CONTINGENCY BUSINESS PLANNING FOR ENTREPRENEURSHIP EDUCATION

Despite the ubiquity of business planning education in entrepreneurship, there is little evidence that planning leads to success. Following a discussion of the history of entrepreneurial business planning, the contingency model is introduced. As conceptualized, it utilizes Piaget’s concept of equilibration providing cognitive tools and flexibility in accommodating unanticipated environmental changes.

Education for Entrepreneurship: The Normative Approach

Entrepreneurship courses are taught at nearly every Association to Advance Collegiate Schools of Business (AACSB) accredited institution, at over 1400 postsecondary schools, and enjoy considerable world-wide growth (Katz, 2003). One of the most ubiquitous components of these courses consists of teaching students how to write a business plan, some of which are entered into competitions (Ames, 1989; Hindle, 1997; Kahrs, 1995; Maitland, 1996). Both product and process are considered to be very important, and universities appear to pride themselves on winning business plan contests nearly as much as fielding successful athletic teams. Despite widespread popularity, the pedagogical goals of business planning education remain poorly understood (Castrogiovanni, 1996). The enthusiasm for teaching business plans most likely originates in the strategic planning literature, where it is said to eliminate haphazard guesswork, and assist in the interpretation of data necessary for the maintenance of organizational and environmental alignment (Armstrong, 1982).

A business plan may be defined as a written document that describes the current state and the presupposed future of an organization. Evidence suggests that business schools teach business planning, because plans ostensibly assist entrepreneurs and nascent entrepreneurs as they engage in highly complex and uncertain activities (Ames, 1989; Burns, 1990; Kahrs, 1995; Rich & Gumpert, 1985). As frequently taught in business schools, business plans consist of 20 to 40+ page documents outlining a proposed new product or service, the organizational and financial strategies to be employed, marketing, production and management activities, and an examination of the competitive and environmental constraints and resources. Students typically work in groups devising these plans, and present them either in the classroom or to outside judges in order to demonstrate the quality of the plan and the idea, and their ability to integrate material across a broad array of business school subjects.

Obviously, there were successful businesses, start-ups and entrepreneurs long before the notion of business plans firmly took hold. The historical genesis of the contemporary business plan is most probably rooted in the long-term planning carried out to turn-around large firms (Fayol, 1988), as well as that conducted by large corporations, such as the Ford Motor Company (Ewing, 1956). Drucker (1959) wrote one of the first articles on long range planning utilizing an
entrepreneurial approach, where he attempted to define long-range planning as the organized process of making entrepreneurial decisions. Drucker’s framework for business planning gained additional currency with Halford (1968) and Webster & Ellis (1976). Several influential texts were written in the 80’s (e.g. Ames, 1989; Fry & Stoner, 1985; McKenna & Oritt, 1981; Rich & Gumpert, 1985; Shuman, Shaw, & Sussman, 1985; Timmons, 1980; West, 1988; Hisrich & Peters, 1989). Common to these books and articles were that they focused on new or small firms, they presented arguments for and against business plans, and they promoted a structure of anywhere from 13 to 200 essential points that the entrepreneur should cover when he/she produces a business plan. These points covered every day operational activities including attempts to forecast demand, as well as to provide an analytical and strategic approach (Robinson, 1979). Competitions followed shortly afterwards. Management-consulting firms such as Ernst & Young (Siegel, Ford & Bornstein, 1993) promoted business planning through sponsored competitions and their own published material. In 1984 Moot Corp began one of the first business planning competitions in the world (Moot Corp, 2003). The Moot model spread, and by 1989 competitions were conducted at leading U.S. universities including Harvard, Wharton, Carnegie Mellon, Michigan, and Purdue.

Given the considerable resources dedicated to teaching this activity, students who have learned to plan should demonstrate increased mastery, knowledge, and comprehension that would assist them in the process of starting a new firm. Assumptions, generally untested, are that business plans assist individuals in the nascent firm to make better decisions, or that they help with the nascent organization’s performance. Surprisingly, the limited research conducted so far evaluating the utility of business plans in entrepreneurial environments has failed to produce clear findings (Stone & Brush, 1996). One study found that only 28% of a sample of Inc. 500 firms had completed a formal classic business plan, and only 4% conducted a systematic search (Bhidé, 2000). Bhidé points out how short the planning process actually is – in one study 63% of Inc500 firms took only a few months to plan, and only 9% took more than a year (Bhidé, 2000:55). Another study of nascent firms showed no discernable impact after two years (Honig and Karlsson, 2004). Despite a feeble empirical record, business plan education continues to be taken for granted as an educational good.

Business plans may also be seen as the manifestation of the activity to collect and summarize relevant information. In this capacity they should increase efficiency, through the reduction of uncertainty regarding possible outcomes, as well as reduce the probability of bad choices being made at every step of the organizing process (Hax & Majluf, 1984). However, these assumptions have limited and often contrasting empirical support. Most previous research on this subject examines how business plans influence organizational profitability. Some of these studies found a positive relationship between planning and profitability in terms of growth and performance (Bracker, Keats, & Pearson, 1998; Schwenk & Shraeder, 1993). Other studies found a negative, or lack of relationship, between business plans and profitability (Boyd, 1991; Robinson, 1979; Robinson & Pearce, 1984).

Virtual universal popularity, despite mixed empirical data, suggests that the business plan and business planning education are more deeply rooted in ritual than in efficiency (Meyer & Rowan, 1977), particularly in the field of entrepreneurship. Planning activity is supported from numerous sources, and incorporates many facets of the contemporary business landscape. For example, banks, venture capitalists, and angel investors frequently demand the completion of a business plan before actually making investments. Informal discussions frequently indicate that the business plan is either developed after actors make a decision to invest, or is not a critical or significant factor in making financial investment (Bhidé, 1984). Honig and Karlsson (2004) conducted an empirical analysis utilizing institutional theory (DiMaggio & Powell, 1983; Oliver,
to explain the ubiquity of the business plan, promoted by educational, governmental, nongovernmental, and industrial fields. They found that elements of coercive, mimetic, and normative isomorphism influenced nascent entrepreneurs to produce business plans.

Business planning is so legitimized that the moment someone publicly announces their intention to start their own business, friends, family, bankers, and investors begin asking for their business plan. Preparing a business plan produces an aura of formality and conviction often required for an individual to be taken seriously in their pursuit of the creation of a new organization. A business plan is meant to be the first step toward a specific process widely known as entrepreneurship, but unlike the activity of entrepreneurship, focuses primarily on ideas as opposed to actions.

Thus, business planning for new entrepreneurs seems to have taken on ideological elements. It is as though a new business idea or intention without an accompanying plan is either unviable, or doomed to failure, a consequence of the lack of commitment on the part of the entrepreneur(s). Ideological and socially normative behavior of this type may lead to superstitious learning, whereby unrelated activities are associated with successful outcomes (Skinner, 1953; Herriott, Levinthal & March, 1985).

In considering entrepreneurship education, the pedagogical implications of business plans are paramount and should be of concern to many educators in the field. Educators like the business plan model because it provides them with a specific project oriented output that assists with student evaluation, as well as helping to provide focus and structure in a field that is, by definition, without conventional borders. Note, however, that although the business plan format may be expedient, there is little or no conclusive proof that it helps students to learn the requisite aspects of the field, or that it is of any benefit should they themselves eventually decide to become entrepreneurs. Further, once a plan is written, it may psychologically limit the framework of options available to an organization, as well as being outdated due to a constantly changing environment. The contemporary model of entrepreneurship business planning education, with the business plan occupying a central position, is depicted in Figure 1.
Instruction on how to write an Entrepreneurial Business Plan

Entrepreneur completes a business plan

Entrepreneur creates a new organization (firm, etc…)

Method:
Solutions based on convergent thinking

Outcomes:
Analytical tools (cognitive factors)
Contemporary business planning is taught as a linear process, by which budding and nascent entrepreneurs are expected to learn the necessary analytical tools and steps, produce a high quality plan, and only afterwards begin the activities involved in starting their ventures. Critics argue that planning is irrelevant and constraining, resulting in the limitation of the range of activities and creative responses to environmental changes (Mintzberg, 1987). Mintzberg has developed this critique, maintaining that the contemporary MBA focuses too much on analytical decision making. He advocates pedagogical devices that improve the situational, collaborative, and global problem solving capabilities of contemporary managers (Mintzberg & Gosling, 2002).

From a theoretical perspective, Mintzberg’s call suggests the concept of equilibration as stated by Piaget (1950). Piaget, trained as a biologist, first became interested in why children fail to answer questions correctly, and concluded that logic is incrementally learned (Messerly, 1996; Gardner, 1991). For Piaget, intelligence and learning take place in evolutionary stages, called structural evolution, resulting in adult cognition. Equilibration is how Piaget describes our attempt to create a balance between the environment and existing circumstances. While we respond to the world according to our assimilation (analytical tools), unique experiences in life require accommodation (minor changes in our cognitive structures). Our intellect develops as we attempt to achieve a balance between ourselves and the environment, with unique situations bridged by changing mental structures to reflect new experiences. Piaget’s intellectual equilibrium is not static, but prepares the individual for the next subject of disequilibrium. Thus, while a university student would presumably be bored by a lesson in how to count to 10, a session on derivatives may provide a progressive challenge leading to intellectual development.

We return to Piaget’s theory in the next section when discussing models of entrepreneurship learning. I proceed to discuss current educational theory and methods regarding business planning for entrepreneurship training, followed by the introduction of two alternative models incorporating aspects of the assimilation and accommodation processes, as conceptualized by Piaget. I conclude with a general discussion of entrepreneurship education.

The Theory Behind Business Planning Education

Despite the ubiquity of business plans and business planning in university education, there are few formal theoretical models and scant research data to support the activity. Although there is little conclusive evidence to prove that a diffusion of the planning perspective from strategy to entrepreneurship occurred, casual observation, including cross-field publication records, suggest that many scholars of entrepreneurship were originally trained in strategy, and are likely to have carried with them to entrepreneurship their perspectives on the importance of planning. Two major theoretical views of Strategic long-range planning contrast the synoptic, or highly rational proactive process of goal setting, monitoring, and evaluation; with incremental processes that are less structured and rational (Fredrickson & Mitchell, 1984). Advocates of formal planning reside in the synoptic camp, cognizant that the business environment may be one of the most critical elements of the effective implementation of any business plan. Uncertainty varies considerably from environment to environment, market to market (Aldrich, 1979, 1999). When uncertainty is greatest, plans may actually constrain the ability of organizations to adapt, a finding supported by a number of studies (Fredrickson & Mitchell, 1984; Fredrickson & Acquinto, 1989). The empirically supported perspective that dynamic environments are less suitable to strategic planning has important implications for educators interested in start-up planning. In many cases, new firms must enter highly dynamic unstructured new markets with new or
radically altered products. Planning may present a liability to such firms by constraining their willingness to adapt to new conditions.

Strategic theory asserts that there are two advantages resulting from the planning process: content and process (Weir, Kochhar, LeBeau & Edgeley, 2000). Content includes the choices, plans and actions of a strategy, while process refers to the creation and analysis of strategy, as well as the organizational implementation. The content of any strategic plan consists of the method of obtaining sustained competitive advantage. In manufacturing, this mainly consists of identifying performance objectives and organizational expertise based on cost, quality, complexity, and available resources. In the marketing arena, for example, a SWOT analysis is frequently used to identify competitive advantage through either segmentation or identification of an effective marketing mix (Weir et al., 2000).

The results of empirical studies testing theoretical relationships between strategic planning and outcomes for existing businesses tend to be inconclusive, with some research identifying the utility of long-range planning in organizations (Andersen, 2000; Wood & LaForge, 1979; Karger & Malik, 1975), others failing to identify positive outcomes (Sapp & Seiler, 1981; Whitehead & Gup, 1985; Grinyer & Norburn, 1975), and still others conditional on the relative stability of the industrial environment under study (Powell, 1992; Fredrickson & Mitchell, 1984). Many of these studies have been faulted for methodological weaknesses. For instance, it is very difficult to prove causality, which typically assumes that firms that plan better are more successful. An alternative view is that more successful firms have more resources available to spend on activities such as strategic planning. Other criticisms include a difficulty in identifying appropriate outcomes, subjectivity regarding assessment of what constitutes strategic planning, lack of commonality according to factors such as size, industry, and product, and general methodological weaknesses (Greenley, 1986). One approach to adjudication regarding these mixed findings has been to examine the range of studies through meta-analysis. One early meta-study failed to draw any conclusions from the existing empirical literature (Gordon, 1986), although more recent meta-analysis suggests there may be some positive relationships between strategic planning and performance (Miller & Cardinal, 1994). Miller & Cardinal’s meta-analysis found planning to be positively related to profitability, but of particular note was that the relationships were only observed when planning was defined as not requiring written documentation. As they state: “if an archival source of performance data is used, planning is defined as standardized and formalized planning, a low-quality assessment strategy is used, and the environments are only moderately turbulent, the correlation falls to approximately zero” (Miller & Cardinal, 1994:1661). Thus, even for pre-existing firms, it appears that overly formalized planning fails to universally provide a significant advantage, and is most useful in a specific subset of environments.

**An Experiential Approach Toward the Teaching of Entrepreneurship**

Much of what entrepreneurs do is the product of tacit knowledge, also referred to as knowledge by doing (Polyani, 1967). Because of the nature of tacit knowledge, it is most often acquired through learning by experience. Educators can address the gap between formal explicit knowledge and tacit knowledge by incorporating experiential, also known as informal education, into the curriculum. Informal education can be defined as “the life-long process by which every person acquired and accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment – at home, at work, at play” (Coombs, 1985:24). Informal education is how individuals develop practical skills both inside and outside the formal educational curricula. One way of incorporating informal education into the curricula is to utilize
action learning (Revans, 1978) which sees learning as a social and organizational process. The action learning process has also been addressed at the organizational level to characterize the learning organization (Leitch, Harrison, Burgoyne, & Blantern, 1996).

Entrepreneurship, like military strategy (Van Creveld, 1985), suggests the need for entrepreneurs to avoid focusing their efforts on the production and evaluation of systematic detailed plans, and instead to develop the necessary skills to re-evaluate, adapt and revise activities in a resourceful manner to suit new environmental contingencies. Rather than pursuing a causal model of planned behavior, entrepreneurial activities may best be described as having an experimental focus that utilizes environmental feedback (Sarasvathy, 2001). Outcomes are frequently impossible to predict, and represent decisions that are impossible to anticipate. Pedagogical techniques should therefore be developed that focus on applied hands-on activities, resulting in experiential learning, as opposed to the teaching of general principles.

Traditional pedagogy is frequently in contrast to the needs of entrepreneurial education. Academic learning typically consists of presenting information in a consistent and predictable manner. We allow students to review, digest, and repeat previously dictated solutions to specific abstract problems, and to demonstrate competence during examinations. While these techniques are well adapted for teaching foundation material, such as providing tools that assist students in analytical decision making, this method of learning is ill suited to the complex and dynamic problems typically faced by contemporary managers (Mintzberg & Gosling, 2002).

Beyond the well discussed forces of globalization and the knowledge economy, firms themselves are quite heterogeneous regarding the suitability of their activities to conventional planning (Perrow, 1967). Entrepreneurs also differ in their learning requirements with managers, while empirical research has shown that considerably different learning styles are pursued by entrepreneurs versus intrapreneurs (Honig, 2001). The distinction between managerial, intrapreneurial, and entrepreneurial activities and learning requirements has not been made in contemporary business planning education. Books and teaching modules are designed to conclude with a standardized formatted business plan, complete with multiple chapters covering a range of analyses in a formal structure. Such structured closed ended pedagogical activities may be particularly inappropriate for entrepreneurial activities, where the very nature of the problem, as well as the necessary analytical tools employed, change radically as the business, the market, and the product emerge.

Entrepreneurs, as well as intrapreneurs, may be thought of as experts, much in the way chess masters, radiologists, physicists or judges are considered experts. They are required to solve problems that are ill structured and open ended. Research examining the nature of expert knowledge suggests that through familiarity and experience, experts are in a position to approach problems from a broader, qualitative perspective, maximizing their efficiency when they move on to quantitative activities (Glaser & Chi, 1988). Experts, as well as entrepreneurs, gain critical experience by engaging in their professional activities, but this is of little help regarding the design of University curricula. We may, however, consider utilizing simulations and exercises that help prepare students for the unpredictable nature of entrepreneurship, resulting in the generation of empathy and experiential learning (Hindle & Angehrn, 1998).
FIGURE 2

An Experiential Model of Entrepreneurship Education

Figure two shows the incorporation of experiential trial and error (action learning) in the learning experience. Experts build their knowledge structure on a base of trial and error, culminating in the kind of experience that allows them to approach the problem with a more efficient paradigm (Glaser & Chi, 1988). One example of such a pedagogical device is to teach students to be prepared for novelty and surprise, because this is the environment they will be facing. Sitkin (1996) refers to this as training by inoculation. Individuals learn by experiencing small failures in order to build up resilience in the face of future organizational conditions. From Piaget’s standpoint, learning through failure provides the necessary incentive to produce a situation of disequilibrium. The resulting imbalance motivates the student to learn and invoke a
new concept introduced to avoid future failure. Thus, these failures may be organized as part of
team building exercises, whereby only following a substantial number of failures is sufficient
material unveiled in order to solve the simulated problem (Robinson, 1996). Examples of this
approach include the use of simulators for the training of ultra-sound radiologists, simulated
patients for emergency and general medical training, and airplane simulators for the training of
pilots. Each of these simulated environments encourages students to both experience and learn
from failure, in a real-time simulation mode.

The impact of entrepreneurial simulations is still poorly understood, and represents a
significant future research activity. From the perspective of Piaget’s theory of cognitive
development, the model, while useful, is somewhat weak regarding the dynamic process resulting
in dialectical synthesis. For an individual to maintain motivation during the simulation, the
activity must be both believable and continuously adaptable. It is the latter aspect of simulation
design that my impact the long term ability of students to obtain maximum learning. As the
external (to the classroom) environment changes, the simulation should also change to reflect the
individual’s cognitive expectations. Otherwise, the activities may seem senseless and boring.
Few simulations are sufficiently malleable to track the constant changes of the business world.

Hindle (1998) introduced a theory to guide in the development, selection, and evaluation
of entrepreneurship simulation activities. Adequate suspension of belief is necessary to gain “buy
in” by the participant in order to maximize the simulated experience. Simulations must be
credible, relevant and illustrative (Hindle, 1998). Credibility of the simulation activity depends, in
part, on unambiguous communication. Participants, guides, and software must all communicate
immediate and clear situational assessments. Multi-media simulations, such as the Harvard
simulation “Launching a High-Risk Business” (Sahlman & Roberts, 1999), can help students
prepare for failure, to learn from it, and to adapt their future activities in a more cogent and
efficient manner. The topic was well reviewed in a series of articles in Simulation and Gaming,
necessary to explore both ends of the equation – how much students learn, and separately,
whether what they learn is relevant, or not.

In sum, the experiential model is designed to help students learn to tolerate risk, to learn
from failure, and to develop some of the managerial skills necessary to motivate and lead a team
through unknown territory. Although they are designed to prepare students for ambiguity,
simulations are still based on convergent thinking, in that the solutions must be pre-designed into
the activity. Note, however, that students are both capable and likely to introduce new factors and
alternative solutions not pre-programmed into the simulation, particularly vis-à-vis their social
and bargaining position as students, individuals, and actors in the simulation (Low,
Venkataraman, & Srivatsan, 1994). Unfortunately, unanticipated solutions and extra-
environmental negotiations (such as, “I agree to give you X in this assignment, if you agree to
give me Y in the next assignment”) are exceptionally difficult to monitor, and may detract from
the learning experience. Furthermore, simulation learning may not provide the necessary specific
skills and techniques to assist entrepreneurs as they navigate the decision tree of their future
businesses – it cannot help them solve problems as they encounter them in the real world, and
may not reflect current environmental changes and conditions.

A Contingency Approach Toward Teaching Entrepreneurship

A third approach to teaching and preparing students for entrepreneurial activities consists of
providing tools that assist in the navigation and development of paths characterized with
uncertainty and unpredictability. Entrepreneurial activities can be characterized as requiring an
open learning environment. There are few answers in the entrepreneurial process, and not many best practices, only opportunities and exploitation (Shane & Venkatamaran, 1999). Entrepreneurial activities have many features of open systems, whereby there may be more variables than can be predicted, understood, or controlled (Thompson, 1967). Rather than accumulating structured formal knowledge, the sustained competitive advantage maintained by entrepreneurs may best be characterized as a component of tacit, rather than explicit knowledge (Polyani, 1967). Tacit knowledge, based on experience, is very difficult to codify or decompose into rule-based language; indeed, this is one of the sources of its strategic advantage, particularly with the advent of new information technologies (Teece, 1980). Thus, educational activities should be developed that interrelate in an open ended, dialectic manner, supporting the development of tacit knowledge and the ability to adapt and modify a plan, rather than the ability to preconceive and detail one. While it may be useful for students to learn each step necessary to complete a business plan, there is no requirement that it be done in a linear or task specific integrated manner. What is required is the development of capabilities to manage knowledge assets in a dynamic manner, in support of the learning theory promoted by Piaget, and following action learning precepts. Figure 3 depicts a proposed contingency model for teaching business planning.
FIGURE 3
A Contingency Model of Business Planning Education

Method: Solutions based on divergent thinking

START
Should opportunity be pursued?

Yes: Step #1
Select one of the modules
Ex: Marketing research market A

Yes: Bi-pass Module X
Immediately pursue opportunity

Continue as before?

Modify and adapt?

Abandon

Evaluation
Evaluate Progress

No
Abandon

Yes

Step #2 Select next module
Return to START

Outcomes:
Self Confidence (personal properties)
Risk Tolerance (motivation)
Leadership and Managerial Tools (cognitive factors)
Practical solutions to new problems (cognitive factors)
Organizational development tools (cognitive factors)
Evaluation tools (cognitive factors)

Select any module, proceeding thorough flowchart from START
marketing module A
production module B
development module D
financial module E
human resource module F

Abandon

Abandon

Abandon
In the contingency model of business planning introduced here, there are no direct linear relationships between the different phases consisting of opportunity recognition and exploitation. Rather than present a linear relationship based on information retrieval, analysis, and decision making, this model is designed as an open system that can be started from virtually any point in the entrepreneurial cycle. The individual simply selects modules, as necessary, and proceeds through an evaluation exercise. Modules may consist of any activities that appear relevant to the entrepreneurial practice. Five of the most common business plan elements are depicted in Figure 3, consisting of marketing, product development, production, financial planning, and human resource planning. There is latitude in the model to add or remove relevant components as necessary, as well as to repeat modules and to follow them in any sequence.

The contingency model makes extensive use of Piaget’s theory of equilibrium (1950). Equilibrium is actually a dynamic process, whereby the individual repeatedly and incrementally assimilates new knowledge, and applies this knowledge with increasing levels of sophistication and complexity. During each iteration, the individual, actively seeking interaction with the environment progressively satisfies that need. In particular, the individual is interested in exercising newly learned approaches. “To Piaget…the individual is most interested in that which is moderately novel. That is, interest is highest in that which is neither too familiar nor too novel to correspond to existing schemas” (McNally, 1973:11). In the contingency model presented here, students have an opportunity to dynamically and incrementally learn new approaches to entrepreneurship, and apply them as they make sense both in terms of novelty, appropriateness, and cognitive development. This model maintains that the business plan is a dynamic activity, as opposed to a summative activity. Following each iteration of new learning, students are expected to move the approach in their plan toward a position of disequilibrium, one that will be satisfied only when they successfully incorporate the new learning activity. In sum, the contingency model presents a learning structure that focuses on dialectical synthesis, as opposed to one based on the accumulation and application of static information and techniques.

Unlike the previous two models, students using the contingency planning model are encouraged to pursue divergent thinking (Getzels & Jackson, 1962). Convergent thinking assists students in obtaining a single precise answer, while divergent thinking encourages students to discover alternative solutions based on the same information (Sternberg & Lubart, 1999). Completing any and all of the modules provides a systematic method of collecting the necessary information to explore divergent thinking. It follows Piaget’s model of equilibration, by providing intellectual tools to access the environment, as well as accommodating cognitive changes necessary when new unanticipated experiences occur (Piaget, 1950).

In addition to promoting divergent thinking, there is no expectation that any or all modules be completed before beginning entrepreneurial activity. This is helpful in supporting entrepreneurs to act on the moment, maximizing opportunity, as opposed to waiting and deliberating with further analysis. Speed is one of the critical factors in providing competitive advantage to new entrepreneurs over larger existing firms. Rather than expecting a nascent entrepreneur to complete a range of activities, this model suggests that students learn, instead, how to master discrete evaluation models that are designed to encourage reflexive and creative thinking. Thus, instead of solving a particular problem, the modules are designed to identify what the problem might be (Runco, 1994).

More closely attuned to a method incorporating effectuation (Sarasvathy, 2001), the contingency model of business planning allows for a phased, cyclical approach, complete with feedback paths, at each critical stage of organizational development. There is no a-priori assumption that any exercise must occur before the organization is created, and there is no expectation that activities proceed through a sequential manner. Instead, the entrepreneur is freeto
select discreet modules, such as market analysis, marketing, production and development, financial planning, and human resource strategy, as they become necessary. Each package is autonomous, and does not rely on information provided by other modules, however, there are informational feedback loops in each module allowing for the incorporation of new knowledge based on current information available to the entrepreneur.

**Redesigning Business Planning Education**

Education is a surprisingly durable and inflexible social institution, not necessarily rooted in efficiency (Meyer & Rowan, 1977). There is little incentive, and so it is quite unlikely that many professors of entrepreneurship will suddenly remove the ubiquitous business plan from their syllabi. Teaching entrepreneurship students how to write a business plan is so firmly entrenched in our educational, financial, and social system, that it may persist in the face of any critical empirical data.

Perhaps one of the weakest aspects of existing models of business planning education is that, for the most part, they focus on idea convergence. Students are taught an ideal method of conveying or marketing their ideas, and encouraged to conform as closely as possible to this ideal. The process supports thinking “inside the box” as opposed to outside the box, and may serve to reduce rather than expand the range of activities and potential solutions pursued by nascent entrepreneurs.

Two proposed alternative models of teaching entrepreneurship were introduced in this article, each with a range of different properties and characteristics. Both utilize Piaget’s theory of equilibration, whereby the individual is believed to learn in moments of assimilation and accommodation, that iteratively increase in terms of complexity. The experiential model requires the development of new pedagogical aides that provide worthwhile simulations resulting in high quality learning experiences. The objective of these simulations is to advance beyond the analytical skill development in contemporary entrepreneurial education toward the promotion of self confidence and motivation, both the result of an increased tolerance for risk. Simulations are typically designed with a particular set of solutions, supporting convergent thinking. With careful attention to design, however, it may be possible to develop experimental models incorporating simulations that focus on idea divergence into the entrepreneurship curricula. For example, software might be designed to incorporate new solutions provided by players, via the game administrator. So, too, can a careful monitoring of the environment, in order to include current situations into the simulation decision tree. For example, as both new accidents, and new solutions to avoid accidents, are discovered by the Federal Aviation Authority, they are fed into pilot simulators for updated training routines.

The contingency model of entrepreneurial education represents a second alternative pedagogical perspective. Instead of insisting that students learn to package the components of a contemporary business plan at one point in time, this model suggests the promotion of new behaviors, as well as the development and utilization of new tools that exercise and enhance reflective, longitudinal analysis. The proposed model makes extensive use of Piaget’s concept of equilibration by providing the analytical tools as well as the experiential opportunity to combine problems and solutions dynamically with the environment. Because the contingency model allows for continual re-evaluation, as well as for iterative feedback opportunities, it is both dynamic and dialectic, resulting in a synthesis of assimilation and accommodation. Students are taught discrete modules that pertain to unique events contingent upon time and place. No
expectation is made that any or all modules are completed before start-up activities begin, and, unlike with simulations, there is no necessity to introduce elements and characteristics of the business environment ex ante. This more closely tracks the genuine business environment faced by entrepreneurs and nascent entrepreneurs, yielding increased believability and therefore a higher potential opportunity for intellectual development. It is particularly appropriate for environments that lack a sustained or static structure, such as that experienced by entrepreneurs who engage in new activities, or are highly subject to a barrage of changing resource factors in the marketplace. Thus, while certain business subjects can be reliably taught by relaxing one theoretical environmental constraint at a time (for example, finance), entrepreneurship is an integrative subject that virtually precludes this type of systematic and static and incremental knowledge building. For entrepreneurship education to be effective, it must adhere as closely as possible to the genuine business environment.

One obvious weakness of the contingency model is that it leaves the educator with an assessment quandary – he/she can no longer demand a completed written business plan at the end of a term, as is customarily required. Instead, the instructor will have to be content with completed modules that may or may not be related to each other, undoubtedly a more complex set of products to evaluate. Further, students will be faced with the uncomfortable fact that the tools and modules they are being taught may be inadequate for public consumption, and that they may need to complete a formal business plan to satisfy investors regardless. Both of these limitations suggest the need for specific research examining both the utility of the contingency model as a pedagogical device, as well as its currency in the competitive world of investment. Of course, not all problems faced by entrepreneurs require divergent thinking. Some, such as financial evaluations, require convergent thinking. Thus, a blend of models 2 and 3 may be most appropriate.

Much of contemporary entrepreneurship education is a-theoretical and largely unsupported by empirical evidence of its practical effects. Given the importance of entrepreneurial education in the academic and public sectors, and the increasing sums of money allocated for the various promotional activities, the need for careful pedagogical analysis and design is both immediate and critical. Entrepreneurship education requires a body of empirical literature all of its own. Rather than accepting, at face value, standardized activities and routines, we should begin examining our learning interventions in order to identify activities most suitable for those present and future entrepreneurs we hope to assist.

References


