrated that the game was successful in increasing awareness of entrepreneurial concepts.

Keywords: Engineering Entrepreneurship, Experiential Learning, First-Year Students, Game-Based Learning

Manuscript Subject Area: Entrepreneurial Mindset, Engineering Entrepreneurship, Entrepreneurship Education

Subject Topic: Decision making, ideation

Student Level: First-year Engineering Students

Time Required: 60 - 75 minutes

Recommended Number of Students: 20 - 30 Students

Concept:

Game Background: The acceptance of entrepreneurship education as vital and its popularity for use in higher education curricula is steadily increasing (Brooks et al, 2008). Specifically, entrepreneurship education teaches crucial skills including product design and development, prototyping, technology trends, and market analysis (Nelson & Byers, 2010). Consequently, the field of entrepreneurship is gaining traction within engineering education. Engineers benefit from being entrepreneurial, as they are expected to have a positive presence in areas of the workforce beyond technical acumen (Byers, Seelig, Sheppard, & Weilerstein, 2013). According to Byers and colleagues (2013), at least 41 institutions that offered comprehensive engineering programs also offer some form of entrepreneurship education to their engineering students. Also, most of these universities consider entrepreneurship education as more than just learning how to start up an organization, as they consider it a leadership training initiative as well (Nelson & Byers, 2010). Engineering education that focuses on entrepreneurship has proven to positively affect engineering students (Dabbagh & Menascé, 2006; Nichols & Armstrong, 2003). Dabbagh & Menascé (2006) showed that exposing first-year students to entrepreneurship topics early in their academic career helps improve students' perspectives on entrepreneurial engineering. Similarly, Nichols & Armstrong (2003) describe how incorporating engineering entrepreneurship material into an engineering curriculum can enhance many characteristics such as leadership, innovation, and creativity among students. These results support why 58% of the 144 U.S. administrators and faculty surveyed (encompassing 90 institutions) agree that entrepreneurial education should be a required element in the core curricula of undergraduate engineering programs (Peterfreund AR, 2013).

Of interest, however, is how best to implement entrepreneurship education into the engineering curriculum. Research has shown that game-based learning is an advantageous approach to teaching as it promotes engagement and can encourage students to experiment (Drew, 2011; Shaffer, Halverson, Squire & Gee, 2005). Researchers have studied game-based learning in the form of digital games (Chen, Wu, Chuang, & Chou, 2011; Chesler *et al.*, 2013; Ebner & Holzinger, 2007) and board games (Drake and Sun, 2011; Lloyd and van de Poel, 2008). Overall, research within the game-based learning field has demonstrated that games have no negative impact on students in comparison to traditional teaching methods and in many cases demonstrate a positive improvement in outcomes (Bodnar, Anastasio, Enszer and Burkey, 2016). Game-based learning has also been linked to incidental learning in engineering courses – when students learn as a consequence of wanting to complete a game instead of approaching learning with the intent to learn (Ebner & Holzinger, 2007). Further, Verzat, Bryne, & Fayolle (2009) demonstrated that games are an effective vehicle for instilling certain interpersonal skills that have been associated with an entrepreneurial mindset (e.g. teamwork). Taken together, the research indicates that a game-based approach could be an effective means of teaching students about entrepreneurship, and this work explores such an approach.

Our Game
With these game-based concepts in mind, our team developed a board game titled '*Journey to the Top*' – a game designed to replace a traditional lecture session and challenge students to engage in critical thinking related to entrepreneurship. Our game was built upon two key themes. The first entrepreneurial theme was decision making, mostly based on risk-taking or "making decisions and taking action without certain knowledge of probable outcomes" (Dess & Lumpkin, 2005, pg. 148). We utilized the risk-taking concept in the Risk/Reward spaces of our board game (explained further in Appendix B). The second entrepreneurial theme was brainstorming and ideation, which are considered important concepts in engineering. Kuratko and Hoskinson (2014) studied 57 entrepreneurial textbooks and ranked 63 different entrepreneurial concepts in order of importance, finding ideation as the 7th most important concept.

The board game was designed to be implemented with simple materials: a game board, 1 die, 6 different player tokens, 1 stopwatch/timer, 50 Risk/Reward cards, 20 Legal/Ethical Issues cards, 25 Resources cards, 20 Networking cards, 20 Curriculum cards, and 17 Final Question cards. Our prototype of this board game consisted of a board and 6 player tokens, which were in the form of a PowerPoint slide that was projected onto a whiteboard (see Appendix A for the current game board). The game was designed to have no more than six teams. At the start of the game, teams chose a player token, which was placed at the start space of the outermost ring of the game board. Each team was seeded with points so they have the opportunity to take advantage of the Risk/Reward feature of the game. Teams move around the board in a clockwise rotation, and progressively work their way towards the middle of the board, working through the various category cards based on where they land. Movement toward the middle of the board through each of the stages (Brainstorming Stage, Prototyping Stage, Marketing Stage, and the Sales Stage) is based on accumulated points (with 25 points needed to reach the final 'winning spot'). The winning team is the team that reaches the middle of the game board (the winning space) and submits the best answer in the final question. Complete instructions and guidelines for point structure can be found in Appendices B and C. Specific details about each space on the board and associated cards will now be discussed.

Risk/Reward Space: The Risk/Reward Spaces are the most prevalent spaces in the game. Landing on this space grants teams the opportunity to gamble their points in an attempt to double the points they wager and progress closer to the winning space. After landing on this space, the team must decide how many points they would like to gamble and draw a Risk/Reward card. The team does not have to gamble anything, but their turn ends if they choose not to wager any points. If a team has no points to gamble, they cannot draw a card. Also, points that have been deposited into the bank are not allowed to be gambled because they are locked (see "Bank Space" section that follows). Once a team has made their decision on how many points to wager, the instructor draws the top card of the Risk/Reward deck and reads it aloud to the class. If the card is positive, students receive the number of points they gambled multiplied by two. If the card is negative, students lose all gambled points (A detailed example is provided in Appendix D.1).

Legal/Ethical Issues Space: These spaces expose teams to the negative or positive legal or ethical experiences that they may face as an entrepreneur. When a team lands on this space, the professor draws a Legal/Ethical Issues card and reads it aloud. The card either informs the team of the illegal action they have committed and consequence (reduction of points), or commends the team for making an ethical decision (increase in points). (A detailed example is provided in Appendix D.2).

Bank Space: When teams land on the Bank Space, they have the opportunity to lock their points for protection (deposit them in the bank). A team can lock as many points as they desire; however, once they are locked, they cannot be unlocked until the team lands on the Bank Space again. If all points are locked and stored in the Bank, teams are not allowed to use them on a Risk/Reward Space. If a team lands on the Bank Space and wishes to unlock points, they may do so at that time.

Curriculum Space: Landing on a Curriculum Space causes the instructor to draw a card from the Curriculum question card deck and read it aloud. The questions include content that first-year engineering students may have learned during their courses. These questions can be true/false, multiple choice, or short answer questions. These cards only have one correct answer, and players must answer the question correctly to earn points. There is no penalty for a wrong answer (An example of a Curriculum question is provided in Appendix D.3).

Networking Space: The purpose of the Networking Space is to teach students about different scenarios that can occur when dealing with investors, supporters, business partners, or consumers (An example of Networking Space prompt is provided in Appendix D.4). Teams will read through the scenario and will gain points if it is a positive scenario, or lose points if it is a negative scenario.

Lunch Break Space: This space acts as a safe zone (similar to free parking in *Monopoly*). There is no benefit or drawback to landing on this space; however, it does enforce the idea that taking too many lunch breaks does impede success.

Resources Space: The Resources Space awards teams a specified number of points if they answer the question displayed on the card correctly. The questions on the cards refer to different resources found on their campus and how students can take advantage of them. When a team lands on this space, the instructor draws a Resource card and asks the question on the card, if the team answers correctly, they receive points equal to the amount of points specified on the card. If the team answers incorrectly, the team's turn ends. There is no penalty for an incorrect answer (An example of a "Resources" Space question is provided in Appendix D.5).

Final Question Space: When teams have acquired 25 points they can move to the Final Question Space. In order to move past this space and onto the winner's space, teams must win an all-play competition. If there are multiple teams with 25 points on the Final Question Space and an all-play competition occurs, any of those teams can win the game if their answer is chosen anonymously by the instructor. If a team with less than 25 points wins the all-play competition, they are awarded 3 points. The purpose of this space is two-fold. First, it serves as a fun, competitive way to determine a winner, and second, it keeps teams that are behind in the game engaged and interested. The all-play competitions were designed to promote ideation, critical thinking and teamwork, and most importantly, it keeps students engaged (An example of a "Final Question" is provided in Appendix D.6).

Overall, our game not only seeks to provide teams with the opportunity to experience the various components of entrepreneurship such as taking risks, utilizing networking opportunities, and understanding legal issues, but it also informs students about the entrepreneurial resources that their university has to offer. Further, the general purpose of this game is to use game-based learning to expose students to concepts associated with an entrepreneurial mindset.

Student Reaction:
Recalling our goal; to create a board game that could replace a traditional lecture session with an engaging entrepreneurial learning experience. The game was introduced to a first-year engineering class of 36 students. After the completion of this game, the student participants were given an assessment exercise consisting of five questions that asked them to recall, summarize, question, comment, and critique (RSQCC) their experience (Angelo & Cross, 1993). This exercise is provided in Appendix E. For the purpose of this paper we focused on students' responses to Question Two: "Summarize an experience that you had during the game where you felt you were thinking/making decisions like an entrepreneurial engineer." This question allowed our team to understand students' post-game perspectives and whether or not they were thinking about entrepreneurial related concepts.

We reviewed all responses using a grounded emergent analysis approach (Neuendorf, 2002) and found two prevailing themes: brainstorming and decision making. These themes were developed into codes that were used by two undergraduate student researchers to code each participant response. The two coders separately coded the 36 entries and achieved a first-time inter-rater reliability of 0.89 indicating a strong level of agreement (Norusis, 2005).

Specifically, brainstorming was discussed by 11 of the 36 students. For example, one student stated, "When brainstorming different ways to improve [or] design a product, [it] made me feel like an entrepreneurial engineer."

Decision making was discussed by 24 of the 36 students, and one student described that the game challenged them to think critically and make decisions stating,

"We encountered a lot of risky decisions. This whole experience was basically deciding when it is appropriate to risk and how much."

As stated in the Concept section of our paper, brainstorming and decision making were deemed important during the design phase of the board game; therefore, it is unsurprising, albeit encouraging, that these two themes emerged from the data. Since the students primarily referred to these two themes, we can infer that our board game was covering the desired content appropriately.

In addition to thematic analysis, the RSQCC provided additional useful feedback about the game; in particular, future improvements to the game. Many students commented on their likes and dislikes for the various board spaces and scoring procedures. The responses also showed that some students felt that the game was based more on luck than skill. Apart from the "luck" aspect of the game, students felt that the game still maintained a positive competitiveness throughout its duration. Our team has identified multiple improvement opportunities for future iterations of *Journey to the Top.* These include fixing some of the board spaces, improving the scoring procedure, and making the game less random or driving by "luck."

References:
Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers.* San Francisco: Jossey-Bass Publishers.

Bodnar, C.A., Anastasio, D., Enszer, J., Burkey, D. (2016). Engineers at Play: Utilization of Games as Teaching Tools for Undergraduate Engineering Students. *Journal of Engineering Education*, 105(1), 147-200. doi: 10.1002/jee.20106.

Brooks R, Green WS, Hubbard RG, Jain D, Katehi L, McLendon G, Plummer J, Roomkin M. (2008). Entrepreneurship in American Higher Education. Report from the Kauffman Panel on Entrepreneurship Curriculum in Higher Education. http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers /2008/07/entrep_high_ed_report.pdf.

Byers, T., Seelig, T, Sheppard,S., Weilerstein, P. (2013) Entrepreneurship: Its Role in Engineering Education. *The Bridge.* 43(2).

Chen, W.F., Wu, W.H., Chuang, T.Y., Chou, P.N. (2011). The effect of varied game-based learning systems in engineering education: An experimental study. *International Journal of Engineering Education.* 27(3), 482-487.

Chesler, N., Arastoopour, G., D'Angelo, C., Bagley, E., & Shaffer, D. W. (2013). Design of a professional practice simulator for educating and motivating first-year engineering students. *Advances in Engineering Education*, 3(3), 1-29.

Dabbagh, N., Menascé, D. A. (2006). Student Perceptions of Engineering Entrepreneurship: An Exploratory Study. *Journal of Engineering Education*, 95(2), 153-164. doi:10.1002/j.2168-9830.2006.tb00886.x

Dess, G., & Lumpkin, G. (2005). Research Edge: The Role of Entrepreneurial Orientation in Stimulating Effective Corporate Entrepreneurship. *The Academy of Management Executive,* 19(1), 147-156.

Drake, P., Sung, K. (2011). Teaching introductory programming with popular board games. *42nd ACM Technical Symposium on Computer Science Education*, March 9-12th, 2011. Dallas, Texas.

Drew, C. (2011, Nov. 4). Why science majors change their minds. *New York Times.* ED16 http://www.nytimes.com/2011/11/06/education/edlife/why-science-majors-change-their-mind-its-just-so-darn-hard.html

Ebner, M., & Holzinger, A. (2007). Successful implementation of user-centered game based learning in higher education: An example from civil engineering. *Computers & Education*, 49(3), 873-890. doi:10.1016/j.compedu.2005.11.026

Kuratko, D., Hoskinson, S. (2014). *Advances in the Study of Entrepreneurship, Innovation and Economic Growth: Innovative Pathways for University Entrepreneurship in the 21st Century* (1st ed., pp. 54-55). Emerald Group Publishing Limited.

Lloyd, P., van de Poel, I. (2008). Designing Games to Teach Ethics*. Science and Engineering Ethics*. 14, 433-447.

Nelson A.J., Byers T. (2010). Challenges in University Technology Transfer and the Promising Role of Entrepreneurship Education. Kauffman: Emerging Scholars Initiatives

Neuendorf, K. (2002). *The Content Analysis Guidebook*. Thousand Oaks, CA: Sage Publications.

Nichols, S., & Armstrong, N. (2003). Engineering entrepreneurship: Does entrepreneurship have a role in engineering education? *IEEE Antennas and Propagation Magazine*, 45(1), 134-138. doi:10.1109/map.2003.1189659

Norusis, M. (2005). *SPSS 14.0 Statistical Procedures Companion*. Upper Saddle River, NJ: Prentice Hall, pp. 183.

Peterfreund AR. (2013). Epicenter Baseline Survey: Report of Findings. Available online at https://www.dropbox.com/s/7z9hgp67t0mr9sk/Epicenter-Baseline-Survey-Report-FINAL315.pdf

Shaffer, D. W., Halverson, R., Squire, K. R., & Gee, J. P. (2005). *Video games and the future of learning*. WCER Working Paper No. 2005–04. Wisconsin Center for Education Research. http://website.education.wisc.edu/~kdsquire/tenure-files/23-pdk-VideoGamesAndFutureOfLearning.pdf

Verzat, C., Byrne, J., Fayolle, A. (2009). Tangling With Spaghetti: Pedagogical Lessons from Games. *Academy of Management Learning and Education*. 8(3), 356-369.

Appendices:

Appendix A: Board Game Design

Appendix B: Professor's Instruction Manual

The Journey to the Top

Instilling the Mindset of an Entrepreneurial Engineer

INSTRUCTION MANUAL

For 2 to 6 Players (Teams)/Ages 10+

This informative game of a life of entrepreneurship will give students the opportunity to step into the shoes of an entrepreneurial engineer and observe and/or analyze the techniques used to achieve success. Players or teams (we suggest teams of 4 or 5 students, with that noted the directions refer to teams and not players) will engage in risky decisions, learn what it is like to budget, and will ideally develop a basic understanding of what aspects are associated with entrepreneurial engineering. This board game is meant to replace a traditional lesson and it is meant to allow students to engage in a competitive environment in an effort to engage them in learning about this material. With this basic understanding, students will have a new positive perception of engineering entrepreneurship.

Game Contents

Game Board
6 Pawns
1 Die
1 Timer/Stopwatch
50 Risk/Reward Cards
20 Legal/Ethical Issues Cards
20 Resources Cards
25 Curriculum Cards
20 Networking Cards
17 Final Question Cards

Professor's Objective

To introduce students to a new sub-discipline of engineering. To make entrepreneurial engineering seem appealing and not intimidating. To use a game as a method of teaching new engineers what it is like to think, act, succeed and fail as an entrepreneur, and to establish a parallel between entrepreneurship and engineering.

Game Setup

Open up the game board and position the board so that all teams can move their desired pawns (You may also choose to display the game board with a projector, in order to ensure that it is in view of all students). Place all of the pawns on the start space of the outer ring; all pawns not selected are to be left in the game box. Distribute points to all teams at the start of the game (We suggest 5 points, as students will be able to take advantage of the risk/reward spaces from the start but will not be too far ahead in the game). Remove all card decks from the box and shuffle them thoroughly. Place each deck in a space reachable by all teams (Putting the decks in the front of the classroom will encourage students to get out of their seats and move around).

How to Play

To start, every team rolls the die, the highest number goes first. If there is a tie, the remaining teams roll the die again. The order of turns follows a clockwise rotation from the team who rolled the highest number. As a professor, you will monitor the scoring for the game and you will be the judge on who wins points from the final questions.

What to Do on Your Turn

To move, teams must roll a die and move their pieces around the game board in a clockwise direction along the outer ring (The first ring is the "Brainstorming Stage") according to the number they rolled on the die. The board is split up into 4 rings that model the journey of an entrepreneur. The outer ring is called the "Brainstorming Stage", the next ring going towards the middle is the "Prototype Stage" followed by the "Market Stage" and the "Sales Stage". Teams start off by moving around the "Brainstorming Stage" until they acquire a certain number of points (10). Once they obtain this number of points, they proceed to the start space of the next stage. This process is repeated until they reach the final stage and acquire 25 or more points. Stages are related to the number points that a team has at one time. If a team has:

1 → 9 points	Brainstorming Stage
10 → 14 points	Prototype Stage
15 → 19 points	Market Stage

20 → 24 points   Sales Stage

If a team accumulates 25 or more points at any time, they advance to the final question space in the center of the board. On their next turn, they are presented with a final question.

An interesting aspect of the game is that teams can move backward in the game when things do not go their way. For example, if a team is at the Prototype stage (ring 2) and loses points, falling in the range of points corresponding to the Brainstorming stage (outermost ring, ring1), they return to the start space of that stage. While the team is advancing around the ring, he or she will land on a multitude of spaces. These spaces include a "Risk/Reward" space, a "Legal Issues" space, a "Bank" space, a "Lunch Break" space, a "Resources" space, a "Curriculum" space, and a "Networking" space (see 'What Do the Spaces Mean?' below for space descriptions).

The Meaning Behind the Spaces and Their Corresponding Cards

Take a look at game board while reading the following:

Start Spaces: This space is where all of the pawns will start at the beginning of the game, and at the beginning of each level. When a team accumulates the desired number of points to advance to the next stage, they advance to the start space of the next ring (If they are on the "Brainstorming" stage, they advance to the start space of the "Prototype" stage once they obtain 10 points).

Winner Space: This is the final space on the board that each team aims to reach in the quickest amount of time.

Final Question Space: This is the second to last space on the board that each team reports to when they have obtained at least 25 points. In order to move past this space and onto the winner's space, teams must win an all-play competition. The catch: If a team's answer is chosen, and they have at least 25 points, they have won **(whether it is their turn or not)**. This means that if there are multiple teams with 25 points, and a final question card is drawn, those teams can win the game if their answer is chosen (in this case, you, the professor, are the judge for this competition, however you must have students submit their answers anonymously). If a team with less than 25 points answers the question correctly, they are awarded 3 points, which gives them a chance to stay in the game. The purpose of this space is to keep teams that are behind in the game engaged. The all-play competition was designed to promote ideation, critical thinking and teamwork, and most imperatively it keeps students involved.

Risk/Reward Space: The Risk/Reward spaces are the most prevalent spaces in the game. Landing on this space grants teams the opportunity to gamble their points in an attempt to gain double the points they wager and progress closer to the winning space. Before the team that lands on this space draws a Risk/Reward card, they must decide how many points they would like to gamble **(make sure they decide what they want to gamble before the card is drawn)**. A team does not have to gamble anything, but their turn ends with that decision. If a team has no points to gamble, they cannot draw a card. Also, points that have been deposited into the bank are not allowed to be gambled because they are locked (see "Bank Space" section below). Once a team has made their decision, the instructor draws the top card of the Risk/Reward deck and reads it aloud to the class. If the card is positive, students receive the number of points they gambled multiplied by two. If the card is negative, students lose all gambled points.

Legal/Ethical Issues Space: These spaces are where teams encounter negative or positive legal or ethical experiences that they may face in the entrepreneurship field. When a team lands on this space, the professor draws a Legal/Ethical Issues card and reads it aloud. The card either informs

the team of the illegal action they have committed and how great of a consequence they will suffer, or commends the team for making an ethical decision with their work.

Bank Space: When students land on the Bank space, teams have the opportunity to lock their points for protection (deposit them in the bank). If all points are locked and stored in the bank, teams are not allowed to bet them when a Risk/Reward card is drawn. A team can lock as many points as they desire. Therefore if a team locks 15 points, that team guarantees a spot in the Market stage (ring 3). However, once they are locked, they cannot be unlocked until the team lands on the Bank space again. If a team lands on the Bank space and wishes to unlock points, they may do so at that time.

Lunch Break Space: This space acts as a safe zone (much similar to free parking in Monopoly). There is nothing good or bad about landing on this space, however this does enforce the idea that taking too many lunch breaks does impede success.

Resources Space: The Resources space awards teams a specified number of points if they answer the question displayed on the card correctly. The questions on the cards will refer to different resources found on the university campus and how students can take advantage of them. When a team lands on this space, the instructor draws a Resource card and asks the question on the card, if the team answers correctly, they receive points equal to the amount of points specified on the card. If the team answers incorrectly, the team's turn ends. There is no penalty for an incorrect answer.

Curriculum Space: If a team lands on this space, the instructor draws a card from the Curriculum deck and reads it aloud. The questions include content that first-year engineering students may have learned during their courses. These questions can be true-false, multiple choice, or short answer questions. These cards only have one correct answer. Teams must answer the question correctly to earn points and there is no penalty for a wrong answer.

Networking Space: The team who lands on this space draws a card from the Networking deck and follows the instructions on the card. The purpose of the Networking Space is to teach students about different scenarios that can occur when dealing with investors, supporters, business partners, or consumers.

Appendix C: Point System Overview

Table 1: Stages of the Board in Relation to Team Points

Appendix D: Card Examples

D.1.1: An example of a scenario that can play out if a team lands on a positive Risk/Reward space:
Card: "You started a Kickstarter and generated enough funds to begin refining a working prototype."
A team is in the "Prototype Stage" and gambles 5 of their 10 points. Then, if a positive card is drawn, they obtain 5x2 points from the gamble (10), which brings them to 20 total points and allows the team to move to the "Sales Stage" of the board.

D.1.2: An example of a scenario that can play out if a team lands on a negative Risk/Reward space:
Card: "You chose to continue with the production of your product despite some flaws in your design to save money. Unfortunately, the low quality of the product hurts sales."
A team is in the "Prototype Stage" and gambles 5 of their 10 points. Since the card is negative, they lose the 5 points that were gambled and end up with a total of 5 points, which brings them back to the "Brainstorming Stage".

D.2: An example of a card from the Legal/Ethical Issues deck could be:
As a business owner, you did not provide your employees with safe working conditions. The Occupational Safety and Health Administration (OSHA) conducted an audit on one of your facilities. You did not meet standard regulations and you were fined a hefty amount. (-2 points)

D.3: An example of a card from the Curriculum deck could be:
What are Variable Needs?

1. Needs that are fundamental
2. **Needs that change over time**
3. Needs that are obvious
4. Needs that are non-obvious

Correct answer earns 1 point

If a team answers with the correct answer (b), the team is awarded 1 point to their total score. Luckily, guesses are not penalized, and a wrong answer does not earn negative 1 point. Guesses are encouraged because it promotes participation and critical thinking amongst a team. This statement is true for Resources cards as well.

D.4: An example of a card from the Networking deck could be:
You decided to join a like-minded business partner and thus, cut your expenses in half (+2 points)

D.5: A potential question a team can encounter from a Resources card could be:
One of these courses is not a requirement for the entrepreneurship minor. Which one is it?
1. Principles of Marketing
2. Entrepreneurship & Innovation
3. New Venture Development
4. Financing & Legal Aspects of Entrepreneurship
5. **Calculus I**

Correct Answer earns 2 points

D.6: A potential question a team can encounter from a Final Question card could be:

As a Biomedical Engineer, you may be asked to improve the state of prosthetics for people with disabilities. Brainstorm the ways that prosthetic arms and legs could be enhanced in terms of functionality and ease of use. Submit your team's best idea to your professor.

Set a one minute timer. The instructor will select what they think is the best idea.

Appendix E: Recall, Summarize, Question, Comment, Critique (RSQCC)

RSQCC Prompts

1. Recall something you have learned or something that stood out to you while playing this game. (Did anything you have learned or experienced change your view of engineering entrepreneurship?)

1. Summarize an experience that you had during the game where you felt you were thinking/making decisions like an entrepreneurial engineer. (What did you do? What types of decisions did you encounter? If your view of engineering entrepreneurship changed, at what point in the game did it change?)

1. Do you have any unanswered questions regarding engineering entrepreneurship?

1. Comment on an aspect of the game that motivated or discouraged you to learn more about engineering entrepreneurship. (What was your favorite aspect of the game? Least favorite? Was there an aspect of the game that made you want to learn more about the subject? Less about it?)

1. Critique something about the game. (What changes would you make to improve the game?)

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The Entrepreneur Interview

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Abstract

The Entrepreneur Interview is an exercise that allows students an extended one-on-one interaction with entrepreneurs. Through this, students have an opportunity to work on critical skills such as communication and articulation, writing and reflection and evaluation of their closely held beliefs of entrepreneurship. The exercise is a more robust alternative to guest speakers and gives the instructor a method of both reinforcing topics covered during the course of the class as well as exploring avenues of student interest during the post-interview/write-up class discussion.

Keywords: Entrepreneurship Education, Experiential Learning, Interview, Reflection

Manuscript Subject Area: Entrepreneurship, Development

Manuscript Subject Topic: Interview

*Student Leve*l: Undergraduate or Graduate

Time Required: 30 Minutes for Entrepreneur Selection/30 Minutes to 1 Hour for Interview/1-4 Hours for Write-up/20-30 Minutes for In-class discussion

Recommended Number of Students: 10-20

Introduction

Instructors in all disciplines should seek to develop assignments and exercises that result in a high level of student engagement. Student engagement "is what draws students to study the discipline, and teachers to teach it, it defines the relationship between the teacher, student and material…" (Parker, 2002). It makes classes more interesting for both the student and instructor and it requires more than the typical lecture format that is standard in so many classrooms. One way to do this is through the use of interview assignments in entrepreneurship classes, with the students required to select an entrepreneur, conduct an interview through a structured format, followed by an in-class discussion.

In addition to increased interest and engagement, the interview assignment also benefits the student through practice with writing and articulation, which is a critical skill in both business and entrepreneurship. According to a Northeastern University Topline Report of over 1,000 respondents, nearly 60% of executives polled believe that soft skills, such as oral and written communication as well as problem solving, are critical for recent college graduates. However, only 28% said that most recent degree holders had these skills (Northeastern University, 2013). These findings are supported by a recent St. Louis Community College Workforce Solutions Survey, which found that more than 60% of employers said applicants lack communication and interpersonal skills - an increase of about 10% in just two years (St. Louis Community College, 2013). The interview process requires the student to use communication and articulation skills to conduct the interview as well as writing skills when completing the assignment. Given that entrepreneurship students will rely heavily on interpersonal communication as they start and manage nearly every aspect of their ventures, this exercise is particularly relevant.

Finally, the interview assignment is valuable as a reflection tool for students – an active and purposeful process of critiquing our beliefs and assumptions. Often, students enter classes with preconceived notions of what entrepreneurship entails; its outcomes, the successes and difficulties (or lack thereof), amount of work required and in general, taking a fairly linear view of entrepreneurship as a whole. The reflection process is important because it allows people to critique their own assumptions and in doing so, become receptive to alternative ways of reasoning and behaving (Raelin, 2001). An extended interaction with an entrepreneur through the interview process can give greater depth to material presented in class and profoundly impact the student's closely held assumptions. This in turn, may significantly alter the student entrepreneur's decision-making process as they move forward with their own ventures.

Activity Description

Regardless of an entrepreneurship instructor's expertise level, it is important to develop multiple views of entrepreneurship for students above and beyond the standard lecture format. One method is the use of guest speakers, which can help to not only lend an outside perspective but also recount experiences and viewpoints that support material being taught in the classroom. The downside of guest speakers is the short period of time students have to interact with them – typically a single class period – most of which is dedicated to speaking/lecturing, with the requisite Q&A session at the end. The entrepreneur interview activity allows students to have an in-depth, one-on-one interaction with an entrepreneur, exploring a variety of topics in detail, through a structured format, which can be modified based on the needs of the instructor/class.

As a stand-alone assignment, it has great value in not only through an in-depth interaction between student and entrepreneur but also allows the instructor to reinforce class concepts through an outside, third-party perspective. This exercise can serve as a reinforcement of entrepreneurial concepts, as many entrepreneurs will have similar answers with regards to the advantages and disadvantages of starting a business. However, the use of the class discussion portion can allow the students and the instructor explore different perspectives across entrepreneurs and industries as

well as delve into topic areas of student interest, that might not occur during the normal class/lecture structure.

Conducting the Exercise

Conducting the Entrepreneur Interview exercise involves four (4) steps. The exercise can be completed either as a stand-alone assignment or as a combination of assignment and follow-up class discussion, depending on the needs, topics and scheduling constraints of the class. It can be most efficiently conducted as an interview and corresponding paper (Steps 1-3), although it might not generate the highest level of self-reflection without a class discussion (Step 4). The best results have come from conducting the exercise that includes a class discussion, which allows for a comparison of perspectives among entrepreneurs that were interviewed, individual student reactions and a discussion around student self-reflection.

The following assumes this exercise involves all four steps (entrepreneur selection, interview, paper and class discussion):

Step 1: Entrepreneur Interview Participant Selection (30 minutes)
Students begin by selecting an entrepreneur who is willing to be interviewed. There are three (3) requirements that qualify an entrepreneur for the interview (listed in Appendix A). First, the entrepreneur has to be the founder of a business or as part of a team as a co-founder. Because one of the benefits of this exercise is for students to gain the perspective of someone who recently experienced the start-up process, range of responsibilities and associated activities required for operation, acting only as an investor or as a member of a board of directors with no significant role in day-to-day operations would disqualify potential interviewees. Second, the venture must have been started in the past five (5) years. Students find it easier to relate to entrepreneurs who have gone through the start-up process in the recent past or who are still going through process. Because "beginning at the beginning" of the start-up process is a step that cannot be skipped by any entrepreneur and is the next/first step for students who intend to start their own businesses, this has immediate relevance and importance to the students. Third, the venture is not required to be successful. While there is a great deal to be learned from success, failure can be an even more effective teacher. Having the opportunity to learn from entrepreneurs who were not successful allows students to gain a perspective (without the costs) that is not commonly written about in journals or highlighted in classes.

Step 2: Entrepreneur Interview (30 minutes to 1 hour)
Following the selection (and instructor approval) of the entrepreneur, students set a date and time to conduct the interview. Typically, interviews last thirty minutes to one hour. Because most students have never conducted an interview before, it's helpful to give them a brief instructional guide in order to maximize their interview time and gain as much information as possible. A sample guide is listed as Appendix C (Conducting an Interview).

Step 3: Entrepreneur Interview Paper (1 hour to 4 hours)
Students are provided a structured outline via eight (8) questions that are to be answered during the course of writing the paper. The questions cover; a brief introduction about the venture, why the venture was started, the benefits and drawbacks of starting the venture, an analysis of any unusual or interesting concepts discussed by the entrepreneur, a comparison of the entrepreneur's views and information and/or guest speakers' views provided in class and a reflection by the student on what they gained from the interview as it relates to their view of entrepreneurship or starting their venture. Appendix B (Interview Structure) provides the questions.

Step 4: Optional Class Discussion (20 minutes to 30 minutes)
The exercise ends with a class discussion, during which students can discuss the similarities and differences in the answers provided by the entrepreneurs who were interviewed. While there tends to be a great deal of diversity in both the entrepreneurs and their businesses/industries, many of the answers provided – particularly regarding why the venture was started and the entrepreneur's perception of the advantages/disadvantages of starting a business – tend to be similar. However, there are typically stark differences in the answers to other questions, such as unusual ideas or concepts provided by the entrepreneur and the student's own answers about self-reflection during the interview process. This opens many avenues for discussion, and lets the instructor choose between one that is more generalized, specific to themes/needs of the class or delve into areas that the students find particularly interesting about the interviews. The list of questions is provided in Appendix B (Interview Structure)

Selected Student Reactions
The following student reactions were prompted by asking participants to speak about their interview/interview questions during an in-class discussion. Answers have been shortened for article length requirements. The following questions were discussed:

What the entrepreneur believes the drawbacks (if any) are of starting and working in a new venture.
Although there are many benefits to starting a business, there are always drawbacks, especially ones that you don't anticipate. He [the entrepreneur] explained that when he started his own business he thought he would be able to set his own hours, but instead he got a lot of long nights. He was no longer "on call" to his (former) boss, requiring him to answer his phone at all hours of the day and sometimes night, but now he had to take calls from his employees, regardless of the time. Whenever they needed help, he had to step in, explain, teach and resolve the issue. He often struggled with this because his expectations for his employees was high. He also felt that he was no longer working for just himself and his family. He believed he was now responsible for the success of his employees and their families, which was added pressure.
Jesus

Analyze what the entrepreneur has said and identify interesting or unusual ideas or concepts.
One interesting and unusual key point that James [the entrepreneur] talked about was weakness and vulnerability. He believes that for any client or customer, it's fine to show a bit of weakness. So many business owners want to demonstrate that they have everything perfectly under control, when most of the time, this isn't really the case. Allowing clients to see some of your weakness humanizes you and that's a good thing. This can lead to a greater level of trust and the relationship is a little more intimate, making it stronger in the end. Having strong relationships with your clients means they will likely be there for the long-term, which is where real money and your reputation is made.
Justin

Compare what the Entrepreneur said to what was discussed about entrepreneurs/entrepreneurship in class. Are they similar or different? Why?
I believe Alex [the entrepreneur] hit on a number of important topics discussed in class, the main one being about doing your homework and research. We learned in class that analyzing the market, industry and competition for our product or service is an important step of the process. Doing research beforehand can help provide an entrepreneur with valuable information such as the current needs of customers, what areas the competition is currently lacking in, and discovering emerging trends that could be capitalized on.

Alex also spoke on the topic of entrepreneurial readiness, and I can personally relate to his sense of fear as he started his venture; I often wonder if I am truly prepared to take on the risks and requirements necessary to open my own business? I learned that there will always be uncertainty in any business though, and there will always be some amount of risk; but I believe the important thing to remember, as Alex stated, is to take that first step.
Jennifer

References

Northeastern University and FTI Consulting (2013). *Preparing Graduates for Success Topline Report*. (Report Number 1). Boston, Massachusetts: 1-18.

Parker, Jan (2002). A New Disciplinarity: Communities of Knowledge, Learning and Practice. *Teaching in Higher Education*, 7(4), 373-386.

Raelin, J.A. (2001) Public Reflection as the Basis of Learning, *Management Learning* 32(1): 11-30.

St. Louis Community College (2013). *State of St Louis Workforce 2013*. (Report Number 5). St. Louis, Missouri: 1-109.

Appendix A:

Entrepreneur Interview Participant Requirements

The requirements for the entrepreneur that you interview are:

1) They must have started their own business or been part of the original founding team.

2) They must have started the venture within the last five (5) years or have been actively in business within the last 5 years.

3) Success or failure of the venture is not important.

Appendix B:

Interview Structure

Entrepreneur's (Interviewee) Name:

1. A brief introduction of who the entrepreneur (interviewee) is and what their venture is about.

2. How and why the venture was started.

3. What the entrepreneur believes the benefits (if any) are of starting and working in a new venture.

4. What the entrepreneur believes the drawbacks (if any) are of starting and working in a new venture.

5. Analyze what the entrepreneur has said and identify any interesting or unusual concepts or ideas.

6. Compare what the Entrepreneur said to what was discussed about entrepreneurs/entrepreneurship in class. Are they similar or different? Why?

7. Compare what the Entrepreneur said to what the guest speakers in class have related about their personal experiences. Are they similar or different? Why?

8. Reflect on what the entrepreneur has said and what you gained from the interview as it relates to your perception of what it is to be an entrepreneur and/or your venture.
Appendix C:

Conducting an Interview

Step 1

First, contact the entrepreneur you have selected and make an appointment for the interview. Be sure to explain why you want the appointment to give a realistic estimate of how much time you will need – most likely 30 minutes to 1 hour. Let them know that they will be recorded. Please be aware that the interview should take place well in advance of the assignment due date. Entrepreneurs are busy! Recognize the possibility that they might have to cancel unexpectedly and reschedule.
Note: Consent to record conversations varies by state. Make sure the entrepreneur agrees to have their conversation recorded and do so prior to showing up for the interview.

Step 2

Use the eight (8) required questions for this assignment as a starting point. Organize your thoughts into general categories with specific issues within the questions. When questioning:

- Use open-ended questions. Open ended questions cannot be answered with a simple 'yes' or 'no' response and will give you more material to work with when writing your paper.
- Ask general questions with more specific follow-up questions to get more detailed information.
- Be sure to use transition statements, such as: "I would like to know more about your experience with _____."

Step 3

Write a Thank You note. This is more than a courtesy. It will also help the entrepreneur remember you and the class favorably should you or other students want to follow-up on the interview.

Hints on Interviewing

1) Briefly introduce yourself: your name, the nature of the assignment, what you are studying, etc. Find some commonality with the entrepreneur.

2) Listen closely and don't let your thoughts wander to other subjects or the next question.
3) Write down your thoughts even though you are recording the conversation – this will help you concentrate on listening closely.

4) Be considerate of the entrepreneur's time, arrive on time or early and end the interview in a timely manner.

5) Try not to be nervous. Entrepreneurs are people too and chances are they are very happy to be identified as someone you would want to talk to and want to share their experiences!

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SEW FOR HOPE: AN OPPORTUNITY TO EXPAND

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Abstract

This case examines a nonprofit with a mission to train and employ refugee women. As the organization explores its future and the possibility for expansion, its founders face several operations management issues including facility layout. The organization is investigating different types of layout for a concept manufacturing location. The case is written for undergraduate juniors or seniors or first year graduate students. Students reading this case will explore theoretical options for the process layouts based on the needs of the organization. The case can be delivered in a hour to several hours depending on the desire of the instructor. Included are detailed teaching notes to facilitate a vigorous discussion on facilities layout.

CASE DESCRIPTION/SYNOPSIS

The primary subject matter of this case concerns production processes and facility layout within operations management. The case presents the not-for-profit Thriftsmart and one of its program partners, Sew for Hope, and an opportunity to scale and sustain a new entity. Thriftsmart is a thrift store that supports several programs including Sew for Hope.

Sew for Hope is a not-for-profit that trains advanced sewing skills to refugees in middle-Tennessee. Once the individuals are trained the organization assists them in finding gainful employment. The organization offers other support for the refugees such as ESL (English as a Second Language), GED (General Education Development/High School Diploma equivalency), and basic community integration support such as knowledge about banking, transportation and the education system. The organization's mission is to "teach the art of sewing to those in the refugee community in Nashville, Tennessee to give them marketable skills for employment in a sewing occupation or to create their own business". The case provides an overview of Sew for Hope's current production operation as well as information regarding a recent opportunity to scale its operation from a small back closet (project layout) to a flexible layout capable of higher production volumes.

After reading the case, the reader will feel compelled to answer the following questions. How realistic is its operational plan, going from a project layout to a more flexible layout capable of higher production? What options for facility layout should be considered?

The case has a difficulty level appropriate for a junior or senior level undergraduate course, although it may be used at a first-year graduate level, depending on the amount and complexity of the background information that is assigned. The case requires one hour (if the goal is class discussion only) to three hours (if the instructor's goals involve presentations by individuals or teams of students).

This is a relevant topic for students studying operations management, or strategy to successfully create a sustainable and scalable operation.

Thriftsmart

In 2004, Dick Gygi and Tres Scheibe co-founded ThriftSmart, a thrift store that's mission is "To provide value to customers, opportunity for employees, and benefit to charities by operating the best thrift stores in the world and promoting thrifty living - all for God's glory." ThriftSmart uses a pass-through economic model that sells donated goods similar to other thrift store models. As a 501(c) (3) not-for-profit organization, ThriftSmart supports charities and programs that align with its mission.

Rita and Joe Adkins were energized after attending a Thriftsmart fundraiser in support of its refugee programs. Touched by the women's stories of hardship and struggle integrating into the US culture and motivated by the prayer of St. Francis of Assisi that encourages individuals into transformation, travelling towards a state of wholeness and wellbeing, Rita committed to help these women. The prayer reads:
"Lord, make me an instrument of thy peace.
Where there is hatred, let me sow love,
Where there is injury, pardon;
Where there is doubt, faith;
Where there is despair, hope;
Where there is darkness, light;

And where there is sadness, joy.
O Divine Master, grant that I may not so much seek
to be consoled as to console,
to be understood as to understand,
to be loved, as to love.
For it is in giving that we receive,
It is in pardoning that we are pardoned,
and it is in dying that we are born to eternal life."
— St. Francis of Assisi

In May 2012, Rita started Sew for Hope. The mission of the new program is *"teach the art of sewing to those in the refugee community in Nashville, Tennessee to give them marketable skills for employment in a sewing occupation or to create their own business".*

Today, Sew for Hope addresses the lagging skill set of immigrant women by teaching marketable and basic assimilation skills. Each student pays a small fee to participate in a 10-week learn-to-sew program, and upon completion of the course each student receives a sewing machine which can be used to generate income. Sew for Hope helps its graduates seek, apply, and interview for jobs that require the skills developed in the program. As of May 2015, over 100 women have graduated from the program (see Figure A). With increasing number of graduates from the program, Rita faces increased pressure to find work for the graduates.

Figure A | Sew for Hope Graduation 3rd Quarter 2014

Graduation 3rd quarter 2014

Source: www.sewforhope.org

Refuge Concerns and the Creation of Sew for Hope

Tennessee is home to one of the nation's largest refugee populations, nearly 65,000 in 2015 (Catholic Charities of Tennessee, 2016). One thousand refugees from Kurdistan, Somalia and Sudan (among other nations) are relocated to Nashville each year and with recent international conflicts, this number is expected to increase. Once refugees are relocate they are given six months to begin repayment of the travel costs associated with relocation. Refugees who are 18 years of age or older must find gainful employment within the first six months after arriving in the United States (IOM, 2015). One of the biggest barriers to repaying the travel loan is access to work. Many of the refugees do not speak English, lack marketable skills, and do not understand the process to gain employable skills. Other challenges include religious beliefs that prohibit certain types of work or

women who care for children and are unable to leave home to work.

Traveling Heart Bags
Sew for Hope's first manufacturing contract is to produce the Traveling Heart Bag (see Figure B). The Traveling Heart Bags are made for the Traveling Postcards program of the Women's Wisdom Initiative (Traveling Postcards, 2015). The bags are provided free of charge to rape crisis centers, domestic violence shelters, hospitals and universities that serve victims of sexual assault. The sequence of steps for constructing a Traveling Heart Bag is provided in Figure C. The process includes making (pre-production) bag kits ahead of time. The pre-made kits are provided to individual seamstresses who take the kits home to assemble through the identified steps to create a Traveling Heart Bag.

Figure B | Traveling Heart Bag

Source: http://www.travelingpostcards.org/projects-hospital-bags

Potential Production Space
The partnership with the Women's Wisdom Initiative provides an opportunity for the Sew for Hope graduates to earn some money while using their newly acquired skills. The number of Sew for Hope graduates has surpassed the demand for woman needed to sew the bags. Further, the demand for the bags remains flat and inconsistent which makes planning a challenge.

ThriftSmart secured a vacant warehouse space adjacent to its flagship store in Nashville that previously held a karate studio. The facility had minimal infrastructure, two offices, a bathroom, a hip-high wall that ran the length of the performance arena, and a glass wall separating the performance arena and a viewing/sitting area at the front of the facility. (See Figure D).

Dick Gygi suggests that the new production space should accommodate at a minimum 7 sewing stations, 1 cutting areas, 10 fabric bins, and 5 material storage areas. However, if sales of the new bags increase, doubling all equipment may be required (e.g., 14 sewing stations, 2 cutting areas, 20 fabric bins, and 10 storage areas). As well, the facility layout has not been decided upon and would be dependent upon the type of manufacturing process chosen. Dimensions of various types of manufacturing components are shown as Figure E.

Figure C | SEQUENCE of STEPS for Traveling Heart Bag
(Pre-work kit building) – Cutting

1. Cut 20x36 for bag and lining
2. Cut two 12" circles for bag and lining
3. Cut one 33x5" strap for bag
4. Cut two 1 1/2" fabric zipper stops for bag and lining
5. Cut one 7x9" pocket for bag (9" direction of pocket must match the 36" grain line of the bag)
6. Cut one 18" length of zipper tape for zipper, insert the slide into zipper tape

Sewing
1. Make strap by folding in half lengthwise and stitching along that edge then folding in the two edges of the other side and stitching along the edge. Note: old version had the label on the strap, the new version will probably have label sewn to the pocket. (Top and bobbin thread are bag color)
2. Sew lining circles and small pink tabs into lining leaving one half of one circle unsewn (top and bottom threads are lining color, hot pink)
3. Sew label to pocket (top thread is burnt orange, bobbin is bag color)
Make pocket (both threads are bag color)
4. Sew pocket to bag (both threads bag color)
5. Sew zipper stops to right side of zipper (both threads are black)
6. Sew zipper to bag (both thread black)
7. Sew outer circles into bag with strap inserted between, stitch again for strength (both threads bag color)
8. Sew lining to zipper with lining on top (pink thread on top, bag color bobbin)
9. Turn bag right side out through the opening in the lining
10. Finish sewing the lining circle as far as possible then stitch folded edges of the remaining seam together to finish the seam (pink thread for top and bobbin)
11. Turn the small lining tab under to match zipper stop seam
12. Topstitch zipper from lining side (top pink, bobbin bag color)

Figure D | Current Building Layout
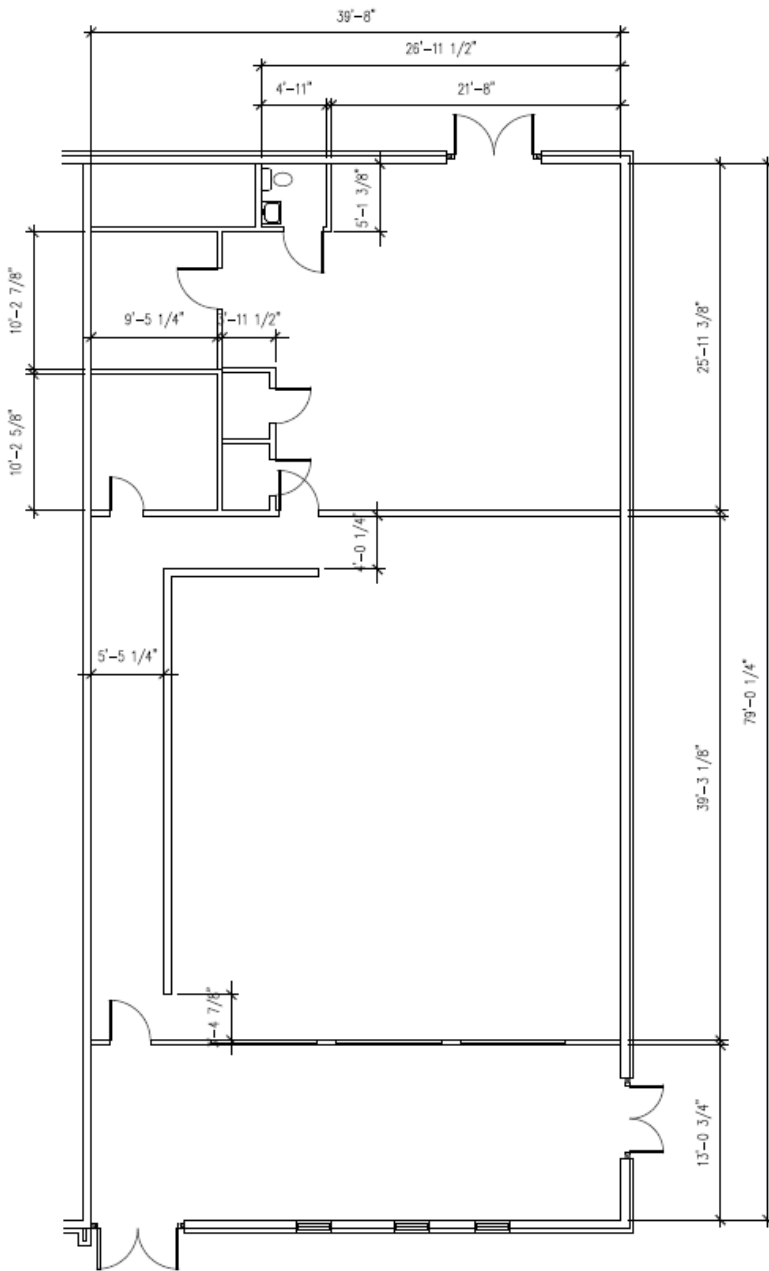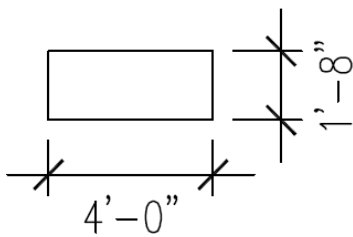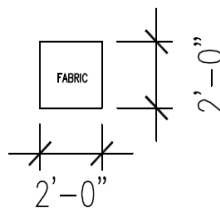(Approximately 40 feet in width x 80 feet in length)
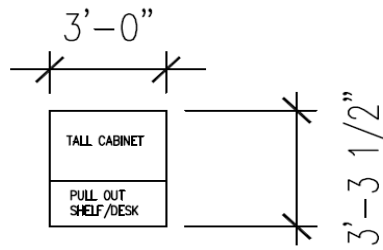
Figure E | Dimensions of Manufacturing Components
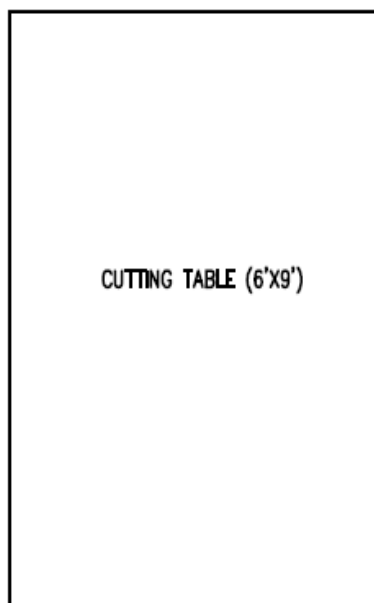
Single Sewing Station
Fabric Bin
Material Cabinet

Cutting Table (6' x 9')

The Future: Sustainability and Scalability

In an effort to find sustainable employment for the Sew for Hope graduates Dick and Rita partnered to develop a "concept" manufacturing facility. The concept site would be used to raise funds to build a full-scale manufacturing facility and recruit apparel contracts that will lead to employing the graduates of the program.

The first step in developing the manufacturing facility is to determine the remodeling needs and layout of the facility. Dick Gygi saw a manufacturing cell layout used successfully for apparel manufacturing through his travels around the world (see Figure F). In contrast, other process models may be more or less suitable for varying levels of customization and volumes of production (see Figure G). Using the Traveling Heart Bags as a model, the organization began to develop time studies and workflow processes.

Prior to the creation of the new sewing operation and the signing of the lease for the new space, Dick and Rita are facing several decisions:

- *What different types of production processes should Dick/Rita consider for the new facility? What factors should Dick/Rita consider when deciding on the production process/facility layout? (e.g., How standardized is the Sew for Hope product?   How much volume is being produced?)*

- *What should the facility layout of the new space be and why? How will the facility layout be affected by the chosen production process? (e.g., project, workcenter, manufacturing cell, assembly line, continuous process)*

- *Dick and Rita have heard from volunteer college students that creating a process map or process flow chart can be valuable. What are some potential benefits of creating a process map?   How can a process map help in quality assurance? Training? How can a process map be useful for continuous improvement? What resources and requirements are necessary to create a project map? Help create a process map for Dick and Rita.*

- *Why do companies often fail to invest the time and resources needed to create a process map? What can be done to change this mentality?*

Figure F | Potential Manufacturing Cell Layout

Source: Dick Gygi

Figure G | Product-Process Facility Matrix: Different Layout Strategies
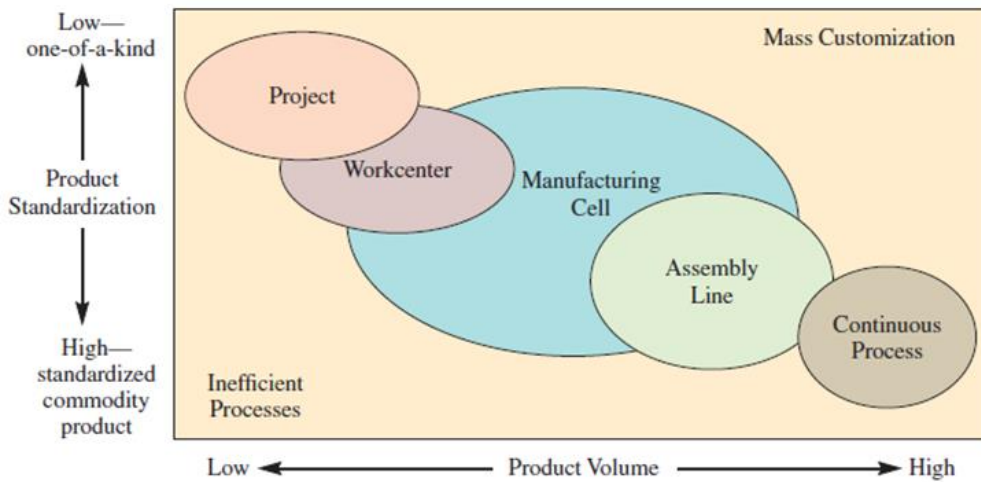
Source: (Jacobs, 2014, p.151).

REFERENCES

Gygi, D. 2015, Work cell design photos.

Jacobs, F. a. C. R., 2014. *Operations and Supply Chain Management.* 14th ed. New York: McGraw-Hill/Irwin.

International Organization for Migration, (2015), available at: http://www.iom.int/ (accessed 3 May 2015).

Sew for Hope, SFH Presentation, available at: http://www.sewforhope.org/SFH%20presentation.pdf (accessed 7 April 2015).
Sew for Hope, www.sewforhope.org, Mission statement, available at: http://www.sewforhope.org/mission.html (accessed 7 April 2015).

Traveling Postcards. Traveling Heart Hospital Bags photo and information, available at: http://www.travelingpostcards.org/projects-hospital-bags (accessed on 7 April 2015)

CASE DESCRIPTION

The primary subject matter of this case concerns production processes and facility layout within operations management. The case presents the not-for-profit Thriftsmart and one of its program partners, Sew for Hope, and an opportunity to scale and sustain a new entity. Thriftsmart is a thrift store that supports several programs including Sew for Hope. Sew for Hope teaches international refugees in the middle-Tennessee area advanced sewing skills in order to build skills for employment. The case concerns scaling the operations from small back closet operations (project layout) to a flexible layout capable of higher production volumes.

After reading the case, the reader will feel compelled to answer the following questions. How realistic is its operational plan, going from a project layout to a more flexible layout capable of higher production? What options for facility layout should be considered?

The case has a difficulty level appropriate for a junior or senior level undergraduate course, although it may be used at a first-year graduate level, depending on the amount and complexity of the background information that is assigned. The case requires one hour (if the goal is class discussion only) to three hours (if the instructor's goals involve presentations by individuals or teams of students).

This is a relevant topic for students studying operations management, or strategy to successfully create a sustainable and scalable operation.

CASE SYNOPSIS

Sew for Hope is a not-for-profit that trains advanced sewing skills to refugees in middle-Tennessee. Once the individuals are trained the organization assists them in finding gainful employment. The organization offers other support for the refugees such as ESL (English as a Second Language), GED (General Education Development/High School Diploma equivalency), and basic community integration support such as knowledge about banking, transportation and the education system. The organization's mission is to "teach the art of sewing to those in the refugee community in Nashville, Tennessee to give them marketable skills for employment in a sewing occupation or to create their own business". The case provides an overview of Sew for Hope's current production operation as well as information regarding a recent opportunity to scale its operation from a small back closet (project layout) to a flexible layout capable of higher production volumes and the concerns for management through the proposed expansion.

These teaching notes are provided to help the professor/instructor lead the discussion of the case with students. Each of the potential areas of discussion follows, including production process and facility layout, financial analysis, sustainability, and an update on the current status of the organization.

Production Processes and Facility layout
Process Issues
The choice of production process and corresponding facility layout are both common operations management problems. The production process often takes into consideration the amount of customization or standardization of the product *as well as* the low or high amount of product volume to be produced.

The layout planning often addresses placement of equipment, work centers, desks, and chairs in order to minimize waste in motion and transportation and to maximize efficiencies.

In the Sew for Hope case, the production process and facility layout of a new facility are key issues that could be explored with the students. As commonly discussed in many operations management texts, certain processes may be more appropriate for certain types of products (See Figure A1)

Figure TN-A1 | Product-Process Facility Matrix: Different Layout Strategies
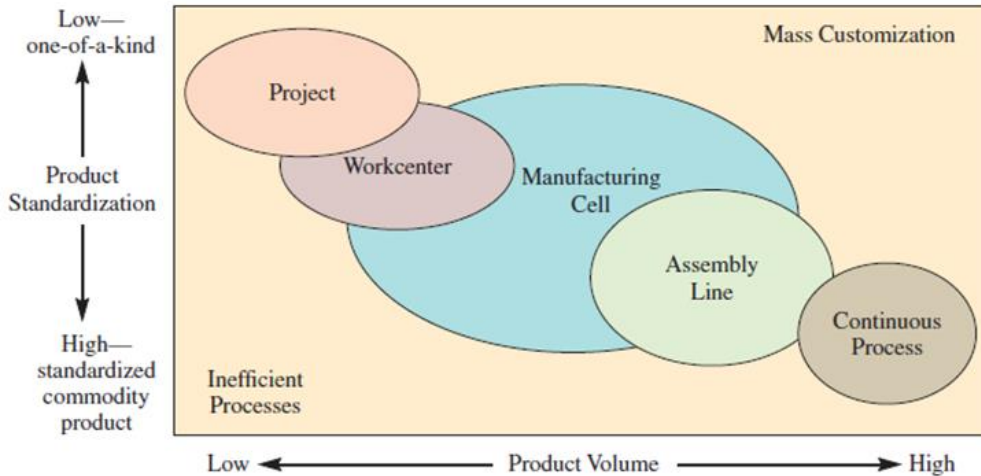
Source: (Jacobs, 2014, p.151).

Layout Issues
Products that are less standardized and have low production volumes may be better suited for a *Project* type of layout. In a *Project* layout, the product stays in one location and the various work teams come to that location to perform the work. (Ex. Custom home, building of a Boeing 787 Dreamliner).

A *Workcenter* may be a more appropriate layout if products are more standardized and could also allow for higher volumes. *Workcenter* layouts are common when similar equipment or tasks are grouped together and allow for efficiencies of common tasks being performed together in batches. (Ex. Stamping of all gears, then machining all gear next, then heat treatment of the gears). The products move from one work-center, or department or job shop, to another through the process.

An efficient way and flexible facility layout is a *Manufacturing Cell*, which allow for a medium level of product standardization and product volume. *Manufacturing Cells* are flexible in that they could encompass products that could also be produced in many workcenter layouts and assembly line layouts as well. *Manufacturing Cells* can operate as stand-alone units (often considered a plant-within-a-plant) where all tasks are completed within the *manufacturing cell.* The stations of a manufacturing cell are often located closely to each other so that operators can cross train and perform multiple functions within the *manufacturing cell.*

An *Assembly line* allows for production of more standardized products at a higher volume. An example of typical assembly lines can be found in the automotive industry (e.g. Toyota Camry Assembly line in Georgetown, KY, or the Nissan Altima assembly line in Smyrna, TN.) *Assembly lines* are best suited for more standardized products in larger volumes.

Finally, a *continuous process*, is suitable for the most standardized product with the highest product volumes.   Often, in a continuous process, it is difficult to separate work in process from the finished goods. *Continuous processes* can deal with liquid products or products made in web form.   *Continuous processes* often run 24 hour operations since it is expensive to shut down and start the operation. (E.g. chemical processes and even diaper making processes are examples of *continuous processes*).

Questions
In the case of Sew for Hope, a manufacturing cell is discussed as an appropriate process for the standardization and product volume being considered.   Some questions that may help facilitate class discussion include:

Explain the different types of production processes that might be considered for any product? What are the factors to consider when deciding on the production process/facility layout? How standardized is the Sew for Hope product?   How much volume is being produced?

Dick Gygi is recommending a Manufacturing Cell production layout for Sew for Hope's new facility. Why might this be an appropriate process? Why not?

Potential Solutions
Figure B1 shows a potential layout for manufacturing cells for the new Sew for Hope facility. The layout shows one initial manufacturing cell with the ability to expand to a second manufacturing cell as needed.   Why is this layout a good layout or not such a good layout? (Note: the space at on either side of the manufacturing cells are office spaces and training facilities)

What other ideas did you have for appropriate production processes for Sew for Hope?   What other ideas would you have for the facility layout?

Students may offer work center or an assembly line as alternatives to a manufacturing cell. It is possible that either of these would be possible alternatives.   However, the manufacturing cell may provide the most flexibility in this case.

Figure TN-B1 | Potential Building Layout
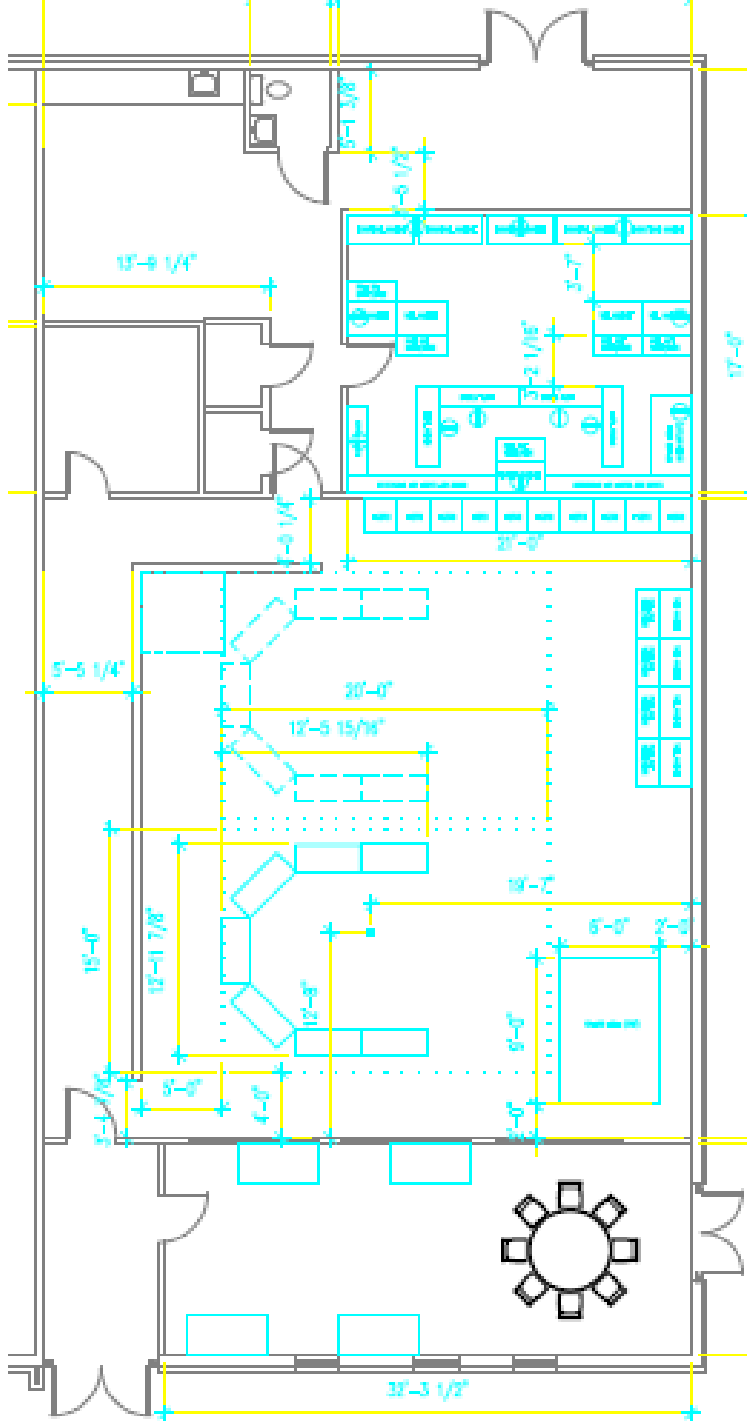
Process Mapping

Process mapping is an important tool in understanding how a process should function ideally, versus how the process actually functions. As well, it is a useful tool for quality assurance, training, and continuous improvement purposes.

However, organizations often fail to invest the time to map their processes. Perhaps, they fail to see the value process maps provide, as discussed above. Or perhaps, organizations believe other

issues are of greater importance. Process maps have been created for the current cutting process and the sewing process for the Traveling Heart Bag and the future state manufacturing cell process.   These process maps are shown as Figures C1, D1 and E1, respectively.

Questions
Some questions that may help facilitate class discussion include:

What is a process map or process flow chart? How do you create one? What are the shapes are commonly used and what do they represent?

Common symbols for process maps include an *oval* to represent start/end, *rectangles* for the process steps, and diamond boxes for decisions.

What are some potential benefits of creating a process map? How can a process map help in quality assurance? Training? How can a process map be useful for continuous improvement? What resources and requirements are necessary to create a project map?

Potential benefits for creating a process map involve improving consistency and quality of delivering a product and/or service. Process maps can also be useful in training new employees.   Mapping out the current state of a process can also help in redesigning the process to make it more efficient.

Why do companies often fail to invest the time and resources needed to create a process map? What can be done to change this mentality?

Companies may fail to realize the benefits of creating a process map. Possibly some managers may not have the skills of producing a map, however, it is relatively simple to do so with minimal training and practice. Others may lack the continuous improvement mindset. It starts with leadership and initiative to want to make things better and the students should be encouraged to take on these tasks if the opportunities ever present themselves at their workplace.

Possible Solution / Flow Chart

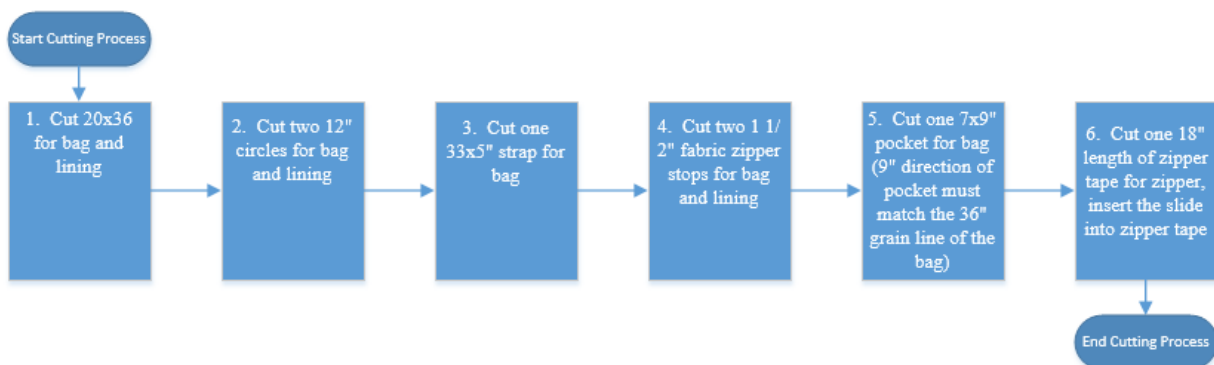**Figure TN-C1 | Current Cutting Process - Flowchart**

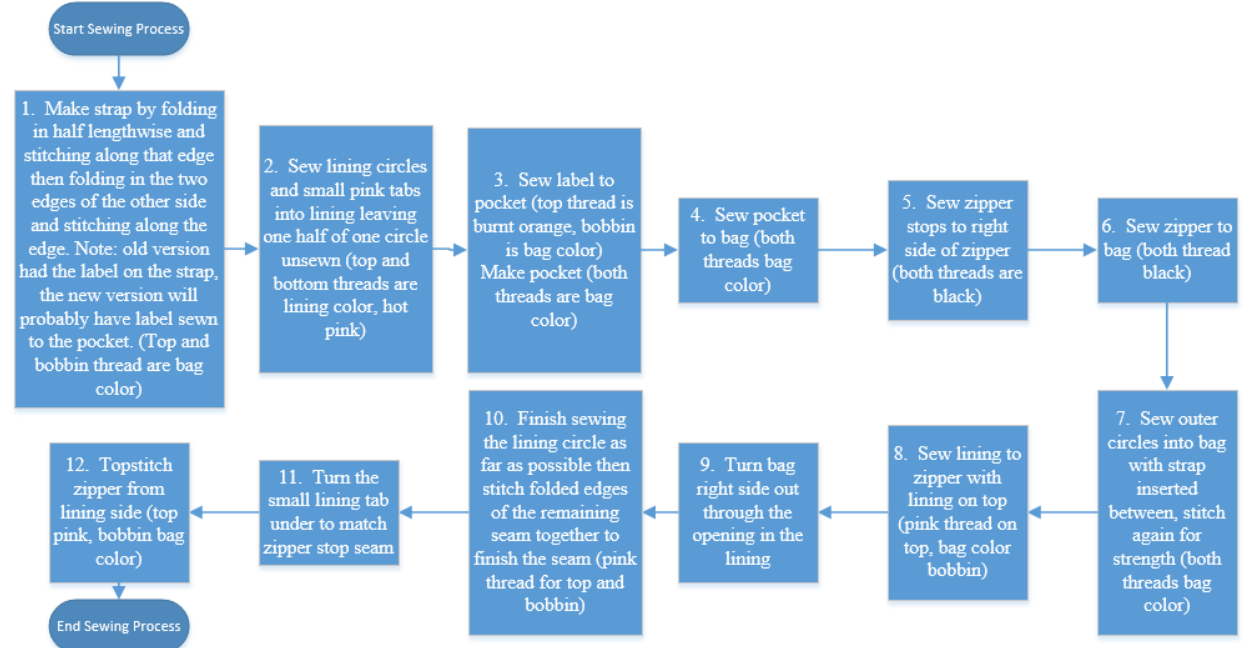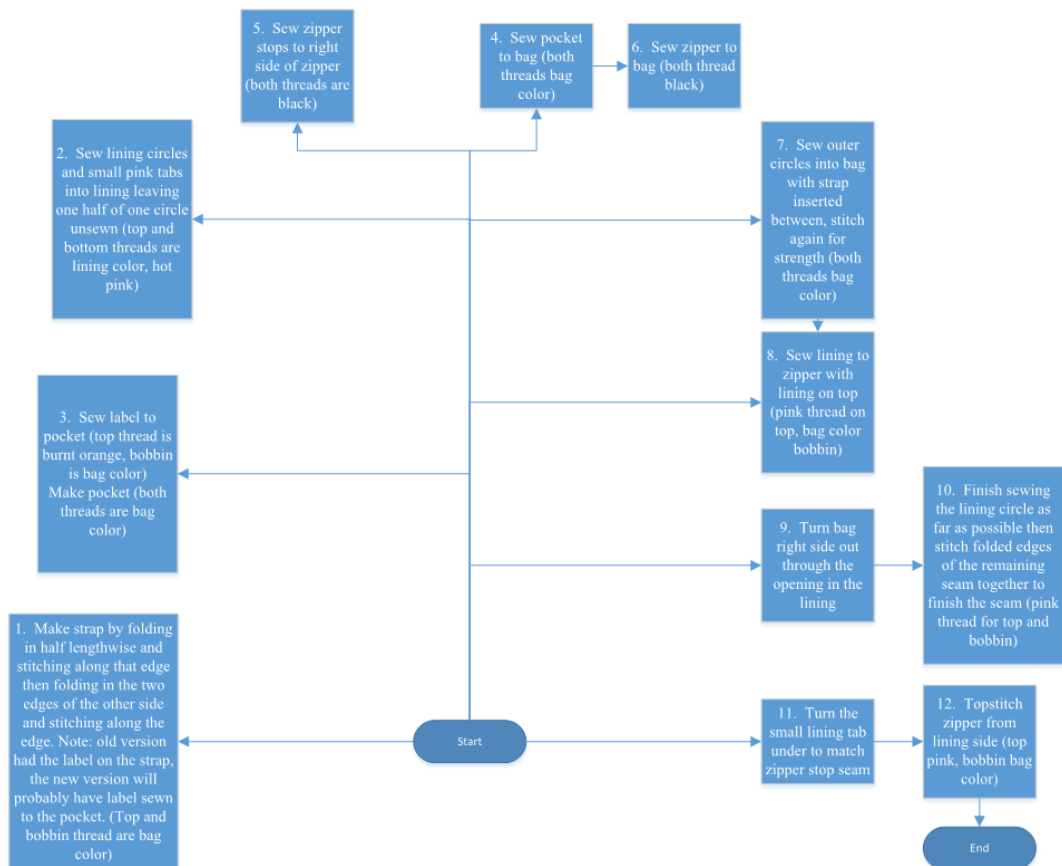**Figure TN-D1 | Sewing Process - Flowchart - Current State - Project Layout**

Figure TN-E1 | Sewing Process - Flowchart - Potential Future State - Manufacturing Cell

Epilogue - Sew for Hope

Training
Sew for Hope has graduated 300 women since its inception. Rita has focused her time on refining the training model to better accommodate the schedules of the women and align with other adult-education training models. Some of the women were unable to attend classes because scheduling conflicts with their children's schedules. Currently, the courses are delivered over a semester term that more closely align with academic calendar of the school system.

Employment of Graduates
Many of the women who desire to work have found reliable employment in the community. The organization has come to realize that although one of its primary concerns is sustainable employment for its graduates, not all graduates seek employment. Many of these women have never had the opportunity to attend school let alone complete any formalized program. Completing the training programs provides increased self-esteem for these women and a sense of accomplishment. Some of the women will not seek employment, rather they will use the newly acquired skills to sew for their families and communities.

Production Facility
The plans to pursue the concept manufacturing facility stalled when Dick Gygi sought external funding for the project. Dick prepared a target list of potential donors including several angel donors, corporate foundations, and religious organizations with funds for investment, but was unsuccessful. Also, while the preparation for request for funds were being made, the relationship between Dick and Rita became strained.

Rita's focus had always been training the women and assimilating them into their new community. Building a concept manufacturing facility was not part of her vision. The stress between Dick's vision of creating a facility and Rita's lack of desire caused personal and organizational conflict. Without the support of Sew for Hope, the social aspect of the concept manufacturing facility lacked its competitive advantage. Currently, Rita is focused on building a training model that can be replicated and licensed across the country for training refugee women.

Organizationally
The conflict between Dick and Rita continues. The two are in the process of severing ties. Rita has applied for 501(c) (3) not-for-profit status as she moves the operations of Sew for Hope from under the umbrella of Thriftsmart. The lack of honesty and transparency throughout this process proved fatal to the plans to create a manufacturing facility. Although the concept manufacturing facility under the Thristmart brand did not materialize, a partnership with local uniform manufacturer has proven to be a positive addition to the Sew for Hope plans for expansion. As Rita plans to expand her training model nationwide, the need for employment outlets is a critical piece. Developing a network of domestic manufacturers is a key component to the success in other markets.

Serious silliness: Breaking the ice with ideation, pitching and networking

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Abstract

In many entrepreneurship courses, students work in teams to initiate and iterate on a venture idea. This exercise provides a quick and fun sample of that ideation and iteration process. Another purpose of the activity is as an ice-breaker for students, while also introducing criteria by which ventures are evaluated. The first part of the exercise demonstrates how diverse ideas can originate from the same resources. The second part teaches students to network and articulate their ideas more succinctly while learning to adapt to new information.

Concept

For context, in my courses I do not assign students to teams. I give them 2-3 weeks to form teams, with the result of a greater sense of ownership of the process and better team dynamics for the rest of the semester. This exercise serves as a means for students to get to know each other while learning some basics about entrepreneurship and working on their professional skills. This exercise gives all teams the exact same resources to use as the basis of a business idea. As teams develop their idea, they are pushed to think beyond a product or service, to think in terms of a revenue model, pricing, marketing, sales and distribution, thereby introducing some of the basic evaluation criteria for most entrepreneurship courses. When teams have settled on their idea, each team is asked to present it to the class. This reveals the diversity of ideas and ways to implement similar ideas and that customer development is usually more important than worrying about tangentially related competition. After the team pitches, all students are asked to stand up, walk around and pitch their team's idea to at least 5 (ideally 10+) other classmates. This allows them to get to meet each other and teaches them basics about pitching, listening and adapting to feedback. The

networking is interrupted to ask students to reflect on how their pitch changed in terms of duration, content, and style, revealing the value of practising and iterating to achieve mastery.

Set-up
In this exercise, students for small teams (3-5 people) and are all given the same random set of three words. Temporary teams can be formed for only this exercise. When choosing a set of words to use, aim for words that have multiple meanings or interpretations (e.g. as a verb or noun, or depending on context) and try and select words that are unusual for business ideas – i.e., less like 'book, card, touch' and more like 'snake, mushroom, blast' . All three words must be included in the business idea. Silly ideas are encouraged to make the process more fun. Teams usually initially gravitate towards developing a product or service idea, but should be reminded that businesses need revenues to survive and that they should think about sources of revenues and channels through which they would market sell the product or service. For the first ~10 minutes the teacher simply goes from table to table and urges teams to get from product idea to business idea.

Team pitches
When it looks like all teams have even just a vague pitch for their idea, interrupt the whole class (using a bicycle horn or bell works well to cut through the noise). Have one member of each team pitch the team's 'random' business idea, following prompts, like:
- "Hi, I'm _____. I'm a studying (faculty).
- Our idea was to (solve problem X).
- The business would make money by _____"

After each pitch, simply encourage applause and move on to the next team. After all teams have pitched, is a good time for a short 2-5 minute debrief, noting the diversity of concepts, markets, (recurring) revenue models, and business models, considering that all teams started with the same keywords. Time permitting, let teams volunteer to have their pitch evaluated using course criteria or other popular templates, such as the Pollenizer Universal Pitch Deck:
http://www.slideshare.net/liubinskas/pollenizer-universal-pitch-deck

Examples
In the most recent cohort, all teams were given "Fish, needle, pocket" as the three words. Using the whiteboards in the classroom, teams visualised their product/service and business idea. These included:
- A miniature 'needle' camera to be mounted near the hook while fishing. The camera then projected to an app mounted on the fishing rod, taking all the guesswork out of what is happening below the water's surface and find the 'pocket' of fish. The camera and app were priced at $399, competitive with other small underwater action sports cameras, and distributed via fishing and electronics retailers.
- A virtual reality fishing app 'Fisherman's GO', riffing off of the recently popular pokemon go. The app would include catching virtual fish, thus sparing the lives and health of real fish, and be funded by marine conservation societies and ads. The objective of the app is to raise awareness of overfishing. The fishing experience fits in your pocket via the smartphone and includes a compass needle to show you where to catch your next virtual fish.
- A premium, boutique, environmentally responsible t-shirt. While the main part of the shirt is made from cotton, it includes a front pocket made of sustainably sourced stingray leather (sewn on via a needle). The style is aimed a wealthy fashionistas who would buy it via boutiques or online.

Networking
A follow-up exercise for students to (i) get to know each other, and (ii) work on their pitching skills, is for all students to then get out of their seats, walk around the classroom and pitch their team's 'random' business idea, following the same prompts as before. Limit this round to 5-10 minutes and set the goal of pitching to at least 5 other people.

Debrief the experience by asking students how many people they pitched to, commending people who had the most iterations. To reveal how well a given pitch is understood, ask any student who they pitched to last, then as the person they pitched to to repeat what they heard. Draw out examples of:
- How did your pitch change?
- Did the concept change? Get more complex or simpler?
- Did your story-telling get better? More efficient? More detailed?
- How did you feel about pitching? More confident?

Alternative version
I often follow up with an alternate version to repeat the experience, but without making it too repetitive. As before, students form temporary teams. Instead of being given the same three random keywords, students are first asked to individually write down 2-3 personal interests they have (e.g., sports, hobbies, careers, languages). Then as a team, agree on three to use as the basis of their team's idea. Beyond this, the exercise follows the same process of pitching as a team, then individually. This version has more variance of idea, sometimes a little less frivolity or fun, but more getting to know classmates.

Theoretical background
The main version can serve as an introduction to the structure and content of pitches and business models. Brief analysis the ideas put forward often reveals that they are informed by prior experience (what we know) and often play into who we know, thus demonstrating an effectual approach (Sarasvathy, 2001). The effectual approach is enhanced with the alternative version, where the link to prior experience and knowledge is more explicit. The practice of networking is an experiential way to learn self-efficacy and to develop self-confidence (Morris et al, 2013), all while getting to know classmates and seed the process of forming teams for the major course projects.

Student Reaction by Nicolai Heinzelmann (International Student, Management)
"The exercise that we performed in the first lecture of Innovation & Entrepreneurship was a fun group activity that both stimulated interest about the course and set a fruitful basis for the whole curriculum. Not knowing other students at the very beginning of the semester, it was a great opportunity to get to know class mates by forming small groups on our own. The activity allowed to chat and connect with several fellow students in an open and fun atmosphere and, thus, was a first step in actually becoming friends with them. The exercise was also fun, due to the three given words that seemingly had no relation at all and consequently required a high level of creativity in order to come up with a product or service that would represent them in a certain way. It was really interesting to see in how many different ways the words could be understood and combined as well as what different perspectives other group members had on the same topic.

The next challenge was to structure our idea in a more business-oriented manner surrounding it with figures about market potential, marketing and sales. Assessing our creative ideas in terms of their economy underpinned that economic aspects are also highly relevant in entrepreneurial thinking. Finally, pitching the idea to the rest of the class gave a first impression what is important about business pitches. All in all, this exercise was a nice opening activity that not only in introduced key elements of the curriculum but also allowed to get to know other people in class."

References

Morris, M. H., Webb, J. W., Fu, J., & Singhal, S. (2013). A Competency-Based Perspective on Entrepreneurship Education: Conceptual and Empirical Insights. *Journal of Small Business Management*, 51(3), 352-369.

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243-263.

Angel group simulation – Turning the tables on students

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Abstract

In most entrepreneurship exercises, students are the entrepreneurs. In this interactive exercise, the tables are turned: teams of students are angel investors, who compete against each other to allocate their seed funding. The exercise involves two rounds of a real-time simulation using google docs and portfolios of 1-page executive summaries. At face value, the objective of the simulation is to perform better than other teams, including guest angel investors. The pedagogical value includes helping increase awareness of the criteria by which their own ideas are judged. The debrief also helps students learn the motivations for angel investment deals.

Keywords: angel investing, simulation, real-time, opportunity evaluation

Manuscript Subject Area: Entrepreneurship and angel investing

Manuscript Subject Topic: Investment capital, due diligence

Student Level: Undergraduate or Graduate

Time Required: 60-90 minutes (for both rounds)

Recommended Number of Students: 10-70 (enough to form 5-12 teams)

Concept

In this exercise, teams of students role-play angel investors. The objective of the simulation is two-fold: to make more money than other teams, and to lose less money than other teams. The simulation is played in two rounds. In the first round, the investment decisions of each team are largely independent of those made by other teams. In the second round, the investment decisions become interdependent. This interdependence can completely change the competitive dynamics. To liven up the simulation, an angel investor may also participate, with the additional goal for student to try and beat the investor's results. Having the investor's voice during the debrief immensely enriches the learning for the students, too.

The outcome of this exercise is that students learn about different investment strategies by investors. This prepares them for understanding what investors look for in different deals. By turning the tables to make entrepreneurship students the investors, these students realize how important it is to know the criteria by which their own business ideas will be evaluated, including ideas developed for course credit and extra-curricular competitions.

Set-up

To set each simulation up, each team is handed a single portfolio of 8 to 10 one-page executive summaries, placed face-down on their tables. Executive summaries can usually be obtained from your university's business competition. The recentness or age of the executive summary is secondary; ones from 5 or 6 years ago still work well for this exercise. All teams start with the same seed funding (e.g., $200k per team) to allocate it across the presented deals. Not investing defeats the purpose of being a fund and is penalized by losing 20% of the uninvested capital at the end of each round.

Simulation mechanics

Prior to the simulation, students may be told that startups that have higher growth aspirations are less likely to attaining them, but that high growth will also not be attained if it is not aspired. Mathematically, this phenomenon can be approximated (see also Appendix 1):

- M = Aspired multiple (e.g., the venture's valuation increases by M from the investment until a liquidity event or exit for the investor)
- $p(M) = Rand()^M$. The probability of attaining the multiple is a random number between 0 and 1, to the power of M. This makes higher aspiration deals proportionately less likely.
- Af = Amplification factor. Fund managers aren't just placing bets. They're providing their own experience, advice and contacts to amplify the value of each deal and the probabilities that an exit will occur. For example, a 2012 slide deck from a fund-of-funds argues that their portfolio based approach will result in an average factor of 2.5.
- $rM = M * p(M) * Af$. The realized multiple for a given deal is a multiplication of the above factors.

For this simulation to work, each deal that is presented to the students needs to be assigned an aspired multiple (not disclosed to the students). These can be estimated from the text in the executive summaries, by picking up on queues whether the firm has lower aspirations as a life-style business, or whether it is aiming to become the next 'unicorn'. Because of the strong random effects, it is not required that this value is precise. It also helps if each deal spells out how much capital they are looking for. If not available, this can also be estimated crudely and still facilitate great discussion.

Making deals

1. All teams are provided a URL to a read-only google spreadsheet where they can record their investments, allowing the teacher and other teams to see each deal in real-time (see Appendix 2).
2. To launch the round, teams are given 10-15 minutes (a deliberately short time frame) to make sense of each executive summary and to allocate their funding. As soon as this reading period starts, the spreadsheet can be switched from read-only to editable by anyone who has the URL. Students must refresh their browsers to edit the spreadsheet.
3. Students may make decisions for any number of reasons, including copying those of other teams. The teacher's role is not to answer questions about each deal, but to encourage teams to finalize their decisions.
4. Around 10-15 minutes, when teams have finalized their decisions, the spreadsheet is made read-only again to lock in the deals.

Debrief

When the clock runs out or all teams are done allocating their capital (whichever is first), the results are revealed and debriefed. Revealing the results is done in three steps. First, the rows in the spreadsheet (row 22-26) are revealed that summarize the aspired and attained multiples for each deal. The random numbers change the results with every edit to the spreadsheet and need to be 'frozen' to continue. This is done by copying and 'pasting values' in row 24. Secondly, the results by team (columns L-N) can be revealed. Third, and only for round 1, the top 6 rows can remain hidden until the debrief. These summarize how much a startup has received in relation to how much they are asking.

With the outcomes revealed, discussion emerges almost instantly about who won how much, and why, including "Was there a winning strategy?" such as investing more in fewer deals, or spreading investment around equally. Individual deals can be discussed, including picking out teams who over-invested, i.e., they offered more money to a startup than the startup was asking for. Any team may also be asked to explain why they invested the way they did. Did they invest in firms that matched their own professional experience or training? Did they follow the angel investor or teacher's investments? Why did they invest in deals that provided little evidence vs those with numbers? Having an angel investor in the room confirming all the quirks in rationales about why angels invest the way they do helps students realize which startups are over-dependent on 'finding the right angel' versus those which can make a convincing business case to almost any angel investor.

Round 2, increasing competitive dynamics

Round two is set-up exactly as round 1, but with a new set of deals with two modifications. First, capital from the outcomes of round 1 is carried forward as reflected in the second tab in the spreadsheet. Second, deals are capped. A deal's cap is reached when a startup has been offered all the capital it wants to raise. The deal is then closed. In the spreadsheet, this means starting with the top 6 rows visible, which summarize how much is being asked, offered and remaining, and an additional row stating in no uncertain terms that the deal is open, closed, or over-subscribed. As soon as a deal is over-subscribed, whoever made the latest offer should withdraw it immediately. This completely changes the dynamics, in that deals can be made purely out of fear-of-missing-out (FOMO) and investors can rush in to try and lock in the higher aspiration deals without completing due diligence. Debrief occurs in the same way as round 1. Winners can quickly become losers and vice-versa.

Assumptions

This exercise includes assumptions that astute students may notice, but should not affect the ability of the simulation to generate discussion. The public spreadsheet allows each angel to see the other's deals. In reality, this is usually not known at the portfolio level, and only becomes known at the deal level when each angel makes an offer to the startup. The simulation also assumes that the returns from round 1 carry over to round 2, when in reality, returns are usually not realized until 4-8 years later. Lastly, the random number generator makes predicting success nearly impossible. This is actually also true in reality and reinforces the affordable loss principle in effectuation theory (Sarasvathy, 2001) and real options thinking for angel investors (Bliemel & Maine, 2016; Steffens & Douglas, 2007; Wiltbank, Read, Dew & Sarasvathy, 2009).

Student Reaction by Raymond Doan (Session 2, 2016)

This program was extremely interesting, especially for students who were not from a business background. As a business student, I could see this was replicating the thought process of not only angel investors, but incubators and venture capitalists. The game was very interesting as some businesses that seemed to be very good investments, due to their good business description and summaries, they actually turned out to be duds and generating negative return on investment. With an entrepreneurial mindset, it was clear that, as an investor, there were completely different perspectives in funding and showed to me that we needed to be mindful of how to present to potential investors, considering they would have many of the same business asking for money. I can see the potential in the angel funding game as it teaches the other side of the business deals. Personally I learnt a lot from the game, things like negotiating within the team and looking for key words and features that were either positively or negatively triggering.

Appendices

Appendix 1

The mathematics are demonstrated graphically in this Microsoft Excel spreadsheet, which may be shared with the students: http://bit.ly/MGMT2010_deal_distributions

Appendix 2

See http://bit.ly/MGMT2010_deals for a fully functional template in Google spreadsheet form

Appendix 3

See http://bit.ly/MGMT2010_deal_guide for example Microsoft PowerPoint slides to prepare each round

References

Bliemel, M. J. & Maine, E. M. A. (2016). Solectric: Market Entry Decisions under Uncertainty. Ivey Cases, https://www.iveycases.com/ProductView.aspx?id=68997

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243-263.

Steffens, P. R., & Douglas, E. J. (2007). Valuing technology investments: use real options thinking but forget real options valuation. *International Journal of Technoentrepreneurship*, 1(1), 58-77.

Wiltbank, R., Read, S., Dew, N., & Sarasvathy, S. D. (2009). Prediction and control under uncertainty: Outcomes in angel investing. *Journal of Business Venturing*, 24(2), 116-133.

Online Venture Challenge: Developing and Executing a Go-To-Market Strategy with a Real Product within a Semester

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Concept

"Build-Measure-Learn" is an iterative process that relies on the concept that neither investors nor instructors expect perfection and that action is required for anything to happen. In other words, try. Building a business facilitates a real ownership of the lessons learned. Kolb's (2014) Theory of Learning explains that individuals will take in and retain new information best if they follow the actions of Think-Plan-Do-Reflect in sequence. He further elaborated that it does not matter where you start, as long as you perform all four steps in order. In our experience as educators teaching entrepreneurship courses in Canada, the United States, and China, minimizing the Think and Plan time really makes a difference in students' ability to perform and learn. That is what the Online Venture Challenge is designed to achieve.

The Online Venture Challenge (OVC) is a combination of a business planning exercise, market experimentation exercise, and competition, where students, individually or in groups, develop an idea for a web-based business and then actually start and run the business within the time constraint of a single semester. The purpose of the exercise is to build, launch, operate and debrief a mission-driven[2], e-commerce website and, in the last two weeks of the project, write an investor-ready business plan (and presentation) based upon the experience of taking a product to market and generating sales. One unique feature of the OVC is that it uses a socially-driven model where the student(s) can partner with a social partner if it fits with their business model, a registered charity or non-profit organization. At the end of the exercise the social partner is given the profits from the business, even if student teams chose not to partner with the organization during the project.

A unique feature of the OVC platform is the gamification aspect where student groups can actually compete against one another. Students earn points by completing tasks that can be set by the instructor. These tasks range from goal setting, ideation, validation, and planning to setting up a social media campaign, engagement with various forms of media, and making sales. The points are tracked by the system and are viewable by both students and the instructor. The competitive nature of the project can provide a dynamic atmosphere to the class where students act competitively and want to win, at the same time they often seek advice from and/or collaborate with other teams in an effort to see how each achieved various tasks. While the competition can add value to the project as way to ensure students are engaging with tools and strategies covered during the course, it is important that there is some incentive that the students are competing to win. An example could be that the student winners do not have to take the final exam for the course.

Following the entrepreneurial process of opportunity recognition/ideation, business model development, and launch, while complementing the course material for a semester-long entrepreneurship class, the OVC exercise is divided into four stages over an approximate period of 10 weeks:
1. Ideation (approximately 2 weeks)
2. Business Model Development (2 weeks)
3. Operation (30 days)
4. Exercise End and Debrief (2 weeks)

Ideation

The Ideation stage consists of four milestones, group formation, individual idea generation, group feasibility discussion, and business idea submission. Group formation can involve either assigned groups or self-forming groups depending on the needs of the instructor. Single-individual projects have been used successfully and represent a viable option for students who have a compelling reason to choose to work alone. The next step is to have group members individually decide on 4-5 business ideas for the new venture. Each team member puts an idea forward for group discussion, the team then picks two for further analysis, and the best idea is chosen by the

team. Teams may also decide after getting started and getting market feedback that they want to change ('pivot') their original idea, which is within the intentions of the exercise. The Ideation stage ends with the team submitting a description of their business idea to the instructor.

Business Model Development

In the second stage the business team develops the business idea and prepares the operation to be launched on a special educational retail platform provided through Shopify. At this stage the teams have the approval of the instructor, and they can begin building their website using the retail platform. It is important to explain to the teams what the applicable laws and policies of the institution are as well as other provincial/state and Federal regulations that may apply. One rule is particularly important, there can be no solicitations for donation or similar messages as the intent of the exercise is to make sales and not collect donations. The teams are encouraged to reinvest their profits to finance further growth, and all net profits are donated to a charity that is registered in the appropriate jurisdiction. Having the social partner is an important part of the exercise as it allows (in many jurisdictions) for the teams to avoid having to register with taxation bodies to remit taxes on earned income.

The charity partner also provides a unique social entrepreneurship 'mission-driven' element to the exercise. The 'mission' is up to the discretion of the teams and encourages them to think about what is important to them and whether there is a charitable organization whose work they would like to support. There is an instrumental benefit to mission and partner selection because more popular themes and charity organizations can help generate promotional opportunities and attention for the student businesses and the university more generally. An important consideration to remind students is whether existing contacts exist because many of the larger (and therefore potentially attractive partners) are difficult to work with because they do not have time to understand the request from the team, the school, etc. At the end of the Development stage the teams should have an operating commercial website using the OVC platform hosted on Shopify.com.

Operation

The third stage of the exercise is where the teams have their business in operation and they promote, take and fulfil orders, manage sales, and make changes to their business and business plan based on the reactions of the market. The OVC platform provides information for both the business teams and the instructor so that continuous monitoring occurs.

The timing of when business operation takes place can be set for all teams to follow or they can be adjustable for the teams to decide. Having a set begin and end date simplifies the monitoring and administration for instructor because all team businesses are open at the same time, and it is easier to compare relative performance. However, if some teams have business ideas that are in some way calendar-dependent such as promotions for Halloween or Easter seasons, then it is an option at the instructor's discretion to start the 30-day operation window at different times. After 30 days the business ends with respect to the exercise and teams move to the last stage.

Exercise End and Debrief

In the last two weeks of the exercise the teams write an investor ready business plan and create a presentation based upon the experience from the pilot. Another unique advantage of the OVC exercise is that teams will have actual cost and revenue data to base their analysis and future projections on. Having this data allows the instructor to explain from a real foundation how to use actual operational results to develop pro-forma budgets and revenue projections that are subject to the effects of real-world constraints. At the end of the last stage the teams submit their business plan which includes information about the first 30 days. At the instructor's discretion the teams may also deliver presentations of their results in the context of, for example, addressing an investor

panel. Overall, the debrief allows the students to reflect on what went right and wrong, while linking the course lessons from the textbook with actual application in a business market. At this stage, the instructor can more precisely examine how the students built-measured-learned from both the textbook and experiential components from the class.

Student Reaction:

We offer both positive and negative feedback from students relating to the project. It should be noted that the feedback provided below was provided anonymously from students. Additionally, the comments while general in nature, may reflect the differences in how each instructor runs the OVC project. We have separated the comments into three categories, generally affirmative, generally critical, and suggestions for improvement.

Generally Affirmative:
- The OVC project is a great learning experience! It is stressful, however, to be running an ecommerce business in addition to the other course material is overwhelming!
- The project gives us a really good view as to what it takes to be an entrepreneur and how much planning really goes into the business before launch.
- Most applicable project have ever done in a class
- The OVC project allows us to apply what we have learned
- I love learning by doing and this is exactly what this project is
- Competition helps to motivate us to succeed
- Showed me how much work it is to start a real business
- I really appreciate you including a "start your own business" component to the Entrepreneurship class. When taking the class this fall, I had a hard time finding the "big picture" benefits and was somewhat frustrated by the project because it didn't work out well like I wanted it to. However, I have taken time since fall semester to reflect on what I've learned from the different pieces of the competition and the actual business itself, and with that reflection, I recently decided to include the experience on my resume. With this on my resume I have been asked about my experience twice in the past week at interviews, been able to discuss what I've learned, and I have been offered an internship and a job. I wanted to thank you for the time you put into designing and teaching the class. I now realize that if I would've trusted the process a bit more, I may have gained more insight, and I will carry that lesson with me. Thank you again for the valuable experience that is already paying off.

Generally Critical:
- The OVC is a cool idea, but we needed more time to develop our concept, especially since one of the two weeks given to prepare for our launch was spring break.
- Project takes up too much time since we all have classes, jobs, and want a social life, just too stressful
- The slow progression into the OVC project was nice, but the actual OVC project still caught us off guard.
- A real business requires more than three credit hours to operate

Suggestions for Improvement:
- Would like to have OVC as its own class
- Would be better if there were not other assignments at the same time as the project, too much to do
- Start the project earlier so we know what we are doing right and wrong, need more time
- Need to allow more time to formulate business
- Make sure every group has to sell something, not just validate their idea

Appendix

We provide samples of slides introducing the project as well as a sample grading rubric. Both are useful in setting up the project in terms of getting students a basic understanding of what they will be doing. The rubric is designed to get students to reflect on what they did during the 30 day competition and what they would have done differently. This becomes one of the more important factors in the learning process because students actually have to think about what they learned. Additionally, students end up with a useable version of a business plan and pitch deck that they can take with them, if they decide to move forward with the business or as part of their college portfolio.

Appendix A: Sample Introduction and Debrief Slides
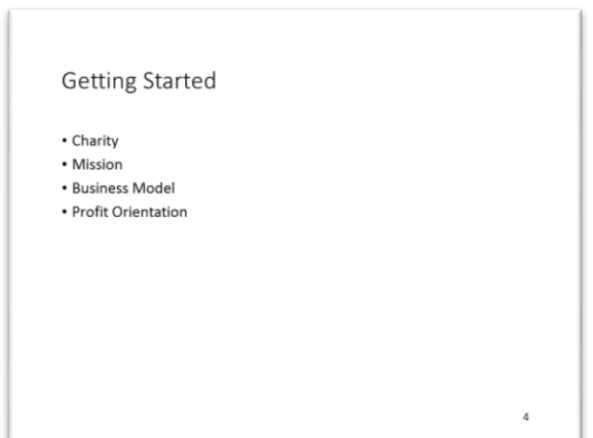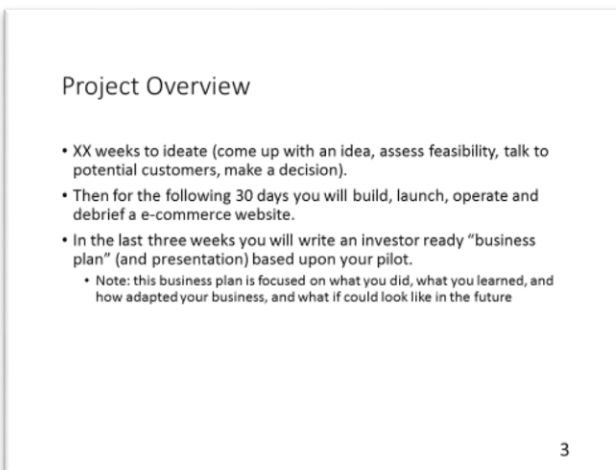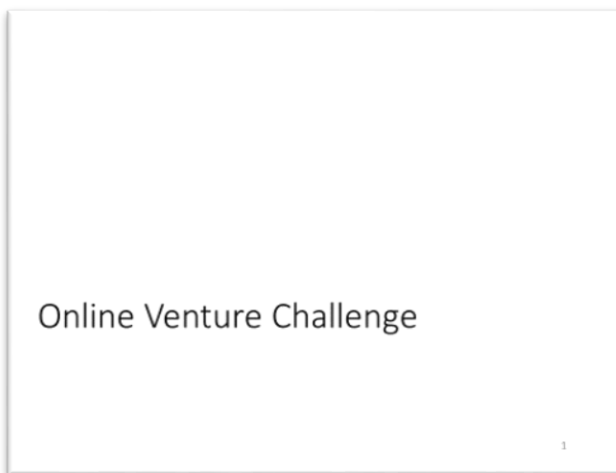
Charity

- Which charities are important to your team members? Will you work hard for them?
- Which needs are top of mind locally? Nationally? More popular themes can help you get PR and be found online.
- Can you contact a human who works there? Many of the huge charities are impossible to work with, because they do not have time to understand you, your team, your school, etc.

5

Mission

- The 'mission' you adopt is up to you.
  - Check out these two very different reasons to purchase livestock online. What is important to your team? Is there a charitable organization whose work you would like to support?
- Many past businesses here and at other universities have been socially oriented businesses.
  - This is a nature fit as you are donating all profits to a charity of your choice. Your business does not have to have a social mission, just an option

6

Business Model

- Your team will design the business model that you implement.
  - Many different business models might support the same mission.

7

Profit Orientation

- Although 100% of your _**profit**_ from this one month of business needs to be donated to a charity, the future business investment opportunity that you present at the end of this course can be either a for-profit, non-profit, or hybrid venture.
  - This choice of corporate structure is up to you and your team.

8

Examples: What to sell

- Mass customized workout and nutrition plans
- A different site sold podcasts made by veterans with PTSD
- Several sites have sold tickets to events
- Many sites have sold handicrafts, water bottles, bracelets, etc.
- Clothing is always popular (t-shirts are easy, but boring)
- Organic dog treats
- Developed an campus valet parking service
- Subscription boxes for students
- Text-book exchange

9

Cooperate

- By the end of the class one team hated each other, and was visibly uncooperative.
- The resulting sophomoric execution of their site incited their charity **to dump** them. Seriously, the charity contacted them and asked for them to remove all referring links or connections. How embarrassing!

10

53

Traffic does not always equal sales

- One team absolutely crushed the pageview goal
- Through a team member's knowledge of SEO and SEM (and liberal use of facebook and linkedin ad coupons), they had thousands of pageviews in just one month…and zero sales!
- Why? Their product was too expensive…
- Like you they had weeks to make changes to test their price point or their value proposition…

11

Opportunity Follows

- Might be able to take your idea and compete with other students at a campus, state, or national level. Some groups have actually one significant amount of money in these competitions (e.g., One group won over $10,000). How cool is that?

12

Rules to guide your e-Commerce Website

- Concept must be approved by your instructor (respectful of community & beyond).
- Team must follow applicable laws and policies (University, State, Federal, etc.)
- Specific to University – these rules are particularly important:
  - No On-Campus Food Sales
  - Use Approved UMD/LSEB Logo Only (see professor if necessary)
  - No Solicitation
- Make sales; do not collect 'donations.'
- Use the OnlineVentureChallenge and Shopify website creation template
- Total team budget is approximately $200 (e-commerce store, marketing, venture challenge subscription)
  - Note, startup costs can be reimbursed from revenue you generate as operating expense.

13

Business Plan & Future of your Venture Challenge™

- At the End of the project you will develop a business plan based on what you did, what went well, what didn't, and where you could go in the future.
  - Incorporate and carry on?
  - Give the site to your charity partner as an 'earned income strategy?'
  - Sell your:
    - Entire site
    - URL
    - ?
- Submit to Idea/Plan to Competition (More to Come)

14

Investor Ready Business Plan & Pitch (Pitch Deck)

- Now that you have piloted your idea, this you're chance to **_reflect_** and determine what went well, what did not go well, what would you have done differently.
- Additionally, it is your opportunity to explain how this business that you piloted could be expanded (especially with more money, $10k to be exact). This may include a complete overhaul or pivot of the business model, you just need to explain this.
- Make sure to address each area (see rubric) and provide detailed explanations. That being said, your plan should be clear, organized, and concise.
- NOTE - You can organize this plan anyway you wish, therefore present the information in a way that makes sense for you, but make it easy to navigate.
- **See OVC Sample Grading Rubric for specific details on what is to be included**

15

Online Venture Grading Challenge Rubric		Points Possible	Points Earned	Notes
Team				
Date				
Description/Content	**Explanation of Content**	**Points Possible**	**Points Earned**	**Notes**
OVC 30 Days				
DESIGN				
Look, Feel, Functionality, Content	• General layout & use of space: clarity + simplicity over complexity + density. Remember: white space helps people read • Ease of use - users can easily navigate the site and find information • Visual appeal (design does not detract from message/content). Aim for professional appearance (clean lines and simple color schemes are better than being overly "busy • Contact info – how can they get in touch? Information should exist on the site and be easy to find • E-biz element – how can they give you money? • It all works: absence of dead ends, dead links, & outdated pages – everything on the site works • Specific mission, vision, or goals clear • Clarity of grammar & use of language - spelling, punctuation etc. No spelling or usage errors • Absence of duplication & repetition • Write for the web, not for an academic paper, e.g., get rid of bla bla bla text . You might be interested in how users read on the web (hint: they don't, they scan). Usability guru Jacob Neilson has lots to say about this stuff – don't read it all, just skim for anything of interest/use			

	to you.			
GAME ENGINE SCORE (Customers)	**These are the items you get points for during the game.**			
Business and Sales related tasks/milestones **(Completed as many as possible)**	**Setup FB, Twitter, Business Landing Pages, Get featured in online article, Charity Endorsement, use Google AdWords, use Facebook Ads, blog about business, Add Google Analytics; 3 customers from Twitter, 3 from FB, 3 From Pinterest, Reach Sales milestones ($100, $500, $1000, $1500, $2000) or Reach Traffic Milestones (100, 250, 500, 750, 1000, 2000), 3 repeat customers, 3 customers from AdWords. Points are earned by your effort here, not the specific milestones completed.**			
GAME Effort	**Effort put into the project during the 30 day period**			
	This is determined by the professor and is taken from the work you do, the meetings you have with the professor, and the overall assessment of the level of effort you put in.			
PERFORMANCE **(Scores to Receive Full Credit)**		-	-	-
Traffic (250)	**Unique Page Views - From API (partial**			

	credit will be given)			
Usage (1000)	**Cumulative Traffic - From API (partial credit will be given)**			
Transactions (10)	**Report of Different Transactions (partial credit will be given)**			
Revenue ($500)	**Total Revenue - presented in short income statement** **(these are bonus points on top of your final Score)**			
Profit ($200)	**Total Revenue - Total Expenses - presented in short income statement** **(t hese are bonus points on top of your final Score)**			
Business Plan	**Now that you have piloted your idea, this you're chance to reflect and determine what went well, what did not go well, and what would you have done differently. Additionally, it is your opportunity to explain how this business that you piloted could be expanded (especially more money, $10k to be exact). This may include a complete overhaul or pivot of the business model, you just need to explain this. Make sure to address each area below and provide detailed explanations. That being said, your plan should be clear, organized, and concise. NOTE - You can organize this plan anyway you wish, therefore present the information in a way that makes sense for you, but make it easy to navigate and find each specific item.**			
PLAN		**-**	**-**	**-**
Plan Content aspects	**Grammar, spelling, overall appearance, organization (clear/concise), does not exceed 25 pages, including all appendices.**			
Executive Summary	**Wherein you ask for a $10,000 investment (and explain what one gets in exchange) (make sure to look up what an executive summary should contain)**			
Operations Plan	**Including explanation of operational plan for moving forward (this might include, but is not limited to, a milestone**			

	chart for the business going forward)			
P&L for OVC Pilot	**P&L for the venture challenge pilot (mention number of transactions)**			
Financial Proforma	**Financial ProForma for the new venture (1 year cash flow looking forward) (ensure to include explanation for your assumptions).**			
Estimated ROI	**An estimate of ROI in year 3 against the $10k investment and relevant explanation.**			
Legal Structure	**How would you plan to set the business up going forward (corporation, sole proprietorship, non-profit, etc.)?**			
Screenshot	**At least one screenshot of your website in an Appendix**			
Google Analytics	**Print-out of Google or Shopify Analytics showing pageviews and uniques**			
Innovation	**Is your business and/or site really new and different from competitors in a meaningful way? Explain.**			
IP Protection	**What trademarks, patents, copyrights, etc. do you have or would intend to file?**			
Business Model	**In testing your idea and through team assignments you created a business model around your idea. Now that you have tested that model is there anything you would need to change going forward? If so, what is it, why do you need to change it, and what specific changes would you make? Here you can use the Business Model Canvas discussed in class to tell us how you started and what areas changed based on your protyping the business.**			
Value Proposition	**What was your original value proposition? Did it change during the pilot? Did others see the same value that you did? Outline in detail what your clear value proposition is or should be if you decided to expand this idea.**			

Target Market	While you have engaged in this exercise before, now that you have completed the challenge and tested your idea is the target market the same? Provide the following (this should be relevant to the business as think about expanding on it). Clearly define at least one specific target market? Provide a detailed market analysis of the business. (Market type, size, potential market share). Describe your customer archetype. Including Total Available Market, Segmented Addressable Market, Reachable Market - assumptions/calculations should be included. Be specific in this discussion. Make sure to discuss what you did during the pilot (including Customer Conversion Rates (Cost of Paid Advertising / Number of Conversions)			
Marketing Plan	What was your marketing plan during the challenge? What would your plan stay the same if you were move forward with this business? If not, what would you change (e.g., change tactics/strategy, increase marketing budget, etc.) and make sure to be specific. Make sure to discuss what you did during the pilot (including Customer Conversion Rates (Cost of Paid Advertising / Number of Conversions)			
Market Receptiveness	Does your conversion rate (#of transactions/unique) exceed 10%? How many fb 'likes' did you get? Retweets? What could you have done better? What could you do with more time and money?			
Revenue Model	Explain what your revenue model was during the pilot? Would you change or expand this at all if you continued the business?			
Margins	What were your overall margins: Net Profit / Revenue x 100. Do your margins exceed 30% (Not a requirement, just a benchmark)? What were your margins? How could you increase your margins?			

Industry/Competitive Analysis	**You have already done industry/competitive analyses of your business. Provide a copy or updated version of that analysis relevant to the specific business you tested during the competition (i.e., What industry are you in? How big is it (in dollars)? What are the current trends? Complete industry (Five Force, PEST, SWOT analysis) /Competitive Analysis (Competitive Matrix and Analysis)). During the challenge did you learn anything new about these aspects (i.e., trends, competition, SWOT, etc.) if so what and what would do to address/incorporate this new information into your business model?**			
Validation	**Did you engage in any form of validation related to your idea (e.g., talk to or survey potential customers)? If so how many? Did this help clarify your idea and business model? If you did not engage in any validation, why? Do you think it would have helped?**			
Social Capital	**Did you partner with any other business or individuals, if so who, why, and how did it work out? If not, why not and do you think you should have? If you were to continue this business who do you think you would need to partner with?**			
Sustainable Advantage	**What scarce resource(s) do you control exclusively? What is your competitive advantage?**			
Ability to Execute/Management	**Did your team cooperate well? What did not go well? What could have been done better? What were some of the weaknesses of the team? Going forward how you address any issues you had in terms of team and management? Would you bring on different partners or reconfigure responsibilities? Really reflect on the team and management as this is one of the most important aspect for investors.**			

Charity	What charity did you choose to donate your profits to? What was the reasoning behind choosing this specific charity? Did you contact the charity? If you contacted them, what was their reaction or interest in the business? If you did not contact them, why? Did/Does your product or service offering suit your charity's mission?			
Goals	Did you set reasonable, achievable, and challenging goals prior to launch? Did you reach your goals? Did you have to change or alter your goals? How would you utilize goal setting in the future for this business? Are there any specific goals you would set for the business?			
Description of Effort	Provide a detailed description of the effort you put into the OVC prior to launch and during the 30 period. This should include explanations of your process and efforts related to coming up with the idea, how you validated the idea (including how many people you spoke with), did you use the business model canvas or not (if not that is okay, just need to know). Efforts during the game, including; where you ready on day one (if not why), what actual effort you put in to be successful (and reach your goals), if the business was not doing well did you pivot (if so explain, if not, why?), tell about process for getting new clients (all online, face-to-face, etc.), give me an idea of approximate hours spent each week on the business. Providing a timeline of when certain milestones set by the group got completed (e.g., developed idea, make website, got first customer, changed idea, etc.). Include any other information that will provide me with some explanation of the effort put into the project. You can even breakdown who was responsible for what specific tasks and the job they did. Again, this is to give me an idea of the actual effort you put into the game.			

Decision	After piloting this project and conducting further feasibility analyses would it make sense to move forward with this or a new version of this business? What would be the major implementation risks going forward with the business? Make sure to generally explain what went well and what did not.			
Investor Pitch	You will need to provide an investor pitch to the class (and possibly a panel of judges) on your business. This will include the development of a professional pitch deck.			
Provide Evidence of Profits Being Distributed to Charity/Non-profit	If you have profits then you must provide evidence that you distributed those profits to the charity/non-profit of your choice. **If you do not do this you will receive ZERO points for the "Plan" portion of the project.**	**Pass/ Fail**		
Partnership Agreement for the Business Moving Forward	Now that you have tested your business with the groups from class some of you may or may not want to continue developing the business idea. What happens if some of you do want to continue and some of you don't? To alleviate any issues going forward you will complete a partnership agreement (which I will provide) to determine if you as an individual would want to be involved in the business going forward in any capacity or if you do not want to. If you do not want to you would be giving up any rights as an owner going forward.	**Pass/ Fail**		
	Total Grade	**0**	**0.00**	

References:

Kolb, D. A. (2014). Experiential learning: Experience as the source of learning and development. FT press.