Beyond the Explicit: excavating a pedagogical approach to knowledge for entrepreneurial action

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Beyond the Explicit

Excavating A Pedagogical Approach to Knowledge for Entrepreneurial Action

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Abstract

While the variation in objectives and methods for entrepreneurship education is significant, most entrepreneurship educations deliver one of two main interpretations: learning about the phenomenon of entrepreneurship (learning *about*) or learning a skill-set to become an entrepreneur (learning *for*, *in* or *through*) (Mwasalwiba, 2010; Rasmussen & Sorheim, 2006). Educations aimed at training individuals to act entrepreneurially often employ an action-based approach (Bennett, 2006; Jones & Iredale, 2006; Leitch & Harrison, 1999; Rasmussen & Sorheim, 2006). We believe that even action-based entrepreneurial educations stop short of achieving the personal learning required by the individual for engagement in the entrepreneurial process. This paper is the result of a joint effort to go beyond the explicit program design and curriculum in our two institutions to excavate the implicit commonalities in our pedagogical approaches for developing personalized entrepreneurial learning. We call this learning the entrepreneurial Know Why and we believe it is fundamental to the development of entrepreneurial intention, behavior and capacity. Thus the purpose of this paper is to contribute to the pedagogy for entrepreneurship by explaining the meaning and significance of the entrepreneurial Know Why and by describing an educational approach that facilitates its development.

Keywords: entrepreneurial learning, entrepreneurial behavior, know why, know how, action-based, pedagogy

INTRODUCTION

Entrepreneurial learning has been defined as the active and cognitive processes individuals use as they acquire, retain and apply entrepreneurial competencies (Young, 1997). There is increasing consensus around what constitutes the entrepreneurial competencies required in starting a new venture, building mainly from longitudinal studies of the actions of nascent entrepreneurs (see PSED I & II, Kauffman and CAUSEE studies by, for example Davidsson & Reynolds, 2009; Gartner, Carter, & Reynolds, 2004; Reynolds, 2007; Robb & Reynolds, 2007; Senyard, Davidsson, Gordon, & Steffens, 2009). However, knowing the actions required to start a new venture has not translated into a consensus around educational content, i.e. what is being taught or how content and learning should be delivered. A recent review of entrepreneurial teaching methods illustrates the complexity and incongruence of entrepreneurship education, with various methods fulfilling various objectives, with blurred demarcation between objectives (Mwasalwiba, 2010). While the majority of entrepreneurship educations address knowledge about entrepreneurship in general, or the entrepreneurial process of starting a new venture more specifically, fewer provide knowledge specifically for engaging in the process (Mwasalwiba, 2010). A rare few facilitate entrepreneurial learning through direct involvement in the creation of a new venture, where the development of the venture is used as the core learning vessel of the education (Lackeus & Williams Middleton, 2011). We believe that entrepreneurial educations sometimes struggle to get to the level of personal learning, due to a lack of understanding about the knowledge required by the individual for engagement in the entrepreneurial process (Weaver, D'Intino, Miller, & Schoen, 2009; West III, Gatewood, & Shaver, 2009). We realize that part of the cause for falling short of achieving this goal is also due to institutional challenges and constraints, which we address later.

This paper is the result of a joint effort to go beyond the explicit program design and curriculum in our two institutions in order to excavate the implicit commonalities in our pedagogical approaches to developing personalized entrepreneurial learning. We call this learning the entrepreneurial Know Why and we believe it is fundamental to the development of entrepreneurial intention, behavior and capacity. Thus the purpose of this paper is to contribute to the pedagogy for entrepreneurship by explaining the meaning and significance of the entrepreneurial Know Why and by describing an educational approach that facilitates its development.

The format is as follows. The paper reviews literature discussing approaches to entrepreneurial education, focusing on action-based learning. The concepts of entrepreneurial Know How and Know Why are investigated in order to understand how pedagogical approaches that capture individual and implicit learning contribute to the development of entrepreneurial competence and capability to act.

THEORETICAL FOUNDATIONS

Current research tentatively agrees that entrepreneurship can be taught (Carrier, 2005; Charney, Libecap, & Gary, 2000; Henry, Hill, & Leitch, 2005a, b). The field of entrepreneurship education research is now addressing the questions of what should be taught and how content should be delivered (Bechard & Gregoire, 2005; Carrier, 2005). An extensive review by

Mwasalwiba (2010) finds significant variation in generic objectives and methods for entrepreneurship education with differentiation in content somewhat dependent upon the argument that what is taught ought to be context specific.

Even so, most entrepreneurship educations deliver one of two main interpretations: learning about the phenomenon of entrepreneurship and/or learning a skill-set to become an entrepreneur (learning *for*, *in* or *through*) (Mwasalwiba, 2010; Rasmussen & Sorheim, 2006). The first is articulated mainly as learning *about* entrepreneurship, and provides content based knowledge, building more from a behaviorist tradition (Krueger, 2009). The latter has been articulated as learning *for, in,* or *through* entrepreneurship (with minor specifications regarding the three prepositions used, see Mwasalwiba, 2010). Rae (2005) argues for a theory of entrepreneurial learning that builds upon social constructionist theories, supporting the progression from "teaching about" towards "learning for" entrepreneurship. Bennett (2006) differentiates the *about* and *for* (which we associate with the *in/through* of Mwasalwiba's work) interpretations as 'passive' and 'active', where the latter are generally used by educations aimed at training individuals to act entrepreneurially, and thus often employ an action-based approach (Bennett, 2006; Jones & Iredale, 2006; Leitch & Harrison, 1999; Rasmussen & Sorheim, 2006).

There is increasing interest in developing entrepreneurial education that delivers knowledge for the creation of new ventures – knowledge that allows the individual to practice entrepreneurship (for example to become a start-up entrepreneur) (Bager, 2011). Evolving the pedagogy to deliver this learning is an ongoing challenge. Educational providers struggle not only to determine which concepts and skills are critical to their selected approach, but how to incorporate learning which develops the personal reasoning individuals need to make the various choices and decisions vital to their own entrepreneurial development and situation (Krueger, 2009).

Action-Based Learning in Entrepreneurship

Entrepreneurship education that is action-based, i.e., focused on learning *for, in,* or *through* entrepreneurship, is said to develop and stimulate entrepreneurial activity (Gibb, 1996, 2002; Leitch & Harrison, 1999; Ollila & Williams Middleton, 2011; Rasmussen & Sorheim, 2006). Similar to theoretically based approaches, an action-based approach to entrepreneurship education allows the learner to gain knowledge and understanding of what and who is important when attempting to act entrepreneurially, as well as how actions can and perhaps should be carried out in order to achieve the desired effect. For example, DeTienne and Chandler (2004) found that having students practice identifying opportunities for entrepreneurial action increased their innovativeness in doing this task. Action-based approaches also deliver learning which requires the individual to apply content through simulation or in real-life venture creation, or in initiation of new innovations within existing firms. Action-based learning approaches in entrepreneurship build upon the concepts of action learning (Revans, 1971), learning by doing (Cope & Watts, 2000; Dewey, 1916) and experiential learning (Boyatzis & Kolb, 1995; Kolb, 1984; Politis, 2005; Taylor & Thorpe, 2004) and story-telling (Rae, 2000, 2004, 2005), in order to capture the knowledge gained from personal experience of entrepreneurial action and context.

Personalized Action Learning

The application and use of contextual and experiential information focusing only on action neglects the critical personal learning that comes through reflection and emotive responses (Boud, Keogh, & Walker, 1985; Kyrö, 2008). This active personalized learning, as distinguished from action-based learning, occurs when a person takes control of her own learning experience and shapes it to herself. In other words, while most action-based learning in entrepreneurship has focused on doing the What, and some the How, we are more concerned with the Why, with ensuring the development of an 'entrepreneurial logic'. By entrepreneurial logic, we mean the sensemaking and reasoning used for decisions and choices made as the individual creates (perhaps in combination with others) a new venture.

A compelling and practical justification of the personalized action learning we advocate comes from the work of Sarasvathy (2008; 2001). She distinguishes an approach to entrepreneurial knowledge and action in contrast to what she described as the prevalent "causal" logic where decisions are based upon known or predictable artifacts, such that actions are carried out and resources accumulated in order to achieve a predetermined outcome. She proposes that the entrepreneur, rather than using a known process to meet given ends, instead might create the various possible ends based on the means available to her – an approach she defines as effectuation. She argues that effectuation is far more productive in a world characterized by uncertainty and an unknowable future, as it provides the entrepreneur with a logic of control over resources available.

The effectual approach has been developed further in the pedagogical research literature as compared to theoretical literature. For example, Politis (2005) argues for the value of this approach as part of a conceptual framework for entrepreneurial learning, particularly for explorative development of ideas (as compared to exploitative). In a similar vein, Neck and Greene argue that while inherently complex, entrepreneurship includes a method involving techniques for creating new value (Neck & Greene, 2011). They also recognize the "diversity of entrepreneurial motivations and desired outcomes or definitions of success" (2011: 61), and propose that the foundation for this method of educating for entrepreneurship is that "each student understands how he or she views the entrepreneurial world and his or her place in it" (2011: 62). Neck (2011) and her colleagues in Greenberg, McKone-Sweet, and Wilson (2011) elaborate the creation logic and methods used by entrepreneurs and offer pedagogical approaches to educating students for entrepreneurial leadership. Their perspective centers on the recognition that entrepreneurial education's mandate is to "develop leaders who are not paralyzed by emerging or unknowable facets of the world, where reliable and relevant data are not yet available" (Greenberg et al., 2011: xi); i.e. individuals capable of operating and making decisions within uncertain or ambiguous environments, which aligns with Sarasvathy effectuation proposition.

ENTREPRENEURIAL KNOWLEDGE FOR HOW AND WHY

As discussed earlier, the knowledge for practice that enables the entrepreneur to act can be categorized as the Know What, Know How, and Know Why. The knowledge an individual needs about which actions to engage in, we call the Know What; the knowledge an individual needs for enacting the actions is the Know How; and the knowledge that an individual needs to motivate and legitimize her own entrepreneurial action we term the Know Why.

Insert Figure 1 about here

The Know What is now fairly well established through large scale studies as a set of 26 actions important for venture creation (Gartner & Carter, 2003) and subsequently been grouped by Liao and Welsch (Liao & Welsch, 2008) into four categories: planning activities, establishing legitimacy, resource combination and market behavior. In this paper, we treat the Know What as the context within which the Know How and the Know Why must be developed. The Know What is essentially generic to new venture creation, though of course we recognize that many contextual contingencies shape what the entrepreneur can, should and will do. It is the Know How and the Know Why that must be tailored to the person that is to her situation and more importantly to her particular make-up of capabilities, limitations, motives, values, and beliefs.

Know How

Know How is knowledge of the process by which the content of entrepreneurial action (the what) is carried out. Know How involves knowledge of the steps to take in creating a new venture, and the typical sequence in which these are done. It also includes approaches that adapt the generic process to the specific context and individual characteristics of the person navigating the process. The personalized approach involves knowledge of how to carry out the steps in the most efficient and effective means possible, given the skills and strengths and motives, among other particularities, of the individual.

Know Why

Know Why for practice addresses a different question than the preceding literature addressing the Why of entrepreneurship. Economists have sought to answer Why questions about success, growth and survival rates at the level of societies (for example, see Carree & Thurik, 2003). Sociologists have sought to answer Why questions of a similar sort, as well as the questions about the role of social institutions and other societal factors on entrepreneurial phenomena. Psychologists have concerned themselves with explaining Why there are individual differences in entrepreneurial action and success (for example, see Baron, 1998 and other work of Baron). Know Why for practice asks 'why should the entrepreneurially inclined individual start up a new venture?' – in the vernacular, 'what's in it for them?' and 'how do they arrive at this conclusion'?

We define the entrepreneurial Know Why as the personal logic that enables the individual to act entrepreneurially, and specifically, to create new ventures. Thus, the personal logic is the knowledge applied through practice (i.e., behavior) towards that objective. While we acknowledge that the reasons for (and against) entrepreneurial action are context-specific, we will not be addressing such variables or their influence here. Instead we posit that, despite important differences in the various contexts in which the same entrepreneurial person may operate over time, her personal logic can be applied again and again, though with adaptations appropriate to contextual influences.

The Know Why provides the self-understanding and decision to do the What and the How, despite differences in context. In our conceptualization, Know Why has three parts. The first part is the mental process specific and internal to the individual, in which the individual examines and assesses herself relative to her own entrepreneurial situation. The second part is the mental conclusion drawn as a result of the process. The third part is the external communication of the mental conclusions. While many successful entrepreneurs seem to proceed through this process unconsciously, likely guided by knowledge structures such as expert scripts based on both prior knowledge and experience (Baron & Henry, 2006; Mitchell, 2005; Mitchell & Chesteen, 1995), we will here describe a pedagogical model for teaching people how to become conscious of their mental process of knowing why.

Part One: the internal mental process. The mental process of knowing why involves cycles of thinking and feeling, where thinking (i.e., cognition) is understood as intellectual processing, and feeling (i.e., affect) is understood as emotional processing. Thinking and feeling do not occur independent of one another. In fact, research has argued that thinking shapes feeling and feeling shapes thinking (Baron, 2008).

Much has been written regarding that the way in which entrepreneurs think typically focuses on the sizing up of the opportunity. In our typology, this type of thinking is part of Know What and How. Clearly, knowing why one is pursuing entrepreneurial action requires one to assess the task and environmental requirements, constraints, and resources in the situation.

But what is arguably more important to entrepreneurial action is how the entrepreneur translates a specific opportunity assessment into a more personal decision about its merits and challenges “for me.” Here, we use “thinking” to refer to both this specific cognitive task, along with the more generic version of “why am I pursuing an entrepreneurial career?” We suspect that it is at this stage that thinking turns into feeling and probably back again.

Following the work of Krueger and others (Krueger, 2007; Mitchell et al., 2007), we believe that this type of thinking about oneself relative to the entrepreneurial situation rests on deep personal beliefs, values, and motives. We are referring here to more fundamental factors than what is typically addressed in the motivation literature. Such fundamental motives and values might include for example: wanting to test ones’ own abilities, believing there is substantial money to be made, wanting to have autonomy, ensuring a decent living, proving one’s worth, or making an impact on society .

For example, one entrepreneur we know, pressed to answer “Why” he had pursued the start-up of a company that developed software for the trucking industry, responded after some stages of inquiry by saying that ultimately he had wanted to demonstrate that “nerds can do worthwhile things in the world.” In another example, a group of nascent entrepreneurs working on a bioscience-based venture were discussing the value basis of the venture, leading one student to say that she was much less motivated to work on a venture that was strictly profit oriented compared to a venture that had a primary purpose of improving health care and quality of life, i.e. a moral value.

As these two examples indicate, in an entrepreneurial educational context, the purpose is sometimes discovered in conversation with critical others, such that the personal logic was self-evident to the individual once they had been asked a purpose oriented question: why are you doing this, or do you want to do what you are doing? But we propose that, more typically in entrepreneurial contexts, both the process and outcome of Know Why remain internal to the individual, unobserved and must be translated into observable action to be recognized and acted upon by others.

Being able to answer both questions of specific new venture creation and more general pursuit of entrepreneurial activity requires one to do this kind of matching of self to the specific and general situation of new venture creation. Thus it requires at least a tacit assessment of what will be needed to accomplish objectives, ranging from the need to do more market research, to project and meet funding needs, or even to delegate more to others. The environment evaluation may include consideration of what market, technological or regulatory/policy conditions or trends might help or hinder one's own progress in relation to the personal strengths, weaknesses, etc. For example, in the case of a consultant's industry report, market share information might be considered relative to the one's own skill in sales. As Sarasvathy (2008; 2001) has suggested, it also includes identification of available resources with added consideration of one's personal capability to access additional resources through paths stemming from initially identified resources. These considerations can be based on one's own opinion as well as any external influences which may impact the entrepreneurial situation, such as the opinion of others, societal norms and biases, various incentives and disincentives established through policy, economic factors, etc. Of course, this phase of the mental process of arriving at the Know Why that is fraught with bias and emotion.

With regard to emotion or feeling, one may feel confident, afraid, defensive, excited, exhilarated, worried, inadequate, etc. We believe, following the work on self-monitoring (Markus & Kitayama, 1991) that people who can think about these emotional reactions to the self-assessment, are likelier to overcome the negative feelings by balancing them with other data on the self in order to arrive at a conclusion of entrepreneurial intention. This comparison of self to situation, in our view, contributes to self-efficacy. It is also a form of internal legitimization, whereby the individual becomes persuaded of his/her own capability to meet the challenges posed by the opportunity identified.

The culminating phase of mental processing as we see it is sensemaking in which the individual organizes the different assessments, considerations, and reflects on both his own thinking and feeling to imagine a potential future despite the uncertainty of the given situation or the entrepreneurial situation more generally. Interpreting and organizing thoughts and feelings 'makes sense' of one's purpose for starting or persisting with entrepreneurial action. We theorize that this whole process involves an iterative process of internal reflection and internal dialogue (thinking about feeling, feeling about thinking) that produces self-efficacy.

Part Two: the internal mental outcome. The second part of Know Why is the outcome of the mental processing. This can be understood as the personal logic for action or the personal decision resulting from the reasoning utilized in the mental processing. As indicated above, the personal logic accounts for one's underlying and enduring motives, values, and beliefs in an entrepreneurial scenario, both specific and general. It also includes the set of interpretations that sensemaking produced. For example, the vision of the created future, possible to realize once one has proceeded through the iterative process of internal reflection and dialogue that produces self-efficacy.

The outcome of the mental processing can also be seen as self-legitimization. In effect, it is the internal voicing of both self-efficacy and commitment, i.e., essentially it amounts to telling oneself: "I want or intend to do this, I can do this, I am the right person to do this". We see it as the entrepreneurial purpose, as compared to the content and process of doing the entrepreneurial work.

Part Three: the external communication. The third part of Know Why is interpersonal and linked to behavior. It is the articulation of the personal logic and decisions, and the communication of the personal reasoning which supports the logic and decisions. At its most essential, this amounts to documenting, saying out loud to others or enacting what one has said to oneself: "I want or intend to do this, I can do this, I am the right person to do this". Of course, not every entrepreneur articulates this personal conviction aloud. But this is typically a critical step for nascent entrepreneurs, small business owners pursuing growth opportunities or indeed any entrepreneurial person who is seeing resources or collaborators. This behavior seeks to translate self-efficacy into external legitimacy.

A PEDAGOGICAL APPROACH TO DEVELOPING KNOW HOW AND WHY

Each of our institutions has received substantial external acclaim for the work we are doing to develop entrepreneurial capability. One is repeatedly rated by prominent business periodicals as being in the top five schools in its country educating entrepreneurs; the other has received numerous distinctions including being identified as its country's leading institution for doing the same. Much has been published about the way we each approach achieving these objectives: (eleven references deleted to preserve blind review). Due to our success, our educational programs are regularly visited by other institutions interested in learning about the design and delivery of the pedagogy used. We share information about our pedagogical objective, program design, and curriculum. We do our best to answer fully the question, yet when these conversations end, we feel like we have failed to communicate the essence of what we are doing. Driven by this feeling, we have come to see that we must go beyond the explicit educational design and delivery of our programs to excavate the implicit commonalities of what we are doing. In the next section, we share our "findings". Table 1 depicts the explicit and implicit in our approach.

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Insert Table 1 about here

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Design (Creating an Entrepreneurial World)

The general framework of the programs mirrors the general knowledge for conducting any business, with more entrepreneurial-specific knowledge more fully addressed in the second year of the programs (both are two-year, masters-level educational programs). Thus, courses such as Strategy, Finance, Marketing, Operations, and Leadership are delivered in the first year, but organized to follow the lifecycle of an entrepreneurial firm: opportunity identification and development, design and management of the delivery system, growth and change. Consistent with other action-based pedagogies, this approach allows business competencies and functional skills to be integrated into innovations, products, ventures and market offerings.

At both of our institutions, this integration is simulated in the first year, but actual venture creation occurs in the second year. For example, several of our first year assignments ask students to assess a business situation and make a business-level decision that reconciles recommendations from both a purely marketing analysis and a purely financial analysis. These functional skill-sets are defined relative to the general activities of the start-up process. Skills are integrated back into the larger, more complex picture, in order to develop understanding around the impact of contextual issues. The education is intended to illustrate that most often there is not 'one' answer; that responses often 'depend' on situational circumstances that influence what advice is given and/or what decision can/should be taken. The explicit design thus presents functional concepts, tools and techniques on a "just-in-time" basis facilitating the processes of problem solving, opportunity development, decision making and action planning. In this way, both the What and the generic How of entrepreneurial action are taught.

Alongside this program and curriculum design, an administrative system has been explicitly designed to control and regulate the entrepreneurially process to ensure that learning objectives are reached. The first step to ensure educational objectives is to communicate the learning process as early as possible. This includes the information communicated as part of admissions, so that students can self-select to a program that they feel 'fits' them, but also the admissions process can select based on criteria, such as self-awareness, motivation and perseverance, etc. The educations admit diverse sets students, with different goals, philosophies and values. This diversity includes not only different educational backgrounds (and thus likely different learning styles), but also gender and cultural differences as well. Students are placed in (multiple) teams to learn together how to listen, speak, and integrate diverse perspectives into a reasonable, coherent analysis and plan for action. Part of the purpose of both the functional integration and the demographic integration is to demonstrate the importance of developing argumentation and reconciling differences among the ideas and opinions presented.

The most typical format of our classes is discussion of the specific entrepreneurial topic – the What. This format emphasizes the importance of contributing: class participation is required, but must be participation that is thought through and built upon the preparation material, and also rationalized in the classroom. Added to this is an emphasis on being able to propose and support a point of view, communicated in a way that was well formulated.

Faculty are chosen for both their content expertise, but also for their ability and willingness to engage with students both inside and outside of the classroom. They are intended to facilitate dialogues which develop: broad and specific knowledge, ability to see how these connect, and the individual capability to reorganize this knowledge to develop ways to offer value to particular markets, arenas, etc.

The educations have attempted to pioneer ways to evaluate learning outcomes that are not easy to assess with traditional approaches, such as written examinations. Our assessment of most learning is based on the application of skills and "reflection in action". This necessitates a grading system that emphasizes the value of broad learning over deep, and the recognition that in most business contexts and especially entrepreneurial ones, 'good enough' is a more useful rubric than 'perfect' or 'complete'.

Our design also includes non-graded mechanisms that provide critical links between learning objectives and venture activities, such as: advisory meetings where outsiders reflect upon how students prepare and execute their business activities, while students test their ability to communicate strategic direction of the venture to a board; alumni interaction, meetings for peer to peer learning and sharing of best practice across ventures in process; and development talks in which group dynamics, venture dynamics, learning, well-being and other challenges put forward by either the students or by the educator are focused upon. These talks are non-graded in order to provide a safe and open forum (the level of openness determine by the students and student teams themselves), for discussing and dealing with issues facing them.

The stress and frustration with the demands of this entrepreneurial education format require a pressure valve for students. In each program, we have administrative staff who provide private sounding boards for individual students as well as teams. We also have elected student representatives who share student sentiment as a whole with these administrative staff. This design, explicit and implicit, is our pedagogical What and some of our How.

The delivery section below presents our approach to the pedagogical How and Why.

Delivery

This section is organized by three phases (action, sensemaking, and communicating the personalization) in the delivery of our entrepreneurial program. These phases are repeated in the same sequence throughout the programs, as the students put into practice the content of entrepreneurship (the Whats). The reader will note overlap between the design presented above and the action section of delivery. It is not possible to completely extricate the What and the How because, in the pedagogy for delivering knowledge *for*, the what and the how of entrepreneurship are intermingled. While we are teaching them How in an action-based program, we are teaching them the What. But below, we refer to specific How presented through required action.

Action. This education is intended to give the entrepreneurial student the opportunity to "test the water" – to go through real-life entrepreneurial and business activities in order to learn by doing. Here with our specific assignments, we require them to do the work of an entrepreneur. For example, they may be required to develop a marketing plan for the product or service they have developed, or they may be asked to develop an elevator pitch to attract funding for this same product or service or they may be assigned to develop projected cash flows for the new entity.

Beyond a few parameters (e.g., "a three-minute pitch," "a 10-page powerpoint deck," etc.), we deliberately leave the specifics of these assignments vague in terms of our expectations. We do this to simulate the entrepreneurial world with its uncertainties, ambiguities, and risks -- for two purposes. First, we do it this way to give them practice in operating in such places; second, and more importantly, this approach causes them to create their own paths as well as their own ends. We believe that this helps them develop their own How and Why. Like Sarasvathy's (2008) effectuation process, they tend to start with 'who am

I?' and 'what do I know or have that I can use to accomplish this task?' They use their own answers to shape a process that works for them, developing approaches to these tasks that they can execute with their skill-set and other capabilities and that fits their own motives and values.

Consider the following example: Jennifer considers her assignment to create and deliver an elevator pitch for her idea about a non-profit company that will provide the infrastructure and marketing to link customers, retail stores, and social organizations to transform the change from a bill paid by the customer into a credit to be used by the social organization to purchase much needed supplies from the retailer. Taking stock of her resources, Jennifer knows she lacks the software development skills needed to realize her vision, as well as the capital to pay for these, so she will have to create a pitch that persuades her audience that this is viable despite these shortcomings. Because she can't even say, at this point, where these resources will come from, she will have to draw on her passion for this goal and her ability to create both pictures and words that ignite a similar passion in her audience. Her powerpoint presentation and speech are unlike any one else's, but she wins the competition among her classmates and in the final presentation also wins faculty mentors and the support of funding agencies who will help her acquire or at least borrow the other resources she lacks. Jennifer has acted to accomplish the entrepreneurial task by fitting a generic process of opportunity identification and development to her own values, motives and capabilities. She has developed a creative approach and learned how to be resourceful.

Two other details about this pedagogical process are worth mentioning before we leave Jennifer. There were two rounds of presentation of her pitch: the first one was made to her classmates and professor. The second round was made to external professionals, who were present as coaches but also as possible strategic partners or funders. After each round, Jennifer got feedback on her presentation, the first from internal advisors motivated by wanting to encourage and see Jennifer succeed; the second from objective assessors, motivated mostly by the goal of helping worthy candidates succeed.

This curriculum, the action assignments, and the activities associated with it, including extracurricular activities, are acknowledged to be too much for any single student to take in. We tell them we know it is “like drinking from a firehose” or “like a smorgasbord” with much too much to eat. Upon excavating our implicit intent here, we see that we do this to allow the students to find and use what matters most to them. We do it to let them apply their own values, motives, and capabilities to make this determination because this allows them to personalize the What and How and develop their Why.

Taken as a whole, this pedagogical approach resembles teaching novice swimmers to learn to swim in the sea. They are taken to, and told to dive into, the deep water with other ‘animals’ in the ‘ecosystem’; but there are lifeguards on duty. They get relevant experience in a new and surprising environment and are left to independently match their physical capabilities, learned strokes and their breathing to the demands of that environment. But, someone is there to watch over so they do not drown.

Sensemaking. If the action phase is akin to plunging into the deep water, the sensemaking phase is akin to being pulled out of that water. Our approach pulls the students out of those experiences of entrepreneurial action into a reflective space. In this space, they are assigned to make sense of their actions and their experience. By design, this sensemaking occurs both internally as an unobservable mental process of reflection and externally as an observable dialogue with others.

The process starts with a specific assignment like a reflection report. Here the student is asked to think about her experience, including what she did, how she did it, how she felt about the experience and what she has learned as a result. Often this type of assignment includes a requirement for discussion about these reflections with teammates or another classmate, along with a report of the learning from these dialogues. In one of our programs, there is also a requirement for each student to meet once with a faculty coach one on one to discuss these reflections, and each team working together to develop a new venture is required to have group development talks with faculty coaches. Beyond these required parts of the curriculum, the team-based format of our two programs makes it likely that there will also be extra-curricular discussions of these reflections with close associates who have shared the same experience. The cultural norm of student-centric learning at each of our programs makes it likely that there will also be extra-curricular reflective conversations between students and faculty members.

The sensemaking phase turns the student into the "reflective practitioner" (Schön, 1983). She observes her own actions, thought processes, and emotional reactions and is expected to consider what those tell her about herself. She is asked to evaluate herself relative to the task and to discuss what she has learned from both the experience and the reflection. In articulating these reflections, she engages in dialogue which provides new input to her learning.

This dialogue, based on reflection, creates the stimulus to examine one's values, motives, strengths and weaknesses relative to the entrepreneurial action.

One important and unusual aspect of our pedagogies is that in each of the above faculty-student talk activities, as well as the extracurricular conversations, we are deliberately flexible about the time, space, focus and language chosen by the students for such talks. For example, one of our students noted after one such talk, that a recent experience from a trade fair had helped him refine the insights he had brought to the talk and to integrate the faculty feedback into his new understanding of how he operated. We respond to student initiatives and alter our terms and allow them to use their own BECAUSE we see this as their taking control of their own development, taking responsibility to reshape the situation so that it fits who they are; which is exactly our pedagogical aim. That is, our aim is to facilitate their developing their WHY and HOW, developing their own unique personal logic for entrepreneurial action.

Communication of Personalization. As we have discussed earlier, Know How has to be made specific to the situation and to the person enacting it. That is, it must be personalized to be effectively utilized in an entrepreneurial endeavor. Know Why is another aspect of that personalization. Acting, sensemaking and personalizing are part of a whole for the student. The described activities and experiences inside or outside the classroom facilitate the students' shaping of their Know How and development of their Know Why. Over time, they slowly personalize their learning. They identify their strengths and learn what they can intuitively rely on to help them manage the entrepreneurial task and apply in other settings. Through action observed, they see strengths in others that they have not recognized consciously or unconsciously in themselves.

To facilitate and guide their development of Know Why and to ensure that this happens, we ask for observable evidence of it. Of course, it is not easy to define what that knowledge should be because it is so specific to the individual. What we do in this communication of personalization phase is to ask for articulation of the reflection and sensemaking process as well as its outcome. That is, we have a variety of assignments that require the description of the cognitive and emotional experiences of the entrepreneurial action phase and of the resulting state of self-knowledge. This assignment helps them evaluate their motives, values, beliefs and capabilities.

DISCUSSION

We have identified here explicit and implicit commonalities across the knowledge developed in our two programs. Despite operating in different contexts and producing different types of ventures[1], both programs dedicate a significant portion of the educational period to development of foundational knowledge, the generic skill-set necessary for venture creation. The foundational knowledge is delivered sequentially to mirror the natural stages of venture development.

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[1] One of the programs is more broadly oriented, with ventures created spanning from food products, design-based firms, and services, to clean technologies, finance systems and IT-based start-ups. The other program is more technically oriented, building upon advanced materials and bio-science based discoveries/inventions.

In parallel, both programs also immediately engage the students in simulated ventures with the objective of developing knowledge in how the foundational knowledge can be applied. Even though the action basis of the learning at this stage is simulated, it allows for experiential learning by the students which can be disclosed and discussed with peers and faculty. In this way, the reasoning development of the know why is initiated through an 'enterprise approach' (Gibb, 1996), in a space which is still significantly regulated by the educational design.

One potential contribution of this 'safer' period, prior to the real-life venture creation approach (Ollila & Williams Middleton, 2011) of the final part of the educational period, is that the semi-controlled impact on experiential learning may increase the self-efficacy of the student, as the down side of the risk or failure is somewhat limited. For example, at this point, the student does not have an equity or ownership stake in the venture, and, as the primary objective at this point is strictly learning (as compared to parallel creation of potential future employment), and thus the acceptable loss is perceived as manageable.

Both programs also communicate a 'cultural norm' that mistakes are simply a mechanism for learning, and that making a mistake does not carry a high penalty. This situation changes significantly when they enter the real-venture in the second year, even though there is still an element of 'buffer' because they can play the dual role of 'student and entrepreneur' (using either title when beneficial). But the decision making stake in the second year is higher because it is based more deeply upon values and often within a less defined timeframe.

The Know Why

We have proposed that the Know Why consists of the personal reasoning and resulting logic expressed through communication. This logic is a function of one's reasoning, assumptions, argumentation, etc. as these relates to one's own values and beliefs, and as this relates to one's intended objectives, actions (the what) and means or method for effectively carrying out their objectives (the how). The communication is therefore an important part of legitimacy building relative to key constituents, around or associated to the entrepreneurial action to be undertaken. We consider that the entrepreneur may be reasoning even though she is not entirely aware herself of her own intentions or of the apparent action to be taken.

Another similarity across both programs is the level of investment required to develop the know why, both from the student and the faculty, and at the same time the challenge to see (or be self-aware) of the unseen personalized logic development. Both programs are challenged with meeting the high frustration level of the students as they are dealing with uncertainty and ambiguity. This can be intensified by the lack of definition around 'what' the personalization is 'supposed' to be, because it is unique to the individual and at the same time, this logic can only be discussed, jointly reflected upon or even assessed when it has been communicated. This lends to frustration associated with the 'I will know it when I see it' explanation (both for the student and from the faculty). This can seem unbalanced if the student is challenged with communicating their logic (as compared to developing it).

This points to the act of navigating from internal to observable knowledge, and the differentiated knowledge involved. While it may seem like a simple step from the internal mental outcome of part two of Know Why to the articulation of part three of Know Why, there can be multiple challenges associated with translation. Individuals may struggle to match their internal language with terminology readily accepted or understood or legitimated by external actors. As communication often involves not only content but also format, design, style, etc. there may be additional challenges in organizing meaning in a way that is externally intelligible and persuasive. The amount of information to be communicated also factors into delivery. Depending upon the format of communication – written, verbal, non-verbal – the individual may be required to not only reproduce the mental outcome, but also an account of factors or steps of the mental process.

We are identifying and refining a pedagogical approach for developing the Know Why, which is a part of the required knowledge *for* entrepreneurship. It is also a form of knowledge for that is specific to the internal motivation of the individual and is thus considered critical to the individual acting and persisting in her realization of an opportunity. The knowledge *for* entrepreneurship also incorporates knowledge *about* entrepreneurship, as the content of work is integrated with learning how to execute on work related tasks, and reflection/learning about how to do it in the way unique to the situation, and unique to the person(ality).

Know Why is likely to be a form of knowledge that is constantly being developed and revised, at least on an unconscious level if not on a conscious one. On the conscious level, we believe the overlap between Know How and Know Why is a point at which the entrepreneur expresses her personal logic to her stakeholders, expresses her self-efficacy and legitimates herself in the role of entrepreneur. Thus the Know Why leads to behavior which is Know How.

Challenges for Educators Facilitating Know How and Know Why

The pedagogy that develops the What of entrepreneurship faces its own set of challenges, not the least being the question of its impact on entrepreneurial intention and behavior. Students who learn *about* entrepreneurship do not necessarily proceed into entrepreneurial careers, or if they do, they may quickly discover a world that they are not prepared for and/or do not prefer to be in. The pedagogical approach we have presented here faces a different set of challenges, at both the faculty and the institutional levels.

In traditional educational approaches, the educator is the transmitter of knowledge, and the students the receivers. Delivery is a linear connection between two sets of individuals. The role of a faculty member is to organize and present the knowledge to the student. While some struggle to enact this role effectively, the range of transmission possibilities is rather narrow; teaching includes: program and curricular design, along with creating syllabi, assignments, and evaluation. Facilitating includes coaching, feedback, and dialogue. In an action-based approach, learning is facilitated through multiple arenas and from multiple actors. Faculty must play the dual roles of educator and facilitator, managing cycles of transmitting, advising, and facilitating knowledge development that, at times can seem contradictory, to both the student and to the teacher. The 'educator' becomes a 'facilitator' by providing access to and guiding use of resources in order to enable students to act more independently and take responsibility for their own development and strategic understanding. Skill in the latter role is not commonly developed in faculty and the cognitive and emotional demands of a facilitation role are not often discussed. Balancing the two is a challenge acknowledged by those doing this work but not in our literature about educating entrepreneurs.

The action-based approach that facilitates entrepreneurial Know Why, along with the dual role of faculty in such programs, also creates a challenge related to the rights and responsibilities of both teacher and student. There will be as many learning experiences as there are students, but it is not manageable for faculty to facilitate to the degree we might wish to encourage growth or to fit these to a common measurement standard. We must make compromises and so must the students. They must work with us to find the appropriate boundary for responsibility for their learning. Leading students to this recognition is not easy, painless or quick. But it is part of the stuff of developing the Know Why. In a future paper, we will elaborate on these teaching challenges and provide some of the ways we have developed for meeting them.

A related challenge for faculty in such pedagogies is the assessment responsibility. As faculty, we often see learning that we believe is critical for the individual, but it is not easy to define what that knowledge is, because it is so specific to the individual. Often, we cannot evaluate whether or not it has been developed until it is communicated or demonstrated to us. Even then, we can observe to what extent the knowledge developed is convincingly articulated (this is how we judge it to be valid or legitimate), which is different from observing its being created.

It has no doubt become obvious in our discussion above that this set of teaching challenges lead to a set of institutional challenges as well. To make the point succinctly, this type of education is costly. It is time consuming, emotionally demanding of faculty and staff. To deliver it requires a commitment to investment. This is turn requires difficult and conflict-potential debates about resource allocation both within the institutions and society as well.

This pedagogy is also institutionally risky. Because developing the Know Why has not been an explicit part of our educational purposes in the field, the approach we advocate here has not been a readily recognized form of the education of entrepreneurs. Even if this situation changes, the return on investment is normally expecting within a finite timeframes and according to pre-determined milestones. The Know Why may not be measurable, and the personal logic is not necessarily measurable. At this point, all we know is that what we can assess whether or not the person has communicated their Know Why in a way that is convincing.

The final institutional challenge we perceive, as insiders, is the risk of refining our unique and successful pedagogy to deliver more of the explicit knowledge of what and how in a cost-effective manner without sacrificing the implicit. Change is evitable, and the future of all higher education looks far less predictable than the past. Social pressures to do more with less are valid considerations. We worry that Knowing Why is at risk of being seen and treated as a luxury we can't afford, whereas it may just be the most critical ingredient to creating more entrepreneurial societies.

CONCLUSION

In this paper, we have identified an important distinction between knowledge *about* the phenomenon of entrepreneurship and knowledge *for* the practice of new venture creation. This distinction is commonly understood and addressed in pedagogical research but has been given almost no attention in the mainstream entrepreneurship literature.

There are specific and important outcomes from learning *for* and *through* new venture creation which have been obscured and unacknowledged by the prevalent focus on explicit program design, curriculum, pedagogy and assessment. Self-efficacy comes from development of capability. Capability development can be facilitated by making explicit the implicit learning generated from experiencing the entrepreneurial process. The learning gained by the student extends beyond the intended teaching objective and beyond the explicitly communicated the learning objectives. All entrepreneurship programs have an explicit design and explicit learning objectives. Most of these are directed at teaching the Know What and How of entrepreneurship. The traditional approach has delivered knowledge *about* the what and the how. Action-based approaches typically focus on developing knowledge *about* by putting students into the process. This develops their specific Know How to some degree, as they begin to tailor the generic process to their own abilities and motives. Often this entails some exposure to the entrepreneurial world of uncertainty, ambiguity, and evolving contextual demands. Such approaches also tacitly create the opportunity for students to develop some part of the Know Why. We have proposed here, however, that a pedagogical approach that is deliberately (though this intention may be implicit as it has been for us) designed to develop the Know Why provides a learning experience for entrepreneurial students that may lead more predictably to the development of entrepreneurial capability, intention and action.

This paper has focused on two specific institutions and shared the results of an effort to excavate the implicit in our action-based approaches to educating entrepreneurs. In seeking out the 'implicit', the study is highly dependent upon the embeddedness of the researchers in order to observe the human interaction within these educational environments. This approach has enabled us to capture the in-depth dynamics and tacit culturally shared understandings likely to be unobservable or indiscernible by outsiders (Brannick & Coghlan, 2007; Coghlan, 2007). Such an approach, of course, subjects us to insider bias and may limit the generalizabilty of the "findings." However, as the purpose of the paper is to explore the implicit learning stemming from the educations, only an insider perspective allows access to information otherwise overlooked.

We suggest that self-efficacy is achieved by students that have gone through action-based education in which experiential learning, complemented with space for reflection and dialogue, is facilitated. Entrepreneurial capability is evidenced through alumni self-perception (as communicated through surveys) and independently determined employment position. Explication of implicit learning and teaching processes which expand beyond the 'what' and 'when' of the entrepreneurial process, to the 'how' and 'why', illustrates the impact of knowledge gained from integrated experiential learning supported by reflective learning towards developing entrepreneurial self-efficacy.

Finally, this paper has not presented an empirical test of these ideas. Nevertheless, we hope our approach will stimulate other researchers and entrepreneurship instructors to develop and test their own pedagogical approaches to developing the Know Why and thus increasing entrepreneurial capability.

Figure 1. Know How and Why for Entrepreneurial Personalization

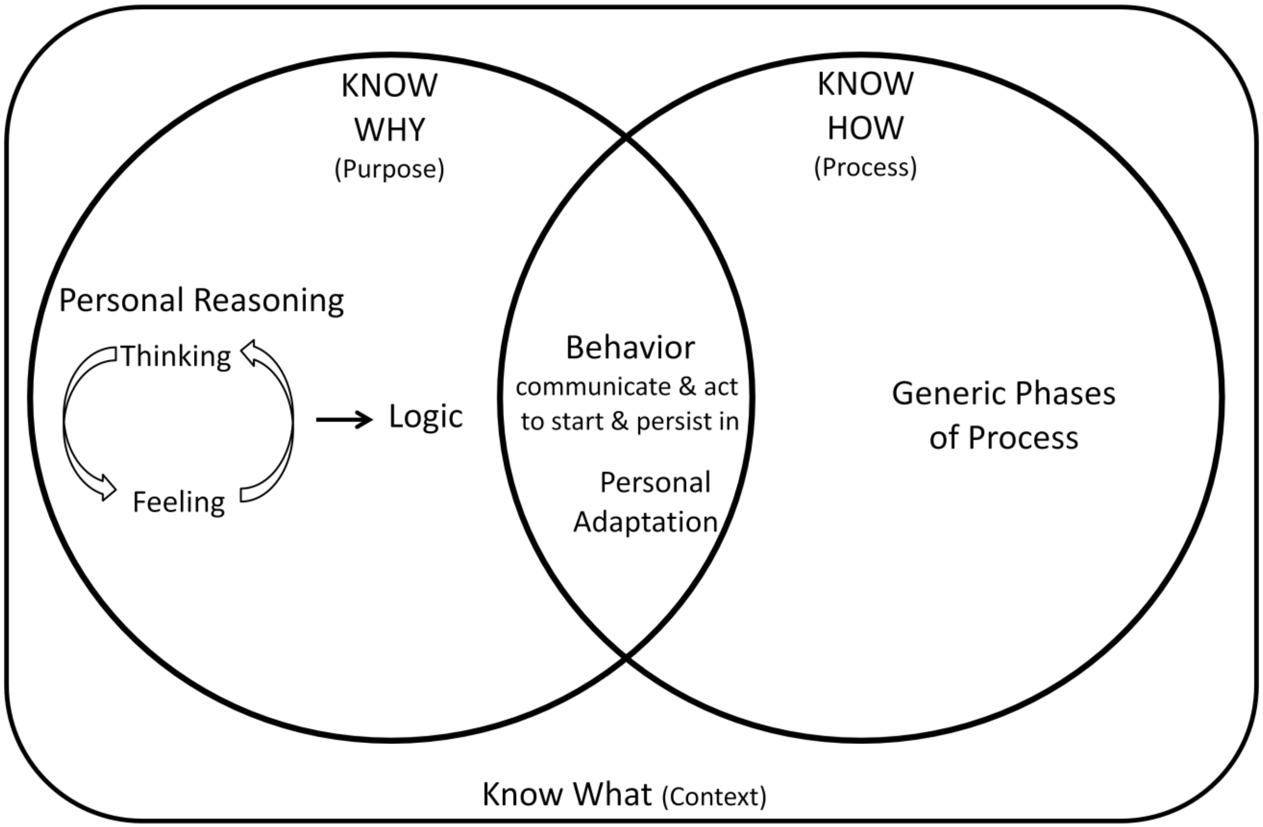

Table 1. A Pedagogical Approach for Facilitating Knowledge for Entrepreneurial Action

<table>
<tr><th colspan="2">PEDAGOGICAL CATEGORIES</th><th>EXPLICIT
What & How</th><th>IMPLICIT
How & Why</th></tr>
<tr><td colspan="2">Design</td><td>• Courses consistent with PSED and other programs
• Structure focused on life cycle of a firm with concepts, methodologies, and techniques integrated into business activities & decisions (either real or simulated)
• More general business foundation in year 1, more entrepreneurial content and process in year 2
• Administrative processes recruit and select students with entrepreneurial learning goals;
• A diverse student body organized into learning/action teams
• Interactive class discussion format
• Grading system uses professional categories rather than academic grades</td><td>• Interactive discussion format of classes requires students to develop and articulate a point of view on the topic
• Faculty selected for content expertise as well as their ability to balance teaching & facilitating roles
• Grading categories and bands signal “good enough”
• Administrative staff provide a pressure valve for student stress and frustration with demands of this entrepreneurial education format</td></tr>
<tr><td rowspan="3">Delivery</td><td>Action</td><td>An overabundance of content, assignments and activities that include: opportunity identification, marketing plan, projecting cash flows, consulting to local companies, making business pitches to outsiders, attending external events, etc.</td><td>Firehose/smorgasbord of content, and action assignments allows students to take in what fits their own values and motives.</td></tr>
<tr><td>Sense-making</td><td>Reflection Assignments</td><td>• Requiring students to examine their own actions, thoughts, and emotions causes them to develop their own reasoning for entrepreneurial action – developing the Know Why, self-efficacy and internal sense of their legitimacy in this role
• Flexibility of language, format etc of this assignment causes the student to be creative and guided by her own values and motives</td></tr>
<tr><td>Commun-ication</td><td>• Reflection Submissions
• Individual Development Talks
• Group Development Talks</td><td>• Requiring students to articulate their reasoning and their personal logic for entrepreneurial action in writing and conversation causes them to develop their reasoning to be more persuasive and thus to articulate their self-efficacy and develop external legitimacy in this role
• Flexible time, location, etc. allows the personalization of knowledge</td></tr>
</table>

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