Teaching Effectuation:
A Workshop Report

Submitted on behalf of the 50 participants in the teaching effectuation workshop, held at the Vlerick Leuven Gent Management School in Gent, Belgium, December 7 and 8, 2009.

Introduction

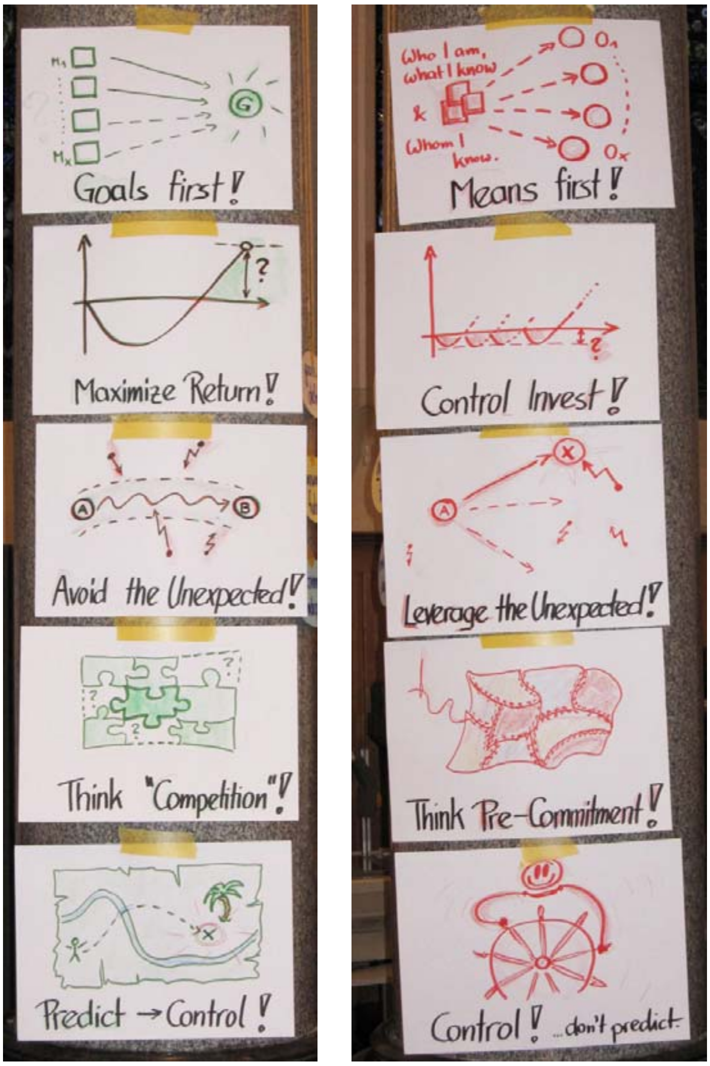
Within entrepreneurship research, the study of effectuation has gained recent interest. Introduced by Sarasvathy (2001), effectuation details a series of expert entrepreneur heuristics that invert aspects of the rational economic perspective on how new firms, products and markets come to be. While the principles of effectuation have many theoretical and empirical research issues yet to be pursued, there has more recently been significant interest in bringing the topic into the entrepreneurship classroom. An offer to join a workshop on the topic of teaching effectuation on December 7 and 8, in Gent, Belgium, posted on www.effectuation.org, generated positive responses from 36 participants who were joined by an additional 14 members of EFER (the European Forum for Entrepreneurship Research www.efer.eu). This manuscript provides a stylized report of the workshop, in rough chronological order. The intent is to share the discussion and findings from the workshop with instructors curious about bringing effectuation into the entrepreneurship classroom. The planned schedule for the workshop (and the outline for this report):

- **Monday morning**
  - Effectuation reminder
  - Entrepreneurship assumptions effectuation challenges
  - Implications for entrepreneurship education
  - Existing work/materials from group
  - Inventory of potential new materials
- **Monday afternoon**
  - Prototype a new effectuation session
  - Prototype cross-presentations
  - Finalize prototype of a new effectuation session
- **Effectual dinner**
- **Tuesday morning**
  - Welcome EFER
  - Effectuation overview
  - Debrief on effectual dinner as a session/part of program
  - Presentation briefs of new effectuation materials
- **Tuesday afternoon**
  - Organize an effectuation syllabus
  - Evaluations beyond the business plan
  - Connections with other courses
  - Measure of teaching effectuation?
  - Presentations of group work
- **Wrap-up and close of workshop**

Effectuation Reminder

As we had people with significant experience researching effectuation in the room together with people who had almost no exposure to the topic, we started with a presentation to provide information on the basic principles of effectuation. The presentation also served as one example approach for how to introduce the principles.

Drawings Used To Illustrate Causal Logic (left) and Effectual Logic (right)



The example presented started with a description of a displaced insurance worker coming to a consultant for career advice. In the vignette, the worker was presented with two different possible paths ahead for getting his career going. In the causal option, the worker could set a goal of finding a similar job to what he had held previously, only working for a different insurance company. In that option, the objective was clear, the return measurable, the tasks known and the difficulty was to compete with other applicants for the same position. In the effectual alternative, the worker was challenged to consider what means he had available that might open up different career alternatives to him. Investigating those would involve risking no more than he could afford to lose and leveraging both the unexpected and the partnerships the employee already had and would likely forge in order to create a new career.

The effectual principles can be applied at the unit of analysis of an individual, as shown with the insurance employee, at the unit of analysis of a new venture founding team, or even at the firm unit of analysis, taking stock of the means available to a firm in order to initiate the construction of new opportunities through partnerships and taking advantage of surprises along the way. Special thank you to Michael Faschingbauer, Principal at Klein and Faschingbauer Coaching OEG for providing this presentation.

Implications for Entrepreneurship Education

The initial presentation of effectuation made it clear that effectuation challenges a number of the assumptions that accompany much of entrepreneurship education today. Consequently, we took an inventory of the elements that are generally taught in entrepreneurship classrooms, and which contrast with the effectual view of the world. The greatest central difference is the distinction between much of what is taught about finding, discovering or envisioning opportunities as opposed to the effectual view that the entrepreneur and her self-selected stakeholder partners can also create opportunities.

What We Teach	Effectuation
Opportunities are found	Opportunities are made
Start with a target audience (segment in marketing terms)	Start with what you have, interact with many individuals, and if one looks promising, consider whether he or she is representative of a larger group (segment)
Match a technology/innovation vision to a segment need – the goal of the venture being to build that technology for that segment (technology as result)	A variety of technology/innovations are part of the many possible means an entrepreneur can start with when creating an opportunity (technology as possible input)
Market research (select and evaluate)	Interact with the environment and iterate
Select a “solution”	Focus on a “problem” (use a possible “solution” space to initiate interaction)
Plan	Interact (open, explore)
What should be?	What could be?
Avoid the unexpected	Leave room for the unexpected
Business plan as a starting point	Business case and plan emerges from the process
Existing environment is given (and so the challenge is to position within it)	Create the environment to assure that you have a desirable position within it
Select the most valuable opportunity and discard the rest	Consider how to improve, re-combine and rethink all ideas, building together with partners
Business plan as an evaluation	Process journal as evaluation
Sequential process of identify and then later act	Concurrent processes of act, interact, create and identify
Accumulate investment and resources	Get a first sale (contact real customers)
Perform gap analysis	Bridge the gap
Perform NPV analysis	Act, fail and learn quickly
Avoid competition (think Porter)	Work together with competitors, think stakeholder
Protect	Share

Existing Effectuation Teaching Materials

Given the unique teaching objectives in delivering effectuation, we took stock of the inventory of existing materials designed, adapted or exapted to meet these objectives, and collected a soft copy of these materials to share with the participant group. A range of materials already existed as described below. There are also new materials being created all the time, and the most current materials will be available in the Teaching area of www.effectuation.org. (You will need to register as an instructor in order to obtain a password for the area and are encouraged to use the materials there, upload new materials and share your experiences teaching effectuation.)

Session Name	Description
3M Innovation	Materials to show the effectual organizational design at 3M
Business Life	A series of mini-caselettes on different effectual principles
Coat of Arms	A process for taking an inventory of your personal means
Collabrys Case	A case of an internet company working to create a market
Creativity Exercise	What to do when your students say they have no good ideas
International Business	Journal articles and slides for a session on effectual international business
Guidewire	A case on an effectual organization that reorganizes monthly
Ice Hotel	A case series on the effectual creation of the popular Ice Hotel
Introduction	Lecture slides to introduce the principles
Jim Poss	The effectual creation of Big Belly Solar corporation
Lumni	An effectual social ventures case
Make Your First Sale	An exercise to encourage stakeholder interaction
New Barn	A case of effectuation at work creating new venture Zopa
NPV Frustration	A very difficult NPV calculation with an easy affordable loss
PupCups	A case of causality failing in the pet products industry
RightNow & Zaplet	A contrast of an effectual venture and a causal venture
Readings	A series of reading assignments on effectuation
Textbook	Draft of a textbook on effectuation, forthcoming 2010
U-Haul	A case on the effectual creation of the U-Haul corporation
What To Do Next	Online simulation using effectual principles

Our observations from the inventory were that there is no dominant default teaching approach for effectuation. Many of the instructors present who were already teaching effectuation delivered it as a session within an entrepreneurship course, not as a whole course, and were concerned that it was not as well integrated as it should be. In order to have a greater impact, some thought the whole course needed to be effectual.

New Material Prototypes

Based on the inventory of existing teaching materials, we identified six areas we felt needed attention:

1. Effectual Business Plan
2. Stakeholder Negotiation
3. Affordable Loss Experiment
4. The Effectuation/Causation Boundary
5. Memorable Way of Delivering the Principles
6. Delivering Effectuation Online.

Small groups worked on these topics the afternoon of the first day, and presented their results at the start of the second day. Their presentations are summarized below.

1. Effectual Business Plan

In lieu of organizing an entrepreneurship course around a business plan, this group presented "The effectual map: An alternative to business plan courses." The intended goal of the course design is to offer an alternative to business planning, starting from means, building on effectual principles and ending with a business. This group provided an outline for a quarter course.

- Course set-up
  - Option 1: Own student project (individual or in group)
  - Option 2: Give students description of means, e.g. technology, cash, …
  - Option 3: Take existing product and think about how to introduce it in home market
  - Option 4: Case-based
- Step 1: Mapping your means (week 1)
  - Whom you know
  - Who you are
  - What you know
  - What are you willing to lose
  - First class: Ask students to make assessment of the means they have available on one dimension against the opportunities they have in mind on another and use the intersections to find starting points for pursuing the creation of an opportunity.
- Step 2: Idea generation (week 2)
  - Several techniques (e.g. brainstorming, problem inventory analysis, checklist analysis, personal problems, etc.)
  - Second class: Provide market feedback on several opportunities and have them re-do the exercise.
- Step 3: Mapping the opportunity space (week 3)
  - Who do you know that could contribute to Opportunity 1, 2, etc.?
  - Do your hobbies contribute to Opportunity 1, 2, etc.?
  - Do your competencies contribute to Opportunity 1, 2, etc.?
  - Can you develop this opportunity within your maximum affordable loss?
- Step 4: Identify missing information (week 4)
  - For each of the opportunities
  - How can you get this information?
- Step 5: Interact (week 5 & 6)
  - Goal: Information and commitment

- Leads to:
    - Additional means (from commitment)
    - Elimination of some opportunities (from information)
    - Additional opportunities (from commitment and from information)
    - Expanding and narrowing down the space.
- Step 6: Repeat steps 3 to 5 (week 7 and 8)
  - Until there is a "green light" for one opportunity, i.e.:
    - All means are present
    - Commitment from stakeholders
    - What if there are multiple "green lights"?
      - Select? If yes, based on what?
        - Downside risk?
        - Expected profitability?
        - Continuous interaction adding on more stakeholders?
- Step 7: Develop plan for chosen opportunity
  - Follow-up course?

In order to perform student evaluation, the group presented a series of alternatives:

- Process-oriented
- How many interactions did they have?
- Do they translate the information adequately into the means/opportunity matrix?
- Self-reflection
- Outcome-oriented
- How many commitments did they get?
- Were they able to reach a "green light"?
- Did they realize a first sale?

2. Stakeholder Negotiation

The second group looked at how to bring stakeholder negotiation into the classroom. The goal they chose was to create a one-day workshop for a reasonably small group (12–25 people) of nascent and practicing entrepreneurs, MBA students or other graduate students. The idea was to first contrast effectual and causal negotiations using a metaphor of playing Beethoven (can we plan from start to finish; negotiate conditions) vs. playing a Jazz session (has to be co-created; negotiate the outcome), or looking at the quilt versus the jigsaw puzzle.

Causal Negotiation	Effectual Negotiation
Convince and sell	Persuade and learn
Negotiate the big deal	Small steps
Focus on one target	Look for other options
Negotiate the conditions	Negotiate the outcomes

The teaching objectives were to expose participants to the following knowledge, skills and attitudes, while at the same time encouraging participants to experience an effectual negotiation.

Knowledge	**Skills**	**Attitude**
Precommitments reduce uncertainty	Learn what the other party's boundaries are	Win-win
Value can be co-created	Be able to adjust own position based on shared information	Open to changes
Small negotiation cycles and experiment	Frequent communication and adjustment of own tactics	Relational attitude vs. transaction
Offer controlled exits (affordable loss)	Learn how to design risk and uncertainty reducing commitments	Failure is likely, and must be recoverable
Information (means, motive, ...) sharing is critical for success	Creativity	Ideas are cheap – action is what makes them opportunities
Surprises are good	Self-efficacy	Open to new inputs
Negotiating is a joint learning process (not convincing)	Docility	Willingness to being influenced

The team developed a situational game:

- Setting: Man and woman in a bar, both receive individual briefing of the setting
    - Man wants the woman to go out with him for dinner
    - Woman wants to negotiate other options
- Purpose
    - Both stay in game
    - Not committing too much
    - Getting information exchanged
- Debriefing
    - Were you able to adjust your own position based on information shared?
    - Were other options considered?
    - Did you learn what were the other party's boundaries and motives? (Tell me how to flirt with you.)
    - Discuss different results (risk, uncertainty reduction, flexibility).

In the preparation for the negotiation, because participants cannot prepare definite goals, instructors might suggest other elements to prepare:

- Think about absolute boundaries: What cannot be negotiated?
- What kind of information can you afford to risk?
- What do you have to offer (means, intentions/motives)?

The group suggested variants to the exercise for instructors interested in alternatives beyond dating:

- Two stakeholders get different briefings for a situation under uncertainty (e.g. Sarasvathy's Grue interaction)
- Causal results (negotiating the big package) and compare pros and cons

In running the exercise, the group described what to do if trust issues come up:

- Prisoners dilema game over several rounds
- Show that cooperating partners create the biggest pie
- Introduce tit-for-tat strategy (see Axelrod)

Also, the group thought it might be instructive to have a segment on how to divide the pie, perhaps using a case (e.g. Red Bull) in a role play where participants need to determine what needs to be divided upfront (equity, decision rights, return, incentive structures), and then how to do so effectually.

3. Affordable Loss Experiment

The group working on affordable loss created a model for making rewards, risk and loss as personal as possible. The goal was to help participants think about risk from the perspective of risking resources against likely expected return while also considering the downside associated with a course of action. The session was built around different (fictitious) personas that might illustrate different people at different stages in life. Sketched out below, the design intent is to develop a story, even with a photograph of a representative person, around each of these personas so as to bring them to life and challenge participants to think about how each might differentially view risk.

	Case 1	**Case 2**	**Case 3**
Financial			
Present Value	€10 million	€5 million	€2.5 million
Investment	€2 million	€0.5 million	€.75 million
ROI	Medium	high	small
Non-financial			
Family status	Married man, 3 kids, wife not working	Single woman, student, no kids	Married man, kids out of house
Age	45	25	60
Current job	Middle management, end-of-career, €150,000/year	Student, student job €10,000/year	Early retirement, last job €150,000/year
Personal savings account /investment	€0.5 million	€5,000	€1 million
Motivation for start-up	End-of-career in company	Entrepreneurial, opportunity-driven	Bored at home

Then the teaching plan for the session would be to not only assess the persona cases, but as the session develops, project participants' own personal situations and preferences onto the decisions.

Time	Teaching	Objectives
0	3 cases: “In whose shoes would you like to be?”	Expected return calculation fails
15 minutes	Discuss decision criteria	Moving discussion over risk/variance to loss
35 minutes	Results of discussion – collect items for loss list	Different loss dimensions
50 minutes	Discuss using cases + apply to your personal situation	What is “personal affordable loss”?
65 minutes	Discuss how else you could get means for project	How to manage affordable loss?

4. The Effectuation/Causation Boundary

One of the questions that often come up in class, following the presentation of the effectual principles, is when to use effectuation and when to use causation. In order to address this issue proactively, this group developed an idea for “Have Your Cake and Eat It,” a diagnostic tool to help ambitious entrepreneurs assess the need for change. The intent was to be able to use the tool with an established, successful entrepreneur wanting to go from being a big small business to being a small big business, regardless of whether the venture had been grown effectually or causally. The objective of the tool is twofold. First, it is to assess the strategies currently employed by the entrepreneur. Second, is to assess the predictability of the operating environment moving forward. The real question is to determine whether, in order to continue growing, the entrepreneur needs to change or adapt their approach. The diagnostic tool would be composed of a battery of questions designed to assess a series of internal heuristic approaches, as well as a series of external elements regarding the operating environment.

Internal Efficiency	External Environment
How do they behave now? • Planning • Control • Goals • Inputs vs. Outputs • Think vs. Act / Flexibility	Is the environment predictable or not (measured by the entrepreneur)? • Economy • Government • Markets • Competitors
Efficiency of operations • Asset utilization • Stock turnover • ROI • Customer retention	Degree of control by the firm in the market space • Market share • Number of customers • Patents

Based on the results of the diagnostic tool, the instructor would be able to position the entrepreneur with respect to the following 2x2, enabling a discussion of the entrepreneur's current approach and how to drive toward a desired approach.

		Certainty of the external environment	
		High	**Low**
Internal efficiency achieved by the organization	**Low**	?	Effectual
	High	Causal	?

5. Memorable Way of Delivering the Principles

With the spirit of becoming more effective teachers of effectuation, one group set out to find a session that would convey the principles of effectuation in a memorable way. The general objective was to design a session as a memorable experience that touched students on an emotional level, for example by putting them outside of their comfort zone. Using this idea as their guideline, they proposed a session by the title "Sink-Or-Swim." Building on the idiom that when thrown in the water, you will either swim to safety or sink to the bottom, we foster an entrepreneurial experience by providing participants with a business idea and pushing them to make a first sale within a short period of time. The experience could subsequently be used to learn and reflect about how the principles of effectuation are of use in a situation with great uncertainty. The group suggested the following scenario to implement the session:

1. ***Misleading introduction:*** The instructor asks participants to name 30 ways to identify a viable business idea and writes them on a blackboard. Typically, a series of causal-type of methods such as industry analysis, STP, etc., will emerge from this discussion. Subsequently, the teacher asks how much time and money would be necessary to execute these steps and leads the discussion to conclude that at least several months and thousands of euros would be necessary.
2. ***Comfort-breaking assignment:*** The instructor should then break completely with the rhetoric provided in this introduction and give the students an assignment to assess the viability of a business idea within only 3 to 6 hours. The objective is to do this assessment by making actual sales. The ideas should be presented not as fixed ideas, but rather as opportunity spaces from which the students can start. Several opportunity spaces can be thought of that are immediately implementable:
    a. A guided tour for tourists in the neighborhood.
    b. Redesigning the concept of the fortune cookie
    c. Make products out of waste
    d. A failing business
    e. Etc.
3. ***Money and resources:*** A second comfort break relates to the amount of money given for the start-up business. The students are asked to put up a small amount of money themselves (the equivalent of €10), which they can use as a resource. The idea here is to make them accountable and motivated to act as a group, but also to work with a small budget.

4. ***Deliverables***: Before the students start, they are asked to come back after the assignment with the following deliverables:
    a. What did you do to make your sale, who did you sell to and how?
    b. What else did you look at and decide not to do in the end?
    c. What did you do to determine whether this was a good idea?
    d. What would you do if you had more time/money?
5. ***Coming home:*** After the assignment, the students are guided by the teacher to share their experiences, using the effectuation principles as a guideline.
6. ***Learning moment:*** Class discussion about how the principles of effectuation would change the way they approached the assignment.

6. Delivering Effectuation Online

The team working on delivering effectuation online envisioned an entire website, named e2e.edu. The big picture was to bring effectuation online and enable real life learning by doing it and experiencing it. The intent was to be able to use the site for distance learning or blended learning and ultimately create businesses to invest in. The e2e.edu group articulated a series of stakeholders for the site:

- *Students* – learning, experience effectuation, start-up
- *Alumni* – continue effectuation journey
- *Profs* – research data, motivated students
- *VCs* – investment opportunities
- *Business Angels* – investment opportunities
- *Experts* – fresh insights, knowledge sharing, reputation
- *Partners* – brand recognition

The site would be designed to enable an effectual learning pathway through five modules:

- Module 1: Tell your story (Who am I?)
    - Task 1
        - Share your story to engage others
        - Post it on e2e, Linkedin, Facebook…
    - Task 2
        - Increase your network
        - Recount your contacts
        - Invite them to e2e
    - Task 3
        - Look for classmates (advisers) to form a learning team
        - Optional: Find team mates on e2e
- Module 2: Brainstorm (What can I do?)
    - I have an idea
        - Post it on the e2e forum
        - Actively solicit feedback (give & receive)
        - Evaluate the feedback
        - Improve your idea

- I don’t have an idea
    - Use the business idea generator
    - Dropped ideas
    - Think of what has upset you recently. Is there a solution?
    - Check the hot topics on the forum and the news
    - Reflect on what is possible with your new connections
    - Participate in Angel’s dust (online brainstorm, lead by Business Angels)
- Module 3: Activation (affordable loss)
- Module 4: Pre-commitment (more means and or new goals)
- Module 5: Starting-up (first actual customer)

In order to deliver on those modules, the site would have the following elements:

- Discussion forums
- Interactive tests – comparing of results
- FAQs and glossary
- Business game
- Business opportunities
- Job advertisements
- Courses in entrepreneurship
- Link between students and coaches
- Team pages
- Idea generator
- 360 means feedback
- Business plan generator

And while the group determined that there may be confidentiality issues where different participants have differing degrees of openness as well as critical mass issues, getting cohorts of universities and their networks to form a strong community, that e2e.edu could ultimately provide a platform to enable participants to assess their own opportunity space:

	Feasibility	**Value**
Market	**Is it doable?**	**Is it worth doing?**
Personal	**Can I do it?**	**Do I want to do it?**

Summary from Group Work

The greatest single overall observation about the output shared by the group was the action orientation. Surprisingly, only one group even mentioned a case, and all the groups created some form of exercise. The consensus was that an action-oriented approach is consistent with the ideas around effectuation. To contrast effectuation with the causal planning approach, participants need to engage with real customers and partners, and that the idea of iteration and creation needs to be built into the process of teaching effectuation.

Effectual Dinner

Sarasvathy has used a cooking example to contrast the differences between effectual logic and causal logic. In her example, she describes two chefs. The first is a causal chef. The causal chef carefully selects recipes from a cookbook, shops for the ingredients necessary to prepare the dishes in the cookbook and follows the instructions in the cookbook to the letter. The effectual chef, in contrast, starts by looking into the refrigerator and determining what she/he has available. From that set of available items, the effectual chef creates dishes by creatively combining the resources at hand. We sought to replicate the effectual approach for our group dinner on the first evening. So during the afternoon, while the teams were working on the group work described above, each team was assigned to a section of the dinner meal (appetizer, main course, dessert), and challenged to create it, using the means at hand in the Vlerick kitchen. The process and organization for the effectual dinner was as follows:

- Each team will be assigned a chef (partnership)
- Starting at 15:00, one team at a time (space constraints) will:
  - Go down to the kitchen
  - Meet their assigned chef
  - Survey the "means available" and claim what they want
  - Make a plan for what to make, what to do and when to return
- Level of goal specificity:
  - Aperitif starting at around 18:00
  - Something to eat at around 19:00
- Use all available means to create an extraordinary meal
- Provide as much labor as kitchen logistics permit
- Output
  - Teams are responsible for both presenting and serving their creations
  - Default is to serve creations "family style"
- The kitchen has been made aware of any participants' dietary requirements. If teams opt for a creation that does not meet all participants' dietary requirements, they must:
  - Disclose ingredients upon presentation
  - Provide a small portion of an alternative creation
- Rules for participants (must be consistent with health and safety requirements), before entering the kitchen
  - Hat
  - Coat/apron
  - Hands sanitized

- Beware the hazards of an industrial kitchen
  - Hot surfaces
  - Sharp knives
  - Heavy and powerful equipment
- Follow the lead and word of your assigned chef
- Remember, we are guests

During the interactions in the kitchen, participants were filmed. The following morning in plenary, we reviewed sections of the video, identifying use of means, stakeholder interaction and commitment, handling surprise and creating novelty. There was strong evidence of all the principles at work, and the experience of seeing yourself enacting them was compelling. The meal itself was uncertain with novel combinations such as salmon with figs which turned out to be unexpectedly delicious.

New Barn

To kick off the second day, we had a live presentation of the New Barn Studios case. All the materials for the case (parts A & B, teaching note and epilog slides) will be available in the password protected teaching materials section of www.effectuation.org. Several interesting elements came out of the case during the discussion. The first is that it provides an excellent basis for an inventory of means. The richness of the case offers substantial insight into the elements that each of the three founders brings to the table, and enables participants to think deeply about the possible new combinations the three could create with what they have, who they know and what they know. The second was the fine distinction between causation and effectuation. The case presents the founders as desperately trying to analyze an uncertain future. And while the founders are all clearly successful and intelligent consultants with novel approaches to trying to predict the future, the case also does a good job of illustrating the futility of doing that, even when you have the best people you could imagine for the job. Finally, the case brings the participants to a venture, which was causally developed, but is effectual at heart. The resulting firm is Zopa, a person-to-person lending firm, built completely around the means of the community and enabling partnerships over the internet. Special thank you to John Mullins, Associate Professor of Management Practice Chair, Entrepreneurship at London Business School for providing this case presentation.

Integration

In the afternoon of the second day, we began to put together the ideas from the workshop and consider both topics that we had not yet touched on, as well as topics beyond the sessions we had been working on during the first day and a half. During the discussion, the following topics came up either explicitly or implicitly.

1. How can we design a course that integrates and balances causal and effectual thinking?
2. How should we write cases designed to explore effectual principles (taking into account the retrospective bias of effectual entrepreneurs to describe events causally after the fact)?
3. How should we evaluate students learning effectuation?
4. What are some of the difficult questions you get when teaching effectuation?
5. How should deliver effectuation to different audiences?

6. How should we evaluate instructors' delivery of effectuation?

1. How can we design a course that integrates and balances causal and effectual thinking?

The first question that came up in this discussion is whether we can teach effectuation and causation as complementarily or as substitutes. The consensus within the group was that the two should be taught as complementary and that a good course design would incorporate both, not just changing an existing class, but also changing the whole course to enable a shift in mindset between effectual thinking and causal thinking. During the discussion, a revised syllabus for a semester long course was described, which includes treatment of both causation and effectuation.

Week	Topic
1 & 2	Causation versus effectuation: Shattering assumptions
3	Who I am: Coat of Arms style exercise + sharing
4	What I know: Motivation + opportunities (New Barn style)
5 & 6	Who I know: Power of networks and team formation Deliverable is team and opportunity space
7	Affordable loss – Make your first sale in 10 days
8	Strategic partnerships – Negotiation for win win
9 & 10	Business model innovation
11	Leveraging contingencies – Creating a learning organization
12	Integration – Shaping a vision and communicating it
13	Shift to causation
14	Special topics (social ventures, technology, family business)
15 & 16	Present business venture and share thoughts about process

2. How should we write cases designed to explore effectual principles (taking into account the retrospective bias of effectual entrepreneurs to describe events causally after the fact)?

As effectuation is, by definition, action-oriented, a case that deals with it should also be action-oriented. In line with that, the discussion around what kinds of cases would be appropriate in an effectual environment would probably have the following characteristics:

- ***Shorter:*** Sufficiently short enough so that the cases would not need to be assigned in advance; instead, participants could read them in class and respond in the moment, as they would be more likely to do when effectually developing a new venture.
- ***More parts:*** In order to enable participants to work through the messy and uncertain process of new venture creation, where new and conflicting information arrives all the time, using a multi-stage and/or sequential decision making process.
- ***More ambiguity:*** Unlike the traditional case design, which can often end with a simple decision between two possible options, cases oriented around effectuation need to offer

the uncertainty and ambiguity faced by an entrepreneur in the process of creating a market.

- ***More alternative futures:*** Instead of a simple decision, enable participants the latitude to do anything they can imagine and that they can control with their means. And perhaps most important, encourage participants to consider how to create opportunities interactively with the people "who they know," effectively co-opting resources that they specifically do not control.
- ***More focus on other case protagonists:*** In addition to the necessary focus on the main protagonist, a good case for teaching effectuation should also provide sufficient information on other protagonists who are directly or indirectly involved in the identification and/or pursuit of an opportunity. This information should allow participants to learn more about the value of external knowledge, expertise, skills and values as well as relationships, networking, inclusive strategies, etc.)

This has many implications for the way we write cases. Where the objective in creating a case is traditionally around finding an interesting decision and providing all the information around it, effectuation inverts that need, suggesting that the information should be necessarily incomplete, and the possible decisions ahead likely infinite.

3. How should we evaluate students learning effectuation?

In thinking about a course where the output is not the business plan, the discussion started by acknowledging that moving beyond the fixed business plan is a natural function of instructors keeping up with the world. In high venture activity areas, we are seeing a focus away from the business plan and toward the iterative model of presenting to potential investors (rocket pitch, then more detail (2 minutes) then a full presentation given interest). And while this may be a cultural or geographical difference – where more conservative environments might expect a full business plan whereas less formal environments (or more fully developed VC markets) wouldn't, the consensus within the group was that in general even the more conservative environments were moving away from the full business plan and toward a more dynamic funding proposal process. As such, the discussion offered a variety of evaluation approaches, ranging from a process journal that maps the participant journey through the course, to a series of metrics on how far participants had been able to get in creating a new opportunity and getting revenue.

4. What are some of the difficult questions you get when teaching effectuation?

There are a number of thorny questions people have trouble with in the classroom, and it was clear that even people who are knowledgeable (the participants of the teaching effectuation workshop) still blur the distinction between effectuation and causation. We do not seek to provide the "right" answers here, but only to present the questions so that the thoughtful instructor can reflect on these and be prepared for his or her own take on them.

- Is effectuation just trial and error?
- How can you do something without a goal? (Does effectuation mean that entrepreneurs are "wanderers" with no goals?)
- This is all obvious and intuitive – I do it already?
- So what do I tell my CFO?

- How much goal ambiguity can you sustain?
- Isn't this just chaos?
- Does this mean that one is right and the other is wrong?
- What can causal people learn from effectual people and what can effectual people learn from causal people?
- Is contingency just a kind word for opportunism?
- How do you choose between the many opportunities that are presented by your means?
- How does this relate to other approaches and to other fields (OB, strategy, …)
- How do you define the boundaries of effectuation?
- Doesn't this mean you will miss the "home runs"?
- What are related approaches (20/20, Blue Ocean, PlanB, SimpleRules…contrast w/ Porter and a standard strategy grid)?

5. How should we deliver effectuation to different audiences?

The workshop focused mainly on students in degree programs, studying entrepreneurship. However, it was acknowledged that effectuation would be of value in a variety of different contexts to different audiences. In thinking about how the approach might differ for different audiences, the group began by appreciating that with entrepreneurs as an audience, teaching effectuation has a different dimension because many of the entrepreneurs already effectuate naturally, so the contrast with causation may seem artificial or abstract. As opposed to people in small businesses, family businesses, large corporate entities and social ventures, for whom the environment is different and for whom the application of effectuation might be different. We offer a few notes about some of the differences for each of these different types of audiences:

- ***Small businesses, family businesses.*** These entities are less likely to be creating markets from scratch, and are more likely to be creatively creating themselves a position within existing environments. As such, the ideas of means and partnership provide more insight into *how* to pursue opportunities as opposed to *which* opportunities to create. And the idea of affordable loss may be even more significant than it is to the lone entrepreneur because small or family businesses may have a number of people relying on the income from the venture.
- ***Large corporate entities.*** Presenting effectuation to executives in a large corporate entity is something of an adventure in the jungle for them. It is exotic and far away from where they do their normal work. However, it is something that is appreciated in the context of where growth and new opportunity comes from. Positioning it in that light, and as something that a fraction of the organization might do to create renewal, can be effective with corporate managers.
- ***Social ventures.*** These individuals are the closest to the entrepreneur. With the exception of people creating a simple charity, social entrepreneurs are working to create markets from scratch. The main difference is that they are working to do so for a different set of potential stakeholders than the "for profit" entrepreneurs. In that

context, there was consensus within the group that presenting effectuation to social entrepreneurs would be the same as to any entrepreneur, though only with different examples.

Clearly, there is more work to be done here, and some of the materials presented in the workshop were targeted to one of these specific groups, but this should provide an overview of the differences.

6. How should we evaluate instructors' delivery of effectuation?

There was an appreciation that participants taught in a causal way might feel more comfortable and effective than those taught in an effectual way might. This may create the perception that the effectual approach may deliver less learning (where causation and a large business plan may in contrast deliver a false sense of safety). And because the group felt that effectuation may deliver more preparation for what actually happens in the process of new venture creation, there was a discussion of how to appropriately evaluate the impact of teaching effectuation (instead of asking participants at the end of the course how confident they are, ask participants who start ventures whether they were well prepared for the kinds of issues they faced in the creation process). This is an interesting research question to measure self-efficacy before the course and after the course, as well as before starting a venture and then once they are into it. Perhaps it is also interesting to look at the ventures that are created effectually versus causally. Effectuation teaches the hardest, most uncomfortable aspects of new venture creation – the stakeholder commitment, as opposed to passively reading examples or cases. It would also be interesting to look at how investors rate plans that are more effectual (stakeholder commitments, goal ambiguity) versus more causal (market research, specific target).

Conclusion

Looking back at the two days, there was a strong qualitative sense of mission and purpose. Entrepreneurship instructors view themselves in the business of enabling personal economic and work freedom as well as delivering an engine of economic growth at the macro level. And against that mission, entrepreneurship instructors are uniquely devoted to finding approaches that will deliver the most impact for their participants and deliver them in a way that will make them most accessible and applicable. There was good progress on these objectives during the two days, and the experience provided an optimistic view for the future of entrepreneurship education. The cohort of participants within the workgroup, sharing that common vision, interacted remarkably effectively, setting the foundation for future productive collaborations. We look forward to it.

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Reference

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