Cold Opportunity (A) - Instructional Note

Materials

- Cold Opportunity (A) case to distribute to the class
- Cold Opportunity teaching presentation
- 2 Writing boards to record ideas from the class in the first part of the exercise and a second board to record the results from group work.
- Projector with sound to display both the teaching presentation and the final presentation.
- The ICE Hotel Final Presentation

Introduction

In this single session class (90 - 120 minutes) which can be standalone or part of a course, we will introduce the principles of Effectual Entrepreneurship and then Introduce the Prediction Control space of entrepreneurial action and the CAVE matrix. The vehicle for this class is a case about the creation of the Ice Hotel.

Uncertainty

Start the class by informing the students that they will be examining entrepreneurship through the experience of an Entrepreneur in the far north. The first topic is uncertainty. Use the image of the three urns to explain the difference between:

Risk - Known Distribution / Unknown Draw

Uncertainty - Unknown Distribution / Unknown Draw

Knightian Uncertainty - Unknowable

Tell the students that we will use a case study to explore how uncertainty impacts entrepreneurship.

The Cold Opportunity

Pass out the Cold Opportunity case which is available by registering here (link).

Start by having a discussion about how cold it was north of the Arctic circle. Has anyone in the class visited? How does the cold affect life?

Nils

Have the class explore Nils Berquist's background concluding with his decision to stage an ice sculpture festival.

On the board list out the different stakeholders in the action:

1) Nils
2) The residents
3) The artists
4) The tourists
5) The press

The Rain

Describe the act of Nils waking up the next morning for the big day ahead with the train arriving at 11a - it's 5a now.

1) Have a student describe what happened - the rain.
2) Ask the students to describe what the implications of the rain were
3) Ask the students to go through the list of stakeholders and imagine how each of them would feel when they encountered the rain

Taking Action (Starting at 30:00)

The class will now explore the possible actions they can take to respond to the event. Frame the discussion by having each member of the class imagine that they are Nils. Then start asking for ideas. "What are you doing this morning, Nils?" Challenge the idea if it doesn't make sense in light of the temperature and rain, people and financial resources. For each idea, have them describe an action they would take for that idea. At the same time write the idea/action on the board in one of four unlabelled quadrants of the board (see example) which will become a demonstration of the CAVE matrix (see instructions for classifying below). During the idea submission, continue to reinforce the urgency of the situation.

Quadrant 1: I would cancel the event	Quadrant 2: I would put up a big tent and run refrigeration equipment

I would give people their money back	I would find a large cold warehouse
Quadrant 3: I would have an ice sculpture smashing contest	Quadrant 4: I would gather the townspeople to plan what to do next

If possible try not to reveal that you are putting the answers in four categories by avoiding any label of each quadrant or drawing any defining lines. The intention is that the board will just look like a set of four lists which have action/ideas from the class that have been placed/classified by the teacher.

The Prediction Control Space and the CAVE Matrix Explained

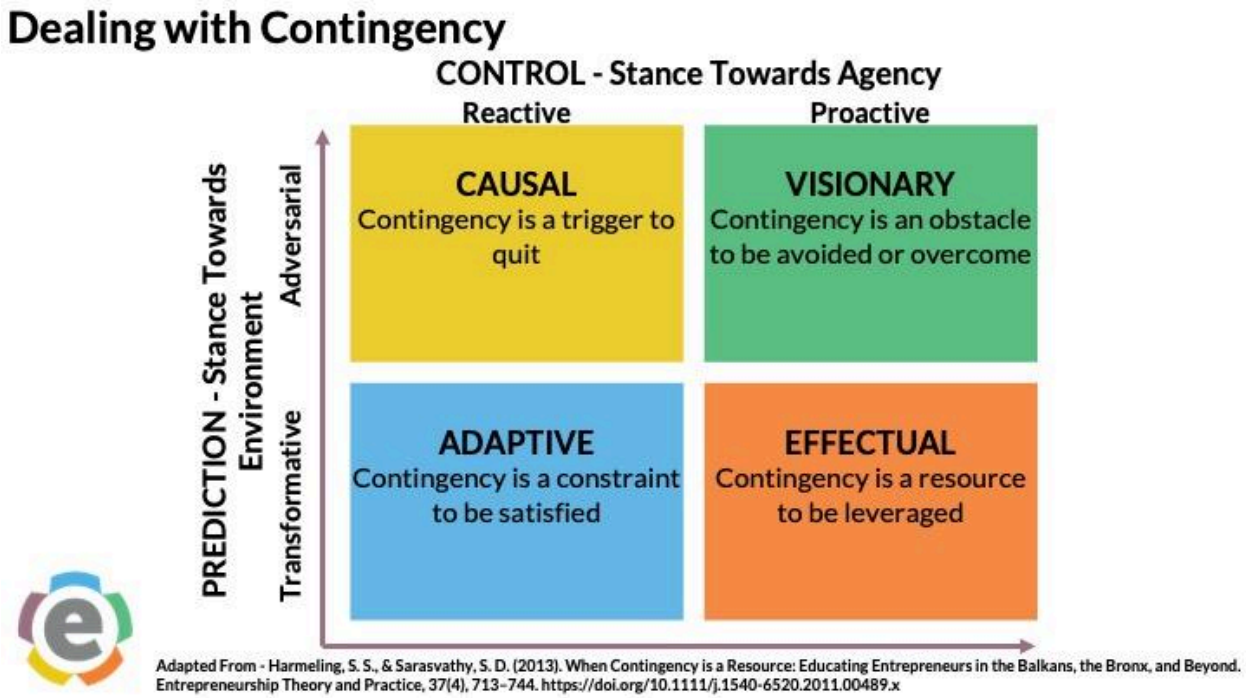
The PC space provides a means to understand how people respond to contingency and specifically whether the actions of Entrepreneurs tend towards a higher level of prediction or control. In a teaching environment, the CAVE matrix (a tool that splits the PC space into 4 quadrants (see diagram) can be used to explore possible reactions to a contingency and what those reactions imply in terms of how the individual views their agency and environment.

The CAVE Matrix

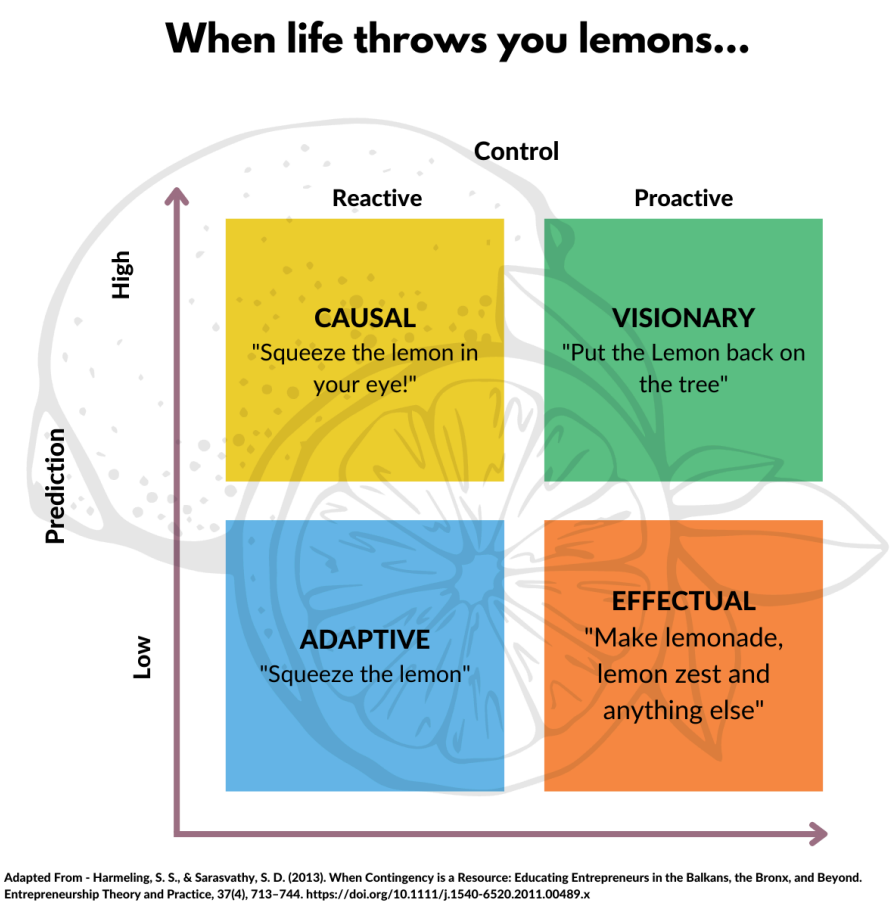
Quadrant 1: Causal	Quadrant 2: Visionary
Quadrant 3: Adaptive	Quadrant 4: Effectual

For example, a teacher could have the students imagine that they were part of the team set to host a rock concert at the school auditorium when the power went out. Would the students say:

- I planned for this and had a generator - Causal
- I will have the concert in the moonlight - Adaptive
- I will have connect the lights to an external power source like a car and go as planned - Visionary
- I will work with my classmates and the performers to figure out what to do - Effectual



Here's the same graphic using the "language" of what you do with lemons…



Classifying the Suggested Responses to the Melting Ice

The majority of the answers will likely be in Quadrant 1 where you will list reasons why the students will suggest they give up, and Quadrant 3 where students will list the ways they will adapt to the environment. Some suggestions will be in Quadrant 2 where students will sometimes come up with creative (and unrealistic ideas) to stay with the original ice sculpture plan ("the show must go on!")

The following are some expected actions to help you classify the ones suggested by students.

Quadrant 1 Causal Examples:

There's nothing I could have done

I would cancel the event and apologize (remind them the train is coming no matter what)

Photographic Exhibition: Showcase professional photographs or videos of the sculptures in their prime to maintain the exhibit's artistic impact, highlighting the beauty of the

sculptures before the rain. - NOTE: this should be in the causal quadrant because they didn't take pictures ahead of time.

Quadrant 3 Adaptive Examples:

Interactive Experience: Invite guests to participate in a "Sculpture Smash" event, where they can engage with the damaged sculptures in a fun way by breaking them down in an organized manner.

Ice Art Workshops: Set up indoor or tented areas where artists can teach guests how to create mini ice sculptures or other crafts related to the exhibit.

Ice-Themed Competitions: Organize fun, ice-themed competitions to engage visitors despite the outdoor exhibit damage.

Pop-up Performances: Offer musical or theatrical performances with an "ice" or "winter" theme to entertain guests while still embracing the spirit of the event.

Hot Beverage and Winter Food Stations: Set up warming stations with hot chocolate and winter foods to keep guests entertained and comfortable despite the poor weather.

Collaborative Ice Re-Building: Invite guests and artists to collaboratively rebuild sculptures, turning the event into a participatory experience where the evolving artwork becomes the focus.

Spontaneous Celebration: Host a spontaneous rain party where guests celebrate the weather. Turn the event into an ice and water-themed celebration, perhaps even featuring live music, dance, or ice-breaking activities.

Turn the Melting into Art: Reframe the melting itself as part of the exhibit by positioning it as a "live performance" of nature interacting with human creation. Let the melting sculptures symbolize impermanence, and have artists and visitors document the transformation as part of the exhibit experience.

Narrative Shift – The Rain Story: Embrace the unexpected weather as part of the exhibit's story. Use it to enhance the exhibit's message, positioning it as a metaphor for unpredictability in nature, life, and art.

Reframe the Outcome: Instead of focusing on what was lost (the sculptures), shift the focus to what can be gained from the event—a community coming together to experience something unexpected and new.

Quadrant 2 Visionary Examples:

Tent and Cooling System: Set up large, cooled tents with industrial air conditioning or fans to preserve the remaining sculptures and create a contained viewing area.

Refrigerated Ice Pavilion: Construct a temporary refrigerated pavilion or cold room to house the most prominent sculptures, maintaining the exhibition in a climate-controlled environment.

Night Viewing: Shift the event to a night-time experience when temperatures are cooler, using special lighting to enhance the remaining sculptures and create a unique atmosphere.

Ice Sculpture Reconstruction: Bring in artists to restore or modify the damaged sculptures, turning the melting process into part of the artistic display.

Temporary Ice Additions: Use dry ice or artificial ice substitutes to replace melting parts of the sculptures, ensuring that the exhibition continues despite the weather.

Quadrant 4 Effectual Examples:

You will likely get few if any Effectual suggestions but listen for whether a student suggests speaking to or working with other groups and/or realizes that Nils alone can't fix the problem.

Other Effectual Examples that might be suggested:

Community Engagement Event: Rather than viewing the melting as a failure, involve local residents, tourists, and artists in brainstorming new uses for the ice.

Collaborate with the Press and Social Media: Use the rain as a storytelling opportunity, partnering with local press and social media influencers to turn the situation into a compelling narrative. Visitors and artists can share their reactions and participation in real-time, creating a buzz and amplifying the exhibit's reach despite the challenges.

Invite the Community to Problem-Solve Together: Rather than trying to fix the situation alone, involve the community—guests, artists, residents—asking for ideas on how to salvage the event.

Finishing out the Suggestion Process

Introduce the idea of the press and how that might change the ideas. Solicit more ideas. Remind the class of all the stakeholders.

Entrepreneurship Research (Starting at 50:00)

Now that the class has submitted their initial ideas on the board, direct the conversation to a short introduction to the entrepreneurship research of Saras Sarasvathy. Use the slides from the teaching deck to explain the study and then the findings from the study.

Group Breakout

Now that the class has been introduced to the findings which will soon be revealed as the Principles of Effectuation. Break them into 3 or 6 different groups:

- Groups 1 and 4 – Identify Nils' Means and construct a new plan
- Groups 2 and 5 – Identify Nils' Risks and construct a new plan
- Groups 3 and 6 – Identify Nils' Partners and construct a new plan

Allow the groups 10 - 15 minutes to meet and prepare a 2 minute presentation to the class identifying Nil's Means, Risk, or Partners, respectively and a suggested plan based on this information.

After the groups have presented, make sure that any new plans are written on the board in one of the still unnamed quadrants.

The Prediction Control Discussion (Starting at 85:00)

After you have given them a chance to suggest their ideas, draw a cross on the board which breaks up the list into the four quadrants.

1) Ask the students to suggest labels for the vertical and the horizontal axes working towards prediction and control (don't be afraid to try labels on for size even if they aren't Prediction and Control) If after 8-10 minutes the students haven't suggested prediction and control, apply those to the Y and X axes, respectively.
2) Now label each quadrant (Causal, Adaptive, Visionary and Effectual) and start with Adaptive emphasizing how people respond to the rain, then go to the visionary and point out how people are trying to keep having the event, despite the rain. Point out how few are in the lower right quadrant. Make the link to this quadrant as the preferred approach for Entrepreneurs because of their understanding that they cannot predict the future.
3) Show the slide "Entrepreneurship Lessons from the Study with Principles" to provide a name for each principle (eg. starting with your means) which you have already described.

Closing - What Happened? (Starting at 100:00)

Describe what happened that day:

1) Train arrived
2) Nils (real name Yngve Bergqvist) had met with the residents and they all met the train to explain the situation and to recruit the press and the tourists into getting involved in the planning of the day.
3) Explain that one of the few sculptures to survive was an igloo and a contest was started to see who could stay in the igloo the longest

4) Explain how in future years the igloo got bigger and people stayed longer until it became an Ice Hotel
5) Play the ICE Hotel Slideshow in Powerpoint (link)