Go or No Go: Learning to Persuade in an Early-Stage Student Entrepreneurship Program

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Abstract - Early-stage accelerator programs teach new entrepreneurs how to identify and exploit venture opportunities. In doing so, they implicitly teach these new entrepreneurs how to develop and iterate claims. But since this function of teaching persuasion has been implicit and generally unsystematic, it's unclear how well it works.

In this study, we examine one such accelerator program. We ask: Does an entrepreneurship training program implicitly teach new entrepreneurs to make and iterate persuasive claims? How effectively does it do this, and how can it improve? We conclude with recommendations for improving how accelerator programs can teach new entrepreneurs to communicate and persuade.

Index Terms - Entrepreneurship communication, entrepreneurial rhetoric, accelerator, value proposition.

INTRODUCTION

In the summer of 2017, a firm we'll call W1 entered the Student Entrepreneurship Acceleration and Launch (SEAL) program at the University of Texas. W1's business pitch was straightforward. Invasive species—specifically zebra mussels and quagga mussels—had begun appearing in Texas lakes. Once established in a lake, these mollusks would crowd out other aquatic wildlife. Worse, they could also ruin the water purification equipment that allowed local towns to use these lakes as water supplies. But current methods of detecting these mollusks were unreliable, and current methods of eradicating them were both expensive and damaging to the environment. W1 offered a new, far less expensive and more reliable way to provide early detection. This was indeed a problem; but did it represent an opportunity for a venture? Through SEAL, W1 would find out whether this venture concept was a "Go" (a viable opportunity) or a "No Go" (an impractical one).

Accelerator programs such as SEAL typically focus on startup teams pursuing a venture opportunity, helping them to develop business models and funding pitches (cf. [18]).

Before they get to the point of exploiting a venture opportunity, startups must first generate a venture idea, turn it into a venture concept, and evaluate it to determine whether a desirable, feasible opportunity exists. Part of determining whether the opportunity is desirable involves developing a claim for value to an intended market—a value proposition—and iterating that claim with feedback from members of the market. That is, teaching entrepreneurs how to develop and iterate claims is a core function of such programs.

However, although it is a core function, persuasion is not systematically taught in such programs: this function of teaching persuasion has been implicit and generally unsystematic, relying on situated experience rather than established principles of persuasion. Indeed, scholars are only in the early stages of studying entrepreneurship communication [15] and the rhetoric of entrepreneurship [16].

In this cross-disciplinary qualitative study, we examine SEAL. This program covers the second stage of venture development, in which a venture concept is incubated, leading to a Go/No Go decision, which is based in part on whether the entrepreneur can identify a persuasive value proposition. We ask: Does an entrepreneurship training program implicitly teach new entrepreneurs to make and iterate persuasive claims? How effectively does it do this, and how can it improve? We conclude with recommendations for improving how accelerator programs can teach new entrepreneurs to communicate and persuade.

The program

SEAL is a nine-week summer program designed to help student teams identify and address threats to their new technology-based ventures. In SEAL, teams such as W1 examine market interest, technology fit and function, and the ability to create a differentiated value proposition. These teams identify key challenges; test business and technology claims in the marketplace; define their value propositions; and communicate their decision to launch ("Go"), stop development ("No Go"), or change strategy

("Pivot"). SEAL differs from other accelerator programs in two ways.

First: in theory, teams all start with a technology from their academic research or program; during SEAL, they explore whether a business can be built around this innovation. This orientation is different from most other accelerator programs, which start with a business problem and seek to develop products to address it. (In practice, as discussed below, we found that SEAL's 2017 firms were a mix of technology-first and problem-first firms.) Rather than incubating the technology, SEAL incubates the concept of converting the technology into a business proposition.

Second: the objective of the program is this Go/No Go decision. Firms leave the program with clarity on whether the business is worth pursuing. That is, firms come into the program with a venture idea; they use the program to incubate a venture concept; and at the end of the program, they decide whether to exploit a venture opportunity [20]. SEAL's Go/No Go decision thus orients teams such as W1 toward making an evidence-based argument to themselves and others: can this innovation anchor a viable business?

The structure

SEAL began in 2009. In 2017, in addition to unstructured mentoring, SEAL structured mandatory events intended to help teams develop. Features included 12-minute *kickoff pitches* at the beginning of SEAL; *mentor surveys* evaluating these kickoff pitches; four 2.5-hour *lunch and learns* in which guest speakers discussed entrepreneurship-related topics; four 2-hour *workshops* in which guest speakers discussed entrepreneurship-related topics, delivered foundational lectures, and answered teams' questions; a *video course* on building companies; unstructured meetings with 2-5 assigned *mentors*; and 5-minute *Decision Day pitches* including their Go/No Go decision.

We asked two questions:
- Does SEAL implicitly teach new entrepreneurs to make and iterate persuasive claims?
- How effectively does it do this, and how can it improve?

BACKGROUND

To answer these questions, we drew on and integrated three areas of the literature: the venture development process; goods-dominant logic and service-dominant logic; and value proposition iteration. In integrating these three areas of the literature, we were able to better understand the choices participants made as they iterated their value propositions.

The venture development process

Ideas are not just products: to successfully commercialize an idea, the entrepreneur must develop a venture concept (including a value proposition that makes the offering appealing for a customer segment), then evaluate whether it constitutes a true opportunity. This process has been depicted in several conceptual frameworks (reviewed and synthesized in [20]). The entrepreneur iterates the venture via feedback from external players, shaping and refining the concept for appropriateness, fit and possible success in the marketplace [7]. Vogel's model [20] (see Figure 1) demonstrates how venture *ideas* emerge from triggers, are developed into *concepts* via iterative feedback, and are then implemented as venture *opportunities*. In the first stage, venture ideas arise from observations, market insight or experience that point to potential value, but these ideas are still ill-defined and not yet actionable [4]. In the second stage, these ideas are iteratively investigated, resulting in a venture concept that links customer need and customer definition with the venture's offering [10]. In the third stage, the concept matures into an actual venture opportunity by uniting the concept with market conditions and the entrepreneurs' own goals and beliefs [7], resulting in a plan to bring a product or service to the marketplace that offers differentiated value. SEAL supports the venture concept stage, ending at the point of evaluation (the Go/No Go decision).
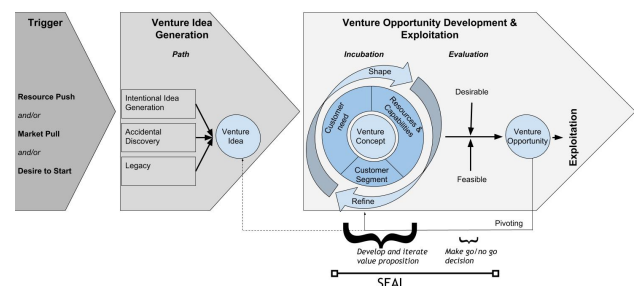

FIGURE 1. VOGEL'S [20] MODEL OF THE IDEA-TO-OPPORTUNITY PROCESS.

Key to this process is the development of the value proposition, which happens during this the incubation stage. The key elements of a value proposition are the linkages between customer need, customer definition or segmentation and the entrepreneur's offering [9] as well as the resources and capabilities. As Figure 1 shows, this process is iterative and often unpredictable, involving data collection, analysis and new proposition testing. If, at the point of evaluation, the entrepreneur believes that a desirable and feasible viable opportunity exists, s/he makes a Go decision and begins planning operational business strategy [2]. Otherwise, the entrepreneur makes a No Go decision, and then must either (a) adapt the value proposition for new market segments, (b) find additional resources and relationships to answer key questions, or (c) abandon the concept altogether [11]. Key to this Go/No Go decision is the ability of the entrepreneur to consolidate and

communicate a value proposition to key stakeholders—and to themselves [7].

Value propositions as GDL and SDL claims

When firms such as W1 move from a venture idea to concept to opportunity, they must conceptualize the offering's value proposition not as a generic good but as a service that benefits specific stakeholders. As claims about value, value propositions can be seen as following one of two different logics: goods-dominant logic (GDL) or service-dominant logic (SDL).

In *The Wealth of Nations*, Adam Smith [13] popularized the "good" as the service unit of exchange (i.e., exchange value). Since that time, marketing has typically focused on the value that is inherent to the product being sold by the firm—that is, it has followed what Vargo and Lusch [19; cf. 6] call goods-dominant logic (GDL). In GDL, claims about value are descriptive claims, focusing on the features of the product. For commodities, such descriptive claims are enough; buyers have a good idea of the problem the product solves, and thus are mostly interested in the product's specifications.

Since most teams entering SEAL, including W1, have an established technology or product set, they typically take a GDL approach to conceptualizing and describing their innovation. Yet a GDL approach to understanding value creation is too limiting for commercializing new technologies: GDL does not consider the use-value. Vargo and Lusch [19] argue for applying service-dominant logic (SDL), in which the value of the product is understood as co-created by firm and customer. In SDL, claims about value are proposal claims, focusing on the potential value of integrating the solution into the customer's operations [5]. SDL is better suited for emerging offerings, such as the new technologies that SEAL's firms have produced. In those conditions, the co-creation between consumer and producer leads to more innovative value propositions that are more persuasive for customers because they identify and address market pain.

METHODOLOGY: RESEARCH DESIGN, DATA COLLECTION AND ANALYSIS

This study was developed as an exploratory, qualitative case study, using conventional qualitative methods for collecting and analyzing data [3, 8, 12]. Additional methodological details are in [17]. Below, we discuss the entrepreneurship training program, along with participant selection, data collection, reduction, and analysis procedures.

In 2017, SEAL had 17 teams, including W1. After their kickoff pitches, mentors ranked these teams via Feedback Forms (BPPFFs): up to 18 mentors individually rated each team on a 1-5 scale for multiple criteria, including "Investment Potential: The business represents a real investment opportunity." This criterion functioned as an overall summary of the mentor's impressions: it represented a judgment based on all of the previous criteria.

To select the sample for this study, researchers took the average of the mentors' scores for Investment Potential for each of the 17 firms. The firms were then sorted based on their average Investment Potential scores and every other firm was selected, for a total of 8 firms (47%) in the sample. Firms were then approached. If a firm said no to interviews, an adjacent firm on the ranked list (i.e., ranked either the next higher or the next lower) was approached. Two firms said no, and a third did not respond.

This strategy yielded a sample with a range of readiness; a range of industries; firms approaching different markets; and firms with different categories of innovations (healthcare, information technology, transportation, water technology).

Data collection and analysis

We collected the following data: Initial and final pitch decks; mentor surveys based on the initial (kickoff) pitches; videos of initial and final pitches; observations of structured training (five Lunch and Learns and three workshops); semistructured interviews with selected team leads at the beginning and end of the program; and semistructured interviews with selected teams' mentors.

The eight selected firms represented a mix of investment potential as assessed by mentors. Data were reduced further by coding data and investigating specific themes.

All interviews were transcribed, then coded and triangulated. We coded three datasets: (a) initial interviews with firms, (b) final interviews with firms, and (c) interviews with mentors. Coding was non-exclusive. Entries were coded under Author 1's direction, initially using descriptive starter codes [8] based on central concerns implied within the theoretical frame. Next, we performed open coding [3] to inductively identify recurrent themes related to problematization, interessement, and value proposition statements and transformations.

Once we identified themes in codes, we used other datasets to confirm and illustrate them, examining how firms transformed their value propositions between pitch decks.

Triangulation

We also triangulated datasets, comparing interview statements with each other and with other data. Specifically, we triangulated along these lines:

The initial value proposition. We compared firms' initial interview statements about their value propositions with their initial (kickoff) pitch decks.

The initial understanding of their challenges. We compared firms' initial interview statements about their challenges with the kickoff mentor forms.

Changes in the value proposition. We compared firms' initial and final interview statements about their

value propositions' initial and final pitch decks with their mentors' interviews.

Outcome. We compared the firms' changes in their value proposition to their Decision Day outcome (Go, No Go, or Pivot) and rationale.

Based on this analysis, we first discuss firms' orientations to the problem, then their logic orientations, then their point in the Vogel cycle.

Firms' orientations to the problem

Firms in this sample worked in four broad domains: information technology, health sciences, water technology (including W1), and transportation. Firms varied widely in focus and entrepreneurship education.

SEAL is designed to support teams that have developed a working technology, but must determine whether it can support a business ("technology-first"). This orientation contrasts with most traditional incubators, whose teams address a known problem by developing a new technology ("problem-first"). However, SEAL 2017 firms were a mixture of technology-first and problem-first teams.

The two *technology-first* firms (H2, T1) were built on technologies developed by advanced degree holders within university research. Thus these technologies were relatively stable, but the firms were new to considering business applications and market pain. Since these firms tended to be formed around technology developed in long-term funded research programs, their main challenge was to find market pain that could be solved by the existing technology. These technologies were grounded in deep technical expertise and were not easily changed. Nor were the technology developers (university researchers) familiar with the communications and reward structure of business, as mentor M1 pointed out (cf. [14], p.27).

The four *problem-first* firms (I1, I2, I3, H1) were all built by undergraduates. They identified market pain first, then used readily available technology to address it. They also had short development time (6-10 months). For these firms, the main challenge was to quickly develop technology that could address the market pain; they had little investment in the technology itself.

Between these two types were the two *water technology* firms (W1, W2), both of which applied familiar, malleable technology to an unfamiliar domain. The founder of W2, an undergraduate, "was playing with an Arduino [an open-source electronic prototyping platform], and I always wanted a shower that I could use as an alarm clock." Once he developed the basic technology, he and partners "started talking to different markets, the apartment market, thinking about residential. The product changed, our market changed, and we found research" leading them to the new business idea. The idea again changed drastically as W2 began talking to potential customers at hotels. That is, W2

had iterated the product several times before even entering SEAL. The founder of W1, a Ph.D.-holding biologist specializing in cancer research, heard about the problem of invasive species in Texas lakes and applied ideas from "early diagnostics for early stage cancers" to the new domain. Similar to cancer research, W1's approach initially focused on early detection and prevention. For both of these firms, the challenge was to synchronize a malleable technology with a problem in an unfamiliar domain.

Firms' logic orientations: GDL and SDL

As noted earlier, firms can understand their value propositions in terms of GDL or SDL. Our previous research has suggested that, for early-stage technologies, SDL is a more persuasive orientation, yet technology innovators who are learning to be entrepreneurs often default to GDL and must be taught to reorient to SDL.

Firms offered their value propositions for the first time during their kickoff pitches. These initial value propositions varied considerably.

All but one firm (T1, which had been thinking about commercializing the technology for "a week") articulated an initial value proposition in the pitch deck. These value propositions tended to be GDL: they mainly described features rather than proposing benefits oriented to a specific problem. All but H2 and I3 emphasized the technology's specifications in their pitch decks; H2 and I3 partially framed the technology as a service in their value propositions (SDL).

Mentors noticed: their feedback pressed the firms to move from description to proposal arguments. In the metric that was most relevant for the value proposition, "Problem/Solution clearly described," mentors consistently rated W1 most highly; their qualitative comments praised W1 for identifying a "clear need, application" and "Addressing important problem," and their criticism centered on execution: "What is it going to take to get this done?" The second highest rated, I2, received a split judgement on the question: those who rated it highly saw a clear answer to a problem ("solves an important problem, need to target specific business i.e. vertical") while those who rated it poorly indicated that I2 had not identified a problem at all: ("What is the users [sic] problem? Why is this a big opp?").

On the other end, firms that rated low on this question did not effectively propose a solution to a specifically defined, well-explored problem. One mentor commented on H1's presentation that "I suspect there's a great product here, but we didn't get enough info on what the meat of the product is, the value [proposition], the [benefits], the technical needs, etc." For W2, one mentor commented that although a basic problem had been identified: "Your challenge this summer will be transitioning [W2] from a product into a business"—a move that would involve thoroughly investigating the size, characteristics, and needs of the market as well as the product's lifespan.

The most variation in mentors' feedback showed up in ratings for I1 and T1, the firms with the most recent business ideas (6 months and 1 week). Mentors commented that I1's problem statement "was a bit muddled" and "vague," and one cautioned that I1 had not thought through the competitive landscape. Similarly, they commented that T1's pitch "is a tech right now" and T1 should be "developing a project/ biz plan."

In their initial interviews, firms provided more insight on their value propositions, which tended to be technology descriptions (GDL) rather than proposals (SDL).

In sum, at the beginning of the SEAL program, firms were generally oriented to GDL—that is, they generally offered specific descriptions of their technologies' features rather than proposed benefits. These descriptions did not answer one or both of these critical questions posed by mentors: What problem would the product solve and what value would it bring (H1, I1, I2, T1)? How could the problem be solved in a way that would create a sustainable business (H2, I3, T1, W1, W2)?

Eight weeks later, all firms had iterated their value propositions to answer such questions. The Demo Day format did not collect BPPFFs from mentors, but we examined the shift in value propositions from initial to final decks, triangulating these with in-process interviews with firms and mentors. Table 1 shows how selected firms articulated value propositions in slide decks.

TABLE 1. HOW SELECTED FIRMS ARTICULATED VALUE PROPOSITIONS.

Firm	Written value proposition from kickoff deck	Written value proposition from Demo Day deck
I1	"For travelers: voice assistant "remote control" for your hotel room" (Slide 3) "For hotels: Communication In-room Revenue Data mining, Analytics" (Slide 4)	"In-room voice assistants will create a better customer experience for travelers and increase hotel's daily RevPAR (revenue per available room)" (slide 2)
T1	(No value proposition statement; the deck identifies potential markets and applications.)	"A patent-pending air levitation design Maglev heights at a fraction of the cost 30% cheaper build minus SURFACE COST! Designed to levitate a train and make MagLev Irrelevant!" (slide 4)
W1	"Solutions: Early Detection"; emphasizes novelty, flexibility, cost (Slide 8) "Solutions: Equipment"; emphasizes automation, data quality (Slide 9) "Solutions: Eradication"; emphasizes specificity and low cost (Slide 10)	"[W1] Eradication = Specific, Efficient, Scalable Species Specific Proven Technology in Oncology and Human Health Applications Large Scale Production at Low Cost" (slide 9)

As expected, the technology-first firms (H2, T1) iterated their value propositions the least. Both retained a GDL orientation, describing their technology's features rather than positioning the technology as a solution to specific market pain. For instance, H2 described its technology as "A platform technology providing single molecule level protein information" (slide 2) and illustrated how this technology could replace four other components; but H2 did not explicitly explain how this replacement solved a problem. Similarly, T1 offered a benefit—"Maglev heights at a fraction of the cost" (slide 4)—and described specific products that could be built with the technology, but did not articulate a specific problem or a business that could be built around the technology.

The problem-first firms (H1, I1, I2, I3) iterated their value propositions, generally toward an SDL orientation. For instance, whereas H1's initial value proposition was a list of features, the revised value proposition claimed that the product delivered specific benefits that were critical to an audience: it "instantly empowers healthcare workers to provide the best quality of care, at the best possible price." I2 and I3 both communicated their value propositions by using SDL-oriented quotes from actual customers. Table 2 illustrates I1's value proposition iterations in more detail.

TABLE 2. I1'S VALUE PROPOSITION ITERATIONS.

Written value proposition from kickoff deck	"For travelers: voice assistant "remote control" for your hotel room" (Slide 3) "For hotels: Communication In-room Revenue Data mining, Analytics" (Slide 4)
Spoken value proposition (interview 1)	"My value proposition is to hotel saying, "You pay for this software service and you let people interact with this for free. What we're charging you for is the analysis of how people interact." The behavior interaction, providing you reports, visualization of that data, insight that we're pulling from that data. … the value proposition is in we're providing insight on data analysis."
Written value proposition from Demo Day deck	"In-room voice assistants will create a better customer experience for travelers and increase hotel's daily RevPAR (revenue per available room)" (slide 2)

Spoken value proposition (interview 2)	"a way to communicate and customize the experience.... insight and truly providing a good experience for their customers, but insight into what those customers want."
Value proposition iterations	ARGUMENT APPLICATION

Finally, the water tech companies (W1, W2) both iterated their value propositions, reorienting them along SDL lines. W1 shifted its claims away from early detection and monitoring toward eradication and emphasized how "Specific, Efficient, Scalable" and "Low Cost" their solution was. W2 dropped some marginally beneficial aspects from its original value proposition and added new benefits, including an additional revenue stream on which its customers could capitalize. Table 3 illustrates W1's value proposition iterations in more detail.

TABLE 3. W1'S VALUE PROPOSITION ITERATIONS.

Written value proposition from kickoff deck	"Solutions: Early Detection"; emphasizes novelty, flexibility, cost (Slide 8) "Solutions: Equipment"; emphasizes automation, data quality (Slide 9) "Solutions: Eradication"; emphasizes specificity and low cost (Slide 10)
Spoken value proposition (interview 1)	"… Early detection prevention costs about one-tenth of the cost of annual maintenance. ...You save 90 percent of your money each year you do an early detection and monitoring as opposed to doing treatment. The second stage of that is this is a massive market. There's about two billion dollars spent annually on invasive species. Mitigation, about half of that is spent of zebra and quahog mussels. They are also spreading rapidly. It's an immediate problem that needs to be solved."
Written value proposition from Demo Day deck	"[W1] Eradication = Specific, Efficient, Scalable Species Specific Proven Technology in Oncology and Human Health Applications Large Scale Production at Low Cost" (slide 9)
Spoken value proposition (interview 2)	"one, detect [invasive species] earlier so that you can mitigate the problem or eradicate the problem immediately. Two, if an issue has been detected, there are methodologies that have been successful at early stage or low biodiversity stage. They can be eradicated. ... we're developing a chimeric protein that's very specific to only killing zebra mussels and nothing else in the environment. ... we're ... developing an automated sampler that can be installed at problem points and sample the water remotely. You can save time and money. You don't have to send out people constantly to go surveying."
Value proposition iterations	ARGUMENT APPLICATION FINANCIAL

In sum, firms did iterate their value propositions, and generally from GDL to SDL.

Firms' points in the Vogel cycle

Finally, as discussed earlier, SEAL was an accelerator program focused on the concept stage: ideally, firms have already developed a venture idea before entering the program, and seek to incubate a venture concept, shaping and refining it as they learn about the customer segment, customer needs, and their own resources and capabilities. By the end of SEAL, firms should reach the evaluation point (the Go/No Go decision). After SEAL, firms might seek to enter the next stage, in which they exploit the venture opportunity.

However, not all firms were in the concept stage. Some firms, such as T1 and I1, were either still in or barely out of Stage 1: they were still developing a venture idea. Others, such as W2, had already passed into Stage 3: they had made their evaluation and were already exploiting the venture opportunity. Those who were solidly in Stage 2, such as W1, appeared to get the most from the program. Three examples follow.

Stage 1: Idea. T1 had developed practical levitation technology for his master's thesis. Just before SEAL, he decided to commercialize that technology: He told us in the first interview that he had been thinking about commercializing the technology for "a week." At the beginning of SEAL, he was still in Stage 1, developing a venture idea. His initial pitch focused on a number of potential applications for the technology, from pallets to levitating skateboards to amusement park rides, but he had not explored specific markets for any of these ideas. Not surprisingly, in the initial mentor survey, mentors commented that T1's pitch "is a tech right now" and T1 should be "developing a project/ biz plan." Similarly, mentors commented that I1's problem statement "was a bit muddled" and "vague," and one cautioned that I1 had not thought through the competitive landscape.

Stage 2: Concept. W1 was firmly in Stage 2, incubating the venture concept. Although W1 had already joined a bioscience incubator and had begun contacting potential market members and discussing sales, W1 was still identifying possible markets and evaluating whether the venture concept could turn into an opportunity. In the initial mentor survey, mentors rated W1 most highly; their qualitative comments praised W1 for identifying a "clear need, application" and "Addressing important problem," and their criticism centered on execution: "What is it going to take to get this done?"

Stage 3: Opportunity. W2, which had been developing for two years with the help of four incubators and 16 mentors, was already past the evaluation point and well into Stage 3, exploiting the venture opportunity. Not surprisingly, W2's representative claimed that he did not find SEAL especially helpful. The structured programming

would have been useful earlier in his firm's development, he said, but in his view, the structured programming did not adequately communicate startup risks or provide critical feedback. He suggested that the program be structured to facilitate customer discovery, like 3-Day Startup. In the initial survey, one mentor commented that although a basic problem had been identified, "Your challenge this summer will be transitioning [W2] from a product into a business"—a move that would involve thoroughly investigating the size, characteristics, and needs of the market as well as the product's lifespan.

DISCUSSION

Based on these findings, SEAL did support firms as they iterated their value propositions and developed their Go/No Go arguments. All teams iterated their value propositions. Yet we have identified gaps in this support, gaps that meant that SEAL did not evenly teach teams how to develop more persuasive value propositions.

One gap was due to a mismatch between SEAL's envisioned technology orientation and the actual orientations of firms. SEAL was set up to support firms that had developed a technology and sought a problem to which it could be applied, and had developed a firm venture idea that they were ready to incubate as a venture concept. Yet, out of the eight selected teams, only two had a genuine technology-first orientation (H2, T1); two others partially fit this orientation (W1, W2). Of these four teams, only two were actually in the incubation stage (H2, W1), with the other two being in either the venture idea stage (T1) or the venture opportunity stage (W2).

Another gap was in the program itself. Specifically, although the program implicitly attempted to reorient firms from GDL to SDL, it did not offer explicit instruction in how to reorient. Consequently, teams varied widely in terms of how much they reoriented, with some teams (e.g., T1) retaining a GDL orientation even at the end.

A third gap had to do with stage. Although SEAL was set up as an incubator—incubating the venture concept— some teams were at the previous or subsequent stage, either still working on their venture idea or already exploiting their venture opportunity.

IMPLICATIONS

Given what we know about the idea-to-opportunity process, the go/no go decision, GDL and SDL, and value proposition iteration, this study suggests several implications for entrepreneurship training programs like SEAL.

Problem 1: Funnel.

SEAL cannot cover the entire journey from venture idea to concept to opportunity; instead, it covers the concept development (incubation) stage up to the evaluation point (the Go/No Go decision). However, SEAL's wide "funnel"—its broad set of criteria for participating firms— drew in firms that were outside the concept development stage. These firms ranged in age (from a week to over two years), experience (from shallow experience in a single accelerator to deep experience with several entrepreneurship programs and mentors), orientation (from technology-first to problem-first), business development stage (from an initial idea to initial sales), and sector (information technology, healthcare, transportation, water technology).

Problem 2: Persuasion

New entrepreneurs face an audience problem. During the venture concept stage (i.e., incubation), entrepreneurs who are attempting to commercialize a new technology need to understand customer segments, customer needs, and resources and capabilities in order to refine their venture concept and propose it. That is, they must develop a value proposition as a proposal claim that finds agreement among channels to users, customers, or funders who can provide essential resources to new ventures. Yet existing entrepreneurial approaches have typically not treated the value proposition as a claim to be developed and thus have not provided strong principles or guidance on how to iterate such claims; value propositions were usually taught with examples, formula statements, or anecdotes rather than structured exercises and principles. SEAL offered implicit, but not explicit, guidance for improving persuasion.

Problem 3: Structured programming

SEAL's wide funnel allowed it to help many kinds of firms. As a result, SEAL's structured programming was provided at a general level and did not correspond to the needs of some firms. For instance, one Lunch and Learn was only relevant to the three firms built on funded research. Structured programming was also geared for the incubation stage: it was too elementary for experienced firms in the concept stage such as W2, yet too advanced for new firms still in the idea stage such as T1. Nevertheless, all firms were required to participate in all structured programming.

Problem 4: Varying mentorship

In addition to this standardized programming, firms received customized feedback from mentors. However, these mentors varied in their levels of participation, and thus some firms received much more feedback than others. Additionally, mentors varied in their level of domain expertise. Finally, although some mentors took on an ad hoc coordination role, this did not happen for all firms. Thus mentorship was inconsistent from firm to firm and did not provide enough customization to address all firms' individual needs.

Due to these problems, SEAL had a difficult time offering the right guidance for helping firms to develop more persuasive value propositions. We offer the following

recommendations for accelerator programs similar to SEAL:

Recommendation 1: Narrow the funnel

Accelerators focused on venture concept incubation should narrow their funnel so that programming can serve more specific needs. Specifically, they should (1) specialize in technology-first firms and (2) serve only firms in the concept development stage. By narrowing the funnel, such accelerators can better address needs such as access to mentors, potential customers, channels and individuals who could advocate for firms to be considered by funding groups. Feedback from these key individuals provides data to base value proposition iteration models so that the product can better fit market needs and funder interest. Doing so would allow SEAL to more effectively customize structured programming and select specific mentors, providing a more cohesive experience and addressing more specific persuasion needs.

Recommendation 2: Explicitly teach persuasion strategies

Firms had learned much from structured programming and mentors, but what they learned about value proposition iteration was implicit and unsystematic. Perhaps for this reason, firms generally iterated their value propositions in only one or two ways.

For this reason, entrepreneurship training programs such as SEAL should explicitly teach value proposition iteration strategies, aligning them with the incubation stage. Specifically, value propositions could be taught as claims and reinforced with exercises that encourage entrepreneurs to explore how different claims can persuade different stakeholders. Furthermore, exercises could help firms to recapitulate their core claims across the various genres they must produce, from elevator pitches to funding pitches to marketing materials.

Recommendation 3: Supplement structured and unstructured programming with semistructured programming

In addition, entrepreneurship programs such as SEAL should supplement (standardized) structured programming and (customized) mentorship with a third (semi-customized) set of activities. In SEAL, after Lunch and Learns, firms could receive "homework": a set of exercises that allow them to apply standard principles to their specific firms. This homework can include incubation-stage topics such as customer discovery, customer validation, pivoting, and value proposition iteration. Such guided exercises could help firms to apply standard principles such as SDL to their own unique circumstances. Furthermore, they can provide a feedback loop that puts firms in dialogue with market representatives, giving them guidance in seeking, gathering, and interpreting feedback from representative stakeholders (cf. [1]).

Recommendation 4: Supplement mentors with a case manager

Finally, although some firms had a mentor who took on an ad hoc coordination role, other firms did not. Thus mentorship was inconsistent and sometimes did not address firms' individual needs. To address this issue, a lead mentor or "case manager" could be assigned to each firm in order to coordinate other mentors, connect structured programming to firms' individual cases, and discuss the results of their "homework." Further, the "case manager" can offer links to more specific mentors or advisors with tailored experience or insight to address entrepreneurs' needs. In short, the "case manager" could guide teams through the venture concept stage to the evaluation point (the Go/No Go decision).

We believe that these changes could improve the accelerator program by simplifying the audience and explicitly teaching persuasion strategies suitable for that audience.

POSTSCRIPT: WHERE IS W1 NOW?

We informally interviewed W1 in May 2019. W1 is now in the exploitation stage, providing services to clients. In that stage, W1 has continued to iterate its value proposition, linking its offerings into a "life cycle": "So we focus it now on a whole life cycle process. So before we first started, we were talking about prevention. Then we moved to let's focus on mitigation. So we found that trying to do one or the other and then we soon start saying we do all these things, it looks to the client like we're trying to boil the sea." To address that perception, W1 has updated its value proposition: "So now our value proposition is we're your one stop shop for all things, prevention, mitigation and we're working on eradication." And it has positioned its sales approach in service of that value proposition: "We are a turnkey solution… just a service agreement contract. We'll install it, we'll tell you what's going on, all you have to do is send us the stuff. So it's low impact, low cost." That is, W1 had continued to learn, and to iterate the value proposition, beyond the venture concept phase supported by SEAL.

W1 concluded with the main takeaway from SEAL: "the issue is still -- and I didn't understand then but I do much more now, is to be more proactive and see the problems coming down the road before they hit you, as opposed to being reactive and reacting to the problems that we have."

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