



Learning Entrepreneurship Competencies: the Self-Directed Learning Approach

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Abstract. Individual level behavioral competency is one of the goals of entrepreneurship education in universities and colleges as well as other training venues. This paper focuses attention on the competencies of entrepreneurs to start and succeed in a new venture by presenting several models of competency. The paper then advocates an experiential and self-directed approach to competency development for adults. Self-direction involves student centrality in the design and execution of a learning project and asks faculty to assume more of a facilitator role. Self-directed learners have high degrees of autonomy, self-management, independence, and control over the course of learning. A particular method of self-direction, the use of self-assessment and a learning contract, is proposed. The paper concludes with a step by step approach for use of this methodology. An example of an entrepreneurial competency contact is provided.

Keywords: competency development, experiential learning, self-directed learning, learning contract

Education is an admirable thing, but it is well to remember from time to time that nothing worth knowing can be taught.

— *Oscar Wilde*

1. Introduction

A common view holds that learning about venture creation through lectures, reading texts and analyzing cases limits the creativity and lowers the risk of would-be entrepreneurs and fails to mimic the real world (Fiet, 2000a,b). Entrepreneurs and managers must find and define the problems to solve (they are not presented to the individual by a boss/teacher or job description/syllabus). This is particularly true for those who would create independent new ventures rather than create businesses for, or commercialize products and services of a parent company. However, both independent and corporate entrepreneurs must seek information from a variety of media and these media are not as easily found as the required text, a consultant's report on the market, or the focused research report due next week. Even the favored pedagogy of writing a business plan is limited to a well-understood and proscribed set of

analytic and pre-launch research skills. The process of starting a business goes beyond research, analysis and writing and encompasses a myriad of behaviors, which will be addressed later in this article.

This paper presents an alternative or more realistically, an ancillary approach to cases, business plans, and entrepreneurial role models in teaching entrepreneurship—the self-directed competency contract. Furthermore, the approach is grounded on applied theory as advocated by Fiet (2000a). Adult learners of all ages and levels of experience other than already successful entrepreneurs can benefit from adding this to traditional and formal curricula. This alternative builds on the literature on managerial, leadership, and entrepreneurship competencies and on literature related to adult self-directed learning. First the concept of competency is introduced and a set of models of entrepreneurial competency are presented. Then I address the particular situation of adult learning and the importance of experiential and self-directed learning. Finally, an educational method for learning (and teaching) entrepreneurial competencies is presented.

This paper does not attempt to report on the empirical data or models of how entrepreneurs learn and the way they translate their prior experiences into new ventures (Bailey, 1986; Lamont, 1987; Lessem, 1983; Reuber, Dyke & Fischer, 1990; Reuber & Fischer, 1999; Ulrich & Cole, 1987). It does build on the insight from this literature that entrepreneurs (like most adults) learn from experience and are active learners. Nor does this paper critically review or extend existing literature on entrepreneurial competencies and adult learning. Instead, it uses current understandings as a baseline for practitioner education.

2. Competencies

While competency in entrepreneurship is often associated with organization or firm-level performance (Mullins, 1996), as educators, we are most concerned with individual-level competency. That is, we attempt to help students become more skilled and motivated to start and succeed in new ventures. We assume that these individual level competencies can be combined and synergized, extending the model to group or team competencies.

Individual competency can be defined as an underlying characteristic of a person, which results in effective and/or superior performance in a job (Boyatzis, 1982, Spencer & Spencer, 1993). While entrepreneurs do not have “jobs” in the traditional sense where performance standards exist and influence selection, training, retention, and advancement decisions, they do have jobs in a more inclusive sense. That is, the entrepreneur’s enactment of roles and tasks are important to his or her personal and venture success (Bruderl & Presensendorfer, 1996; Heunks, 1998; Reid, 1999). The competencies of entrepreneurs for particular types of ventures and industries can be identified

using methodologies from management studies and organizational interventions (Boyatzis, 1998; Boyatzis, Cowen & Kolb, 1995). This methodology has also been successfully applied cross culturally to include developing economies, specifically Ecuador, Malawi and India (Spencer & Spencer, 1993) and provides an alternative and complementary development tool to establishing financial markets (Cooley & Smith, 1998). A keystone to competency identification is clarifying criterion, specifically what constitutes threshold and success levels of entrepreneurial competency?

2.1. Threshold and Success Competencies

Competencies can be categorized as “threshold” (what is necessary to do an adequate job) and “success” (what is necessary to do a job recognized by others as superior; Boyatzis, 1982). For entrepreneurship, threshold competencies are those necessary to successfully start a venture (organization creation or birth); effectiveness or success competencies are those necessary to variously start a surviving venture, a growth venture, a venture with high financial returns, and/or a venture that the entrepreneur enjoys (Bird, 1995). The criteria of success will influence the competencies identified.

The method of identifying threshold competencies is to objectively determine individuals in selected industries, regions, or other aggregations of interest who, having intention to start a new venture, have done so and those with the same intent who have not. Then one looks for individual and behavioral differences between the two groups. Competencies thus identified elaborate the model of organizational births from the labor market economic perspective (Storey, 1994). In essence threshold competency identification provides a finer grained and more individualistic set of constructs to human and social capital.

To determine the success competencies of entrepreneurs, the criterion of success must be chosen (e.g., survival, growth, identified by local media as successful, self-reported satisfaction, etc.). Then the researcher, educator, or consultant uses an objective determination of successes in an industry, region, or other aggregation to locate highly successful and less successful entrepreneurs on that criterion. A nomination procedure is often used in determining high and average performers in management (Boyatzis, 1998; Dreyfus & Bird, 1992) and has been used in studies of entrepreneurs in different cultures (McBer, 1983, 1986, Spencer & Spencer, 1993). Finally, various methods and measures (e.g., tests, interviews, observation) of competency and rigorous qualitative and statistical tools are used to compare high success and average success. This method allows us to build a model of individual behavioral success bounded by the criterion of success and the

sampling method for the population of interest. Again, this elaborates economic models of firm growth which are grounded on human and social capital (Storey, 1994).

This method has been used in building models of success competency in management (Boyatzis, 1998; Dreyfus & Bird, 1992) and cross culturally for entrepreneurs (McBer, 1986; Spencer & Spencer, 1993) but not for threshold levels of competency. Unfortunately, the McBer (also reported in Spencer & Spencer, 1993) study has not been replicated in developed economies or in the current globally competitive environment. However, from this study and other research we can infer some competencies that are important for starting and succeeding in new ventures. Although these models are not rigorously developed, they are presented in Tables 1-5 following further discussion of competency.

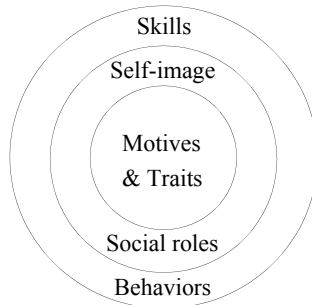
2.2. Competency Model

Competencies spring from three levels of the individual: 1) motives and traits, 2) social role and self-concept, and 3) behaviors, knowledge, and skills (Boyatzis, 1982; Spencer & Spencer, 1993). These layers of competency are diagrammed in Figure 1¹. “Competencies always include an intent, which is the motive or trait force that causes action toward an outcome. For example, knowledge and skill competencies invariably include a motive, trait or self-concept competency which provides the drive or ‘push’ for the knowledge or skill to be used” (Spencer & Spencer, 1993, p. 12). Each level of competency may vary in its impact on the disposition of the person to use the competency, reflected in the frequency with which the person applies the competency to the job as well as the degree to which the competency is applied across situations (Boyatzis, 1982). That is, entrepreneurs may use a particular competency more or less routinely in start up activities and may also bring this competency to their home life.

At the deepest level are motives and traits, which are largely unconscious and hard to accurately and objectively observe. Examples of these are extraversion, achievement motivation, tolerance of ambiguity, and drive. These are “personality” based (i.e., deep structure of the individual) and not changeable in the short term. See Figure 1.

1. It is often useful for students to see a conceptual framework like this as they begin to address competencies.

Figure 1: Competency Model



Next is the level of self-image and social roles. These are conscious intrapersonal and interpersonal perceptions, inferred from social behavior, and which can be changed with conscious intention over time by the individual. Examples include the self-concept of being an entrepreneur, a visionary, an opportunist or a deal-maker; self-confidence in undertaking those roles (if appropriate); and other self- and role concepts. Included here are the roles of entrepreneur as network user (Bruderl & Preisendorfer, 1998), innovator (Heunks, 1998), leader (Bird, 1989), and patriarch or matriarch of a family firm (Gersick, Davis, Hampton & Lansberg, 1997).

The most easily observed and changeable level of individual competency is that of skills, knowledge, or behaviors. Examples here include team building, computer programming, networking, financial analysis at a global level and using a bookkeeping software package, working a cash register, or making an oral presentation at a more particular level. Entrepreneurial behavior has been described by various authors (Bird, 1989; Gartner, 1985; Spencer & Spencer, 1993; Swayne & Tucker, 1973) and defines this level. With the right combination of practice, coaching, reinforcement, motivation, and intention, individuals can learn to behave in ways different from their initial levels of skill.

Competencies can be broad and general (e.g., generic knowledge, general intelligence, and sociability) but can be more usefully seen in specific domains of human life. "Fine muscle control, an interpersonal skill in orchestrating the work of a team, and the specialized knowledge of transistor circuitry are various types of competencies. Each pertains to a different domain or arena of human functioning" (Boyatzis, 1982, p. 25). The specific domains become more useful in predicting behavior and enabling success and thus more useful for educational efforts in entrepreneurship. For entrepreneurs, there are role-

specific domains (e.g., fund raising, selling, designing, and planning), industry-specific domains (e.g., knowledge of the state of art in semiconductor manufacture or knowledge of norms in the executive placement or the architectural woodworking industries), regional, national and international domains (e.g., knowledge of local laws, language, and culture), as well as stage of business development domains (e.g., start up, growth, maturity, harvest, and family business transition). Thus a student intending a new venture in international human biomedical arena would look for a model of the roles, relationships, and skills needed to successfully launch and succeed in this arena in the past decade. Alternatively, a student intending a new venture in gourmet food imports would look to a model of the competent entrepreneur in that arena.

Training and educational programs can affect both the behavioral/skill and social role/self-concept levels of individuals in the development of entrepreneurial competencies. For example, in a meta-analytic study Burke & Day (1986) showed significant change in behavior as a result of competency-based training. In-class role-plays, simulations, internships, consulting projects and other pedagogies aim at building skills in students in single class (from several days of training to 10-18 weeks in a university course). Changing self-concepts (e.g., self-confidence) and achieving role comfort builds on a more extensive experience set and requires a longer time frame. These levels of competencies can be impacted in the months or years of university-based education through exposure to role models, opportunities to self-assess, reflect, try new behaviors and obtain feedback on behavior (Boyatzis, et al., 1995).

3. The Competent Entrepreneur

The behavior of successful entrepreneurs has received considerable research attention (Bird, 1989, Chrisman, Bauerschmidt & Hofer, 1998, Herron, 1990; Hood & Young, 1993; Krueger, 2000, Mitton, 1986, Spencer & Spencer, 1993). However, the application of competency concepts has been somewhat more limited. Chandler & Jansen (1992) and Chandler & Hanks (1994) offered the first rigorous research papers on entrepreneurial competency. The first study surveyed 134 owners of Utah firms in manufacturing, restaurants, plumbing, rest homes, and security systems using 21 competencies for self-report. These are shown in Table 1. They found five competency clusters or factors: 1) human and conceptual, 2) ability to recognize opportunity, 3) drive, 4) technical-functional, and 5) political (Chandler & Jansen, 1992). The second study (Chandler & Hanks, 1994) surveyed 155 Pennsylvania manufacturing businesses using the same self-report measure of individual

competencies, which were categorized as entrepreneurial and managerial for this study. The study included self-report measures of perceived relative abundance of opportunity in the environment and the firm's resource-based competencies (e.g., expertise, low costs, and production quality). Results from the study demonstrated that competency was a more powerful explanation of firm performance than entrepreneur experience alone.

The Center for Creative Leadership (Eggers & Leahy, 1993) has used their survey of small business owners and CEOs to determine the ten leadership and management skills that explained most variance in self-reports. These are

Table 1: Chandler & Jensen (1992) Measures of Individual Competency

Human/conceptual competencies

Organize and Motivate people	<ul style="list-style-type: none"> • Delegate effectively • Keep organization running smoothly • Organizing and coordinating tasks • Supervise, influence, lead • Maximise results in resource allocation • Organize resources
Ability to recognize opportunity	<ul style="list-style-type: none"> • Perceive unmet consumer needs • Look for products of services that will provide real benefits for my customers • Identify goods and services people want • Seize high-quality business opportunities
Drive to see venture through to fruition	<ul style="list-style-type: none"> • Make venture work no matter what • Refuse to let venture fail • Make large personal sacrifices • Extremely strong internal drive
Technical/functional competence	<ul style="list-style-type: none"> • Expertise in technical or functional area • Expert at technical part of my work • Stay in area of expertise
Political competence	<ul style="list-style-type: none"> • Involve people with important resources • Venture team with complementary competencies • Enlist the support of key people

listed in Table 2. Likewise, Boyatzis, et al. (1995) name twelve core competencies of management also listed in Table 3. This list, while not focused on entrepreneurs, shows strong similarity to that produced by the Center of Creative Leadership and expands the level of detail for competency assessment.

A review of the literature on entrepreneurial behavior, personality, and relationships, shows that there are other competencies to entrepreneurial behavior than the lists above. Spencer & Spencer (1993) summarized the McBer studies of criterion based studies of entrepreneurs. Successful entrepreneurs in Malawi and India were higher than average entrepreneurs in

Table 2: Centre for Creative Leadership Entrepreneurial Skills

- Financial Management
- Communication, motivating others
- Vision, direction, focus
- Motivating self
- Planning and goal setting
- Marketing
- Relationship building
- Human resources
- Problem solving, decision making

Table 3: Kolb & Boyatzis Executive Skills

Leadership (e.g. selling ideas, oral presentations, inspiring and motivating)	Relationship (e.g. team player, communication with co-workers, customers, self-aware) Helping and delegating (e.g., establishing trust, being influenced by feelings of others, teaching/mentoring)
Perceiving, understanding and analyzing information	Adapting (e.g., understanding the reasons for a conflict or disagreement, innovating new solutions) Information gathering (e.g., being objective, using technical/computer information services) Information analysis (e.g., understanding business information, organizing and writing reports)
Analytic abilities	Planning (e.g., long range planning skills, seeing big picture, building conceptual models) Quantitative data analysis (e.g., using statistics to analyze data, financial analysis techniques, designing and conducting research projects) Technology management (e.g., working with computers, operating budgetary control systems)
Action or operational abilities	Goal setting and managing goals (e.g., setting performance goals, allocating resources) Taking action (e.g., meeting deadlines, working within constraints, supervising) Entrepreneurship (e.g., seeking and exploiting opportunities, making decisions under conditions of risk and uncertainty, taking responsibility and initiative)

competencies noted in Table 4.

The same study showed three factors of competency also noted in Table 4.

Table 4: Criterion Based Success Competencies (McBer Studies)

	Competencies that differentiate successful from average entrepreneurs
	Sees and acts on opportunities
	Persistence
	Information seeking
	Concern for high quality of work
	Commitment to work contract
	Systematic planning
	Self-confidence
	Use of influence strategies
	Factors emerging from competency assessments
Factor 1	Initiative
	Sees and acts on opportunities
	Concern for high quality of work
	Commitment to work contract
	Efficiency orientation
	Problem solving
	Self-confidence
	Monitoring
Factor 2	Concern for others' welfare
	Persistence
	Assertiveness
	Use of influence strategies
Factor 3	Systematic planning
	Persuasion

Bird (1995) summarized much of the literature at that time and with input from established entrepreneurship educators, proposed a working list of entrepreneurial competencies. Table 5 shows this list, edited to remove duplication with earlier lists.

While competencies have been identified from the literature, the lists in Tables 1-5 may not be exhaustive and may not be independent of each other. Current research suggests that other competencies may include activation of existing social networks and the creation of new social relationships (Bruderl & Preisendorfer (1998), complex decision making when many decisions are interrelated (Reid, 1999), the ability to personally and organizationally maintain both flexibility and control (Heunks, 1998) and the ability to learn from experience (which builds human and social capital; Cooley & Smith, 1998). More research on entrepreneurial competencies is needed to fully map what is needed to start a new venture (in particular industries and regions) and what is needed in these ventures to succeed.

The individual who recognizes her lack of competency and who chooses to develop entrepreneurial competencies by electing an entrepreneurial path in

university education or non-degree training is most likely predisposed to self-direction and active learning. These learning preferences, while not verified by rigorous research, are observed by most of those who teach entrepreneurship. These preferences are the fulcrum for the self-directed learning contract. Whether the student has achieved “majority,” “emancipation,” or another metric of maturity, I assume she or he is an adult and can learn in an adult fashion.

4. Self-Directed and Experiential Learning

The method used to “teach” competencies to adults has as its fundamental premise that only the learner can learn new knowledge, adopt a new role, and change his or her self-concept and behavior. Learning is self-directed. The role of the teacher/instructor is to provide conceptual frameworks, guidance, information, feedback, and motivation for developing new knowledge and behavior. The “pedagogy”² derives from a theory of adult learning (Candy, 1991; Kolb, 1984; Knowles, 1975; Long, 1990; Tennant & Pogson, 1995; Tough, 1979) which argues that adults learn best when they can anchor concepts to their own personal experience and can direct their own learning to issues, skills, and “practical intelligence” which they choose.

4.1. Experiential Learning

The experiential component of adult learning involves a cycle of action, experience, reflection, and abstraction as shown in Figure 2 (Kolb, 1984). This model of learning can “start” with any one of the steps and cycles continuously through them. An entrepreneurship student might begin with a concrete experience such as having worked for an entrepreneur, having been limited in or fired from prior employment, or seeing peers do well their ventures. In the stage of reflective observation the student would sit back from the experience and may self-assess and consider her possibilities of venturing and form the intention to learn how to start a business. The student would then want to learn what best practices or theories of success currently operate generally and in the specific domain of the intended enterprise. Finally, the student would propose an “active experiment” by writing a business plan, doing limited market

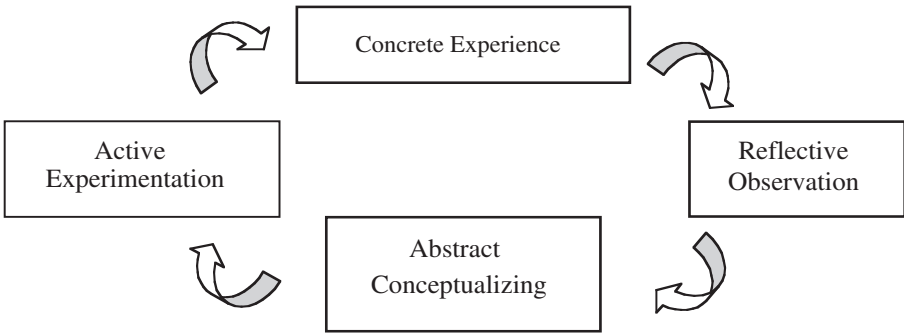
2. Pedagogy is defined as the art, science, or profession of teaching and derives from a Latin word for child. Andragogy has been proposed as the parallel concept for adults (Brookfield, 1986).

Table 5: A Working List of Entrepreneurial Competencies (Bird 1995 Review)

Threshold competencies with empirical support	<ul style="list-style-type: none"> Integrity Recognizing one's own limitations Expertise Information seeking
Success competencies with empirical support	<ul style="list-style-type: none"> Tolerance of ambiguity Need for control of material (financial) outcomes Achievement/task motivation Drive Creativity Design specific products or services Design the specific business organization Maneuver in the industry Motivate organization members Create and utilize networks Comprehensive, detailed planning Monitor the work of others Knowledge of finance/cash management Knowledge of engineering Knowledge of accounting Knowledge of marketing, and sales Leadership Oral communication Human relations skills
Theoretical and speculative competencies	<ul style="list-style-type: none"> Motive and trait level: <ul style="list-style-type: none"> Total commitment to their venture Need for control (other than financial) Utilitarian view Present-future time orientation Temporal/cognitive complexity Vigilance Intuition Flexibility Field independence Social role and self-concept level: <ul style="list-style-type: none"> Role negotiation Role transition flexibility See the big picture/strategic zoom lens Embrace competency of others Aware of business timing Recognize patterns in complex and shifting arrays of data Clear business goals Internal alignment of values, needs, and beliefs Manage role conflict Form emotionally positive instrumental relationships Manage the overlapping family and business systems Manage transitions in relationships Skill level: <ul style="list-style-type: none"> Team building and collaboration Experiential learning (learning from experience)

research based on her current resources (Sarasvathy, 2001), or actually starting the venture.

Figure 2: Experiential Learning Model



Those actions would generate feedback or the business would have concrete results that then would be “grist” for continued learning from the experience of business planning and starting a venture. This model of experiential learning applies not only to large sets of experience and behavior as outlined above, but shorter-term concrete experiences such as negotiating lease space and employment contracts or making oral presentations to skeptical and critical groups such as investors.

Alternatively, the cycle might begin with a classroom experience. The instructor might present the concept and practices of opportunity recognition or data on an industrial sector where entrepreneurs have recently flourished. The student might take those abstract concepts and experiment with writing a business plan for that sector and in presenting the business plan to the instructor, class, or other audience, gain encouragement for continued development of the business, ultimately leading to a launch.

The learning style of entrepreneurs has received limited research attention. One study using a nonstandardized measure operationalizing Kolb’s (1984) theory, found well-educated entrepreneurs favored abstract conceptualization over active experimentation (Bailey, 1986). Kolb himself (1984) reviewed several occupational studies that tended to show management students favoring concrete experience and active experimentation.

The greatest strength of this orientation lies in doing things, in carrying out plans and tasks, and in getting involved in new experiences. The adaptive emphasis of this orientation is on opportunity seeking, risk taking and action...best suited for those situations in which one must adapt oneself to changing immediate circumstances.

(Kolb, Osland & Rubin, 1995, p. 54)

There is some evidence that experiential methods have some advantages over more didactic methods of training adults. Burke and Day (1986) found this particularly true for behavioral modeling (observation, modeling and feedback to change behavior) which learners and trainers see as effective across situations.

Reflecting on the concepts of experiential and self-directed learning from my experience in the U.S., I see classes in business education and in entrepreneurship education attempting to be experiential. Most business educators attempt to provide practical knowledge and experience to attract students to their programs and provide employability as an outcome. However, our classroom methods are still anchored in assigned readings, lecture and case discussion. We attempt to make the classroom experiential by bringing case protagonists into the classroom, conducting simulations, using computer-assisted interactions, and assigning fieldwork projects. In the entrepreneurship arena we may assign students to consult to small businesses or require students to do the footwork of business plan research, writing, and presentation. Invoking distance learning or Internet interactive learning may not take us far from where tradition has brought us. Some institutions encourage or require internships in new ventures and formalize a mentoring relationship with successful entrepreneurs.

Finally, many U.S. and international business students arrive in entrepreneurship classes with entrepreneurship experience limited to vicarious observation of role models. Other than actually starting a business in the course of a 15-18 week semester or a 10-week quarter (which time frames are probably unrealistic) there is little more than the methods above to experientially teach entrepreneurial behavior.

4.2. Self-Directed Learning

The self-directed component of adult learning involves four inter-related phenomena: personal autonomy, self-management in learning, independent pursuit of learning, and learner-control of instruction (Candy, 1991). Autonomy refers to ability in setting goals and plans without pressure from others, freedom of choice in thought or action, personal judgment based on rational reflection, “will and the capacity fearlessly and resolutely to carry into practice” the plans independently conceived, self-mastery, and self-concept of being autonomous (Candy, 1991, p.109). Self-management of learning focuses learner autonomy on learning itself where self-awareness, self-reflection, curiosity, open-mindedness and active inquiry take the learner towards his own chosen goals. Independence of learning refers to lack of need for institutional support or affiliation and includes the learner’s relationships with mentors,

coaches and the like who foster increasing autonomy and independence of the learner. Learner control places decisions about “learning objectives, content, method sequence, place, and evaluation of learning outcomes” with the learner, not the teacher. (Candy, 1991, p. 242).

One core “technology” of self-directed learning is the learning contract (Brookfield, 1986). Knowles (1975) describes the contract in depth. His approach is to have student outline their learning objectives (e.g., “to enhance my self-concept as a self-directing person,”) and for each of these describe the learning resources and strategies to be used (e.g., “read Knowles, 1975”), the evidence of accomplishment (e.g., “creating a satisfying learning contract”), and the criteria and means of validating the evidence (e.g., “rating of the contract by two peers and a teacher as to degree of self-directedness it demonstrates”).

There has been considerable attention to the readiness for self-directed learning in corporate settings (Durr, Guglielmino & Guglielmino, 1994; Foucher & Tremblay, 1993; Piskurich, 1993; Welden & Denny, 1994). Note that readiness for this type of learning does not necessarily mean that individuals engage in any particular learning project nor that these efforts are efficacious. To date there is one study of the readiness for self-directed learning in entrepreneurs. Guglielmino & Klatt (1994) studied successful and growth oriented CEOs on the Inc. 500 list and found these executives score above the average American on a standard test for readiness³. They also found that these entrepreneurs scored higher than any other business samples to date. While this study was cross sectional and involved CEOs of already established businesses, it gives an indication of the potential efficacy for self-direction in nascent entrepreneurs. However, there have been no studies that focus on the particular value of learning contracts or self-direction for nascent entrepreneurs or university students in entrepreneurship classes.

Formal teaching environments like colleges and universities tend to adopt a teacher-focused approach to learning. However, increasingly faculty are turning from traditional roles of content provider (and evaluating students on retention and critical thinking about content) toward the role of facilitator. In this newer role, the faculty member has among her objectives the development of self-directed learners (Knowles, 1973). She evaluates less on retention of a body of knowledge and critique and more on the fulfillment of student’s own learning agenda.

The role of learning facilitator best reflects six principles of effective practice of the teaching-learning interaction (Brookfield, 1986). 1)

3. This measure, The Self-Directed Learning Readiness Scale has been shown to be a reliable and valid measure of love of learning, self-concept as an effective independent learner, tolerance of risk, ambiguity and complexity in learning, creativity, viewing learning as lifelong, initiative in learning, self-understanding and acceptance of responsibility for own learning.

Participation in the learning is voluntary. 2) Learner and facilitators respect each other's self-worth. 3) Learners and facilitators collaborate in setting objectives, determining methods, and establishing evaluation criteria. 4) Learning is action-oriented. 5) Facilitation fosters self-reflection in the learner (and facilitator). 6) Facilitation aims to empower self-directed adults.

Adult learning is best facilitated when learners are engaged as participants in the design of learning, when they are encouraged to be self-directed, when the educator functions as a facilitator rather than didactic instructor, when individual learners' needs and learning styles are taken into account, when a climate conducive to learning is established, when learners' past experiences are utilized in the classroom, and when learning activities are deemed to have some direct relevance or utility to the learner's circumstances.

(Brookfield, 1986, p. 37)

While university courses in entrepreneurship bring varying degrees of experience to the student, the case for self-direction is less heartening. First, few of us do a thorough job of helping students assess their current and desired competencies or learning style (Boyatzis et al., 1995), so we do not necessarily know their baselines or experiential framework. We do not necessarily know their goals and may or may not bend our curriculum to allow significant variance from our course or curriculum goals. We rarely ask our students to consciously engage in extensive self-reflection or to try risky new behaviors.

Many "core" entrepreneurship courses in American universities require students to write and present a business plan and often students (in teams limited to fellow classmates who may not be rationally chosen as partners) choose the business concepts to pursue. Even here there may be faculty-imposed constraints such as requiring plans for a business that will see revenues in excess of \$10 million in five years or a business in a particular technology arena. Our curricula are often proscribed, with required courses for "majors" or areas of concentration.

Furthermore, we professors most often choose the books students are to read, organize our semester into weekly assignments, construct exams, and assign written or oral presentations with often formalized criteria for evaluation. We choose the simulation and either choose or approve the task for Internet interactions to solve. Problems are presented and time frames for solving them given. There is often the illusion or reality of "right answers."

Most American and international students join in this conspiracy of faculty control of learning. Years of primary, secondary and baccalaureate education establish a habit of learning that is familiar and understood. In many cases the history of faculty-controlled learning is even greater for international students where culture and religion often sustain an orthodoxy and power distance (Kazeem, 1991). Students want to know exactly where the bar is set to get an "A" and attempt to follow the most efficient pathway to that goal. Where is the

self-direction here?

Some universities break the mold of traditional education, offering year-long integrated courses or providing dormitory incubator environments for nascent undergraduates. However, many American and international universities, colleges, and other training environments do not have the time, budget, or focused vision to move beyond traditional, distance-learning, and Internet interactive educational formats. What is proposed here, is a bridge between faculty-directed learning and self-directed learning, a bridge that can be experiential and competency building. The next section offers an instructor-focused format for applying a learning contract approach to teaching entrepreneurial competencies.

5. The Learning Contract

In the years of teaching entrepreneurship and particularly entrepreneurship behavior, I have evolved the following method for adult learners. It is a useful assignment within a class on entrepreneurship or leadership. The method proposed has six steps outlined below, with the rationale.

- 5.1. The instructor explains the concept of competency and discusses the various models of competency (e.g., the lists in Tables 1-5) available to the student. Videotapes of entrepreneurs can be used to help students see competencies in action. The students are then asked to develop their own comprehensive list of competencies of entrepreneurs by adding to and/or deleting from the lists of competencies provided. This list and rationale for the list can be submitted for review at this time or along with step 2 below.
 - 5.1.1 Letting students create their own list of competencies allows for greater self-direction and personal involvement. It also allows class readings, videos, guest speakers to be integrated into the process.
 - 5.1.2. While students may not cover all necessary competencies for their domain of interest, no one has yet articulated what the necessary and sufficient competencies are. The student's list, amended by consultation with a faculty facilitator, will take the student closer to her goal.
- 5.2. Students use their model and assess themselves against this. If their model of competencies is extensive, they pick 10 or more competencies they feel most important (possibly in consultation with the instructor)

and assess themselves against that list. They are asked to explain their strengths and weaknesses in each area, with concrete examples if possible.

5.2.1. A smaller list focuses the student and makes the assignment of reasonable scope.

5.2.2. Self-assessment is open to social desirability and other perceptual biases. This exercise could be done with external assessment (feedback from family, peers, coworkers, supervisors) that is also managed by the student.

5.2.3. Consultation with the instructor could be optional from both sides. If a student needs support or help, under the self-directed model, he asks for it. However, if the instructor feels strongly that the student is missing the mark, choosing only areas where they feel competent or avoiding areas of weakness, the instructor can confront the discrepancy in perceptions and negotiate a deeper, more challenging self-assessment. However, in self-direction, the student must experience free choice and not faculty-control.

5.3. Students then pick those areas where they are weakest and develop a learning plan or learning contract to develop those areas. For this part of the exercise, it is important that students be specific, concrete and apply a goal setting framework. They need to specify what exactly they will do, how often, under what circumstance, and by what date and to what criterion, if applicable. Some learning contracts require the performance be externally validated.

5.3.1. Some learning theorists and entrepreneurship advisors suggest that students develop their strengths and partner or hire others in areas where they are weak. The exercise can be done for strengths, if that approach is preferred.

5.4. The assessment and learning contract are turned in for review and the instructor provides feedback. In my experience, students often do not know how to set specific, behavioral, time-defined, verifiable goals.

5.4.1. I often have to coach the class in what kinds of behaviors they can try, but try to avoid creating narrow expectations as to what is possible.

5.4.2. The instructor can review the contract and suggest alternative methodologies for learning a particular competency. There are methods which are better for gaining knowledge and others for developing values and perceptions (Knowles, 1975). For

example, students seeking to be less risk averse may need encouragement to think creatively about areas where they feel greatest aversion and encouragement to set goals that cause just tolerable amounts of anxiety.

5.4.3. Examples of a self-assessment and contract are included in the Appendix 1.

5.5. This exercise can be done at the beginning of the term and a term-length time frame can be employed, although behavioral goals often take longer than the 9-14 weeks remaining in most academic terms. If done at the beginning of the term, a follow-up report is due at term's end.

5.5.1. The follow-up report is appended to the original assessment and contract. It specifies:

5.5.1.1. What the student did, what they learned from their experience, and how this relates to the competent entrepreneur.

5.5.1.2. What the student did not do, why they did not do what they contracted to do, what they learned from failing to do what they intended to do, and how this relates to the competent entrepreneur. I do not grade "down" for "failing to do" as long as there is insightful analysis as to why this occurred.

5.5.1.3. What they are going to do to improve these competencies over the next 6 - 24 months.

5.5.2. Impact of the "results"

5.5.2.1. Knowing that they can have an incomplete learning contract and still get a good grade allows the students to set lofty (and possibly unrealistic) goals for themselves.

5.5.2.2. "Failure to do" is important as it points to the student's priorities and commitment level.

5.5.2.3. Proposal for extended and continued learning pushes the envelope of the semester-confined learning process and mimics the action plan of many industrial training programs. It allows discussion of life-long learning and self-direction.

5.6. The exercise can also be done at the end of a class, with a timeline for action of 6-24 months (or longer). Obviously results are outside the

purview of the instructor. It is my belief (although I have no evidence) that going through the exercise of self-assessment and thinking about self-directed ways to expand one's skill set predisposes the individual to actually do the exercises planned.

From my years of using this method to teach entrepreneurship competencies to graduate students, I have found that students willingly and eagerly engage in the self-assessment aspects of the contract. Many have told me that they have not had an opportunity to be self-reflective since they joined the fast-paced, time-intense world of graduate business education. This seems to be even more the case for those who work full time. I have heard from faculty in other university cultures who claim that for their graduate business students self-reflection is considerably less valued.

My students have been a bit puzzled about the theory of self-directed learning as most of them have never been exposed to much outside the traditional lecture, case, critical thinking, examination methods of being taught and demonstrating learning. Once they see an example of a learning contract and get feedback, they become more comfortable with the idea. No student has returned to campus after graduation to tell me that self-direction helped them in their pursuit of entrepreneurship or whatever career they chose to pursue. Clearly follow up research is desirable.

As a teacher, I like this method. As Fiet (2000b) argues, traditional classrooms are boring to students. They are also boring to me. I use interaction and student self-direction as a way to tailor the course to individuals, to open the door to novel experiments by students, and add realism to the curriculum. Not only are the students "surprised" by the novelty of the exercise, but I am surprised (in a pleasant way) as well. While students are not learning entrepreneurship theory with this assignment as suggested by Fiet (2000a), they are learning and doing two theories of adult learning.

My students often identify themselves as risk adverse and say that most of the business education they receive is about risk avoidance and risk management. They seem to feel even more risk averse as they near graduation and wonder about the economic value of their degree in the marketplace. It comes as no surprise that they often wish to be more risk accepting as a way to be more entrepreneurial. Along with that, they often choose competencies such as self-confidence, opportunity recognition, oral presentation skill, negotiation, and ability to build and use social networks.

Where the greatest difficulty lies for some students is specifying creative yet realistic ways to build competencies short of starting their own business. For example, students wish to become less risk-averse and more risk-accepting (I remind them that entrepreneurs are rational risk-takers, not gamblers). I have found that each student's risk horizon is different. For one student it means meeting strangers (also part of networking). For another, risk means investing

their money in a particular stock. For another it means placing an advertisement in the local paper asking entrepreneurs to call him. Yet another might choose to try roller-blading. In each case, when the first draft of the contract is turned in, I challenge them to consider a higher or more “entrepreneurial” risk; to network in support a new venture business idea, to ask for other people’s money to invest. I discourage risk that is inappropriate.

In many cases, I make recommendations that students might not have considered. For example, if they are seeking to develop oral presentation skills for a business plan, I have recommended books to read or joining Toastmasters or another public speaking oriented organization. I have also recommended that they negotiate with faculty in other classes for an opportunity to make an oral presentation to the class.

It is useful to ask students to keep a journal or log of their efforts. They can be encouraged to keep details there (who, where, when, etc.) It is also a place for them to record their feelings and emotional reactions and resistance. This can then become a source document for their second assignment.

An example of a learning contract is provided in Table 6. This student did a reasonable (albeit short) effort to assess his strengths and weaknesses. This particular term I had suggested that they limit their efforts to 3-5 strengths and weaknesses. The student rewrote the contract to more closely have measurable goals. I considered the final effort a reasonable one with sufficient challenge for this particular student.

As to grading these assignments, I usually use an acceptable/unacceptable criterion and let all students work to achieve an acceptable level⁴. The contract itself is ancillary to the course. The final report, when used, I often grade with more criteria and this grade weighs more in calculating the final grade for the course. These criteria include a reasoned argument for what they learned from what they did or did not do, backed where appropriate, with evidence (e.g., names of people met, topics of discussion, follow up telephone conversations in the case of networking) or ways to verify the learning. The final report is also judged on thoroughness and linkage between the goals and the rest of the content of the course as well as quality of business writing.

4. The contract in Table 6 is acceptable.

Table 6: Self Assessment and Learning Contract Example

Self Assessment and Learning Contract Example

1. Self Assessment of Entrepreneurial Competencies

The following outline details several entrepreneurial competencies. These are divided based on whether I feel that the competency is a personal strength or weakness. These competencies were gathered from the texts, the competency assignment, as well as personal experience.

A. Entrepreneurial Competency Model

Strengths	Ability to focus on details, as well as the “big” picture Concern for high quality of work Ability to make decisions quickly, or with careful thought, and stick with them Recognize the importance of business relationships Risk accepting Broad, generalist outlook
Weaknesses	Sees opportunities, but doesn't always act on them/Not assertive enough Fear of failure or being disappointed in myself Lack of creativity or innovative ideas Poor delegation skills Temporal Tension – some difficulty in conceptualizing the future and how things may change or turn out

Although all characteristics of a successful entrepreneur are not listed, I have detailed those that I feel are my greatest strengths and greatest weaknesses. Those, which are not listed, are by no means insignificant in importance; I just felt that I possessed a relative competence in these other areas.

*Table 6: Self Assessment and Learning Contract Example**Self Assessment and Learning Contract Example*

- B. The following discussion goes into detail concerning those strengths or weaknesses from the list above which I consider to be most important. Following this discussion is a learning contract, which provides “exercises” to help develop those areas in which I am currently weak.

Strengths The ability to focus on details as well as the “big” picture is one of my greatest strengths. I realized I had this ability when I was working as the contracts/accounting manager for a small government contractor in Potomac, MD. I found myself being required to constantly shift my focus from the smallest detail about a single journal entry, to the broad scope of assessing our cost compliance on a contract over a 10-year period. At times I did feel like a yo-yo, however it was critical that I had the ability to deal with all of these issues as they arose. Therefore, I needed to be able to focus as close up or as far away as was necessary.

Another strength, which I possess, is my concern for high quality in the work that I produce. Although accounting provides an easy way to correct a mistake, just making an adjustment to the books, my motto is to “do it right the first time”. My feeling is that I am too busy to go back and correct mistakes, in addition to taking the time to find them, so I stress thoroughness and accuracy in my work. Further, it is important to me that those individuals using the reports I produce are able to use them with confidence. I don’t feel that making several adjustments or corrections brings about that sort of confidence. Nonetheless, when I do find errors in my work, it is critical for me to correct them, and to make sure that all individuals involved are aware of the correction.

Weaknesses My main weakness is the fact that I don’t always act on the opportunities which I may see. I feel that many times I am afraid to be assertive in those situations for fear that I don’t fully understand the subject matter, and may make a fool out of myself by asserting myself. I tend to sit back and evaluate and observe to the point where the opportunity is gone. I feel that I need to trust myself more in these types of situations, and take the chance of acting on an opportunity.

My next weakness ties into the idea of not acting on opportunities, since it is a fear of failure or being disappointed in myself. I tend to be very hard on myself when I make a mistake or when I don’t do my best. I know that if I could stop taking myself so seriously, and beating myself up, I would not be so afraid of making mistakes. It is unfortunate that this fear of failure gets in the way of my trying new skills or activities; and I feel that I need to get over this fear so that I will stop limiting myself.

Finally, I feel that another serious weakness that I possess, is a general lack of creativity or innovative ideas. Again, this weakness may be tied into my fear of failure, since I am preoccupied with that instead of relaxing and allowing myself to be creative. Another reason for my lack of creativity is that I always feel so busy and bogged down, that I don’t take the time to do relaxing activities or something out of the norm that may be stimulating

Table 6 (continued)

II. Learning Contract for This Semester

Experience	Learning Goal
1. Join the American Management Association and become involved in at least two activities during the semester	Designed to help me become more assertive and opportunistic
2. Get to know five new people this semester on a personal level, such that I will feel comfortable contacting them in the future or keeping in touch with them	Designed to help me become more assertive and opportunistic
3. Talk with at least 5 professionals in fields that interest me and find out about their responsibilities, their jobs and opportunities and their feelings about these three issues	Designed to help me become more assertive and opportunistic
4. Train over the semester and by the end be able to run three miles without stopping	Designed to help me overcome my fear of failure and to help myself deal with such feelings so that I'm not afraid to try something new or difficult
5. Be aware (and document) the times when I feel like a failure. Define the specific issue, or why I'm having those feelings, and help myself to understand the problem instead of beating myself up	Designed to help me overcome my fear of failure and to help myself deal with such feelings so that I'm not afraid to try something new or difficult

Table 6 (continued)

II. Learning Contract for This Semester –
*continued***Experience**

6. Try at least 3 activities that I'm relatively sure I won't be good or successful at, and be happy with myself for trying, whether it works out or not
7. Take at least 2 irritations, and instead of becoming angry or frustrated, think of a new way to solve the issue or see it from a different perspective
8. Go to 5 new places (locally or out of town) and observe all the different types of people and different atmospheres, and take some of that feeling home with me
9. Think of 1 really innovative idea for a business, something that hasn't been done before to my knowledge

Learning Goal

Designed to help me overcome my fear of failure and to help myself deal with such feelings so that I'm not afraid to try something new or difficult

Designed to encourage creative thinking so that I can learn to tap this part of my personality

Designed to encourage creative thinking so that I can learn to tap this part of my personality

Designed to encourage creative thinking so that I can learn to tap this part of my personality

6. Conclusion

The learning contract allows the entrepreneurship student to consider a range of attitudes, values, knowledge, self-concepts, roles, and motivations for starting and running a new venture. These competencies may be those that have been identified by various researchers and generally true of entrepreneurs who start and succeed in new ventures. With additional research, the student (and/or instructor) may identify particular competencies that have not been the subject of academic research but which are associated with new ventures in particular industries, regions, and countries. From these competencies, the student picks ten or more to develop in the course of one term. The learning contract may challenge him to continue developing these and other competencies outside the academic term. Finally, the learning contract method extends to non-academic adult learning environments such as programs sponsored by government and non-governmental organizations.

The learning contract leverages the self-direction and experiential learning of adult learners. It fosters life-long learning since the method of learning entrepreneurial competencies can be applied to other learning "projects" of the adult (Tough, 1979). If one of the competencies developed is the ability to

direct one's own learning, then students of entrepreneurship could become facile learners. Theoretically facile learners would be better able to recognize and adapt to changing role requirements that would accompany a growth enterprise (Nicholson, 1984).

This paper, while advocating the learning contract, can offer no empirical research evidence about the consequences of this contract. Longitudinal studies need to be conducted to see how self-directed entrepreneurship students' careers unfold. How many start new ventures in the area of their intention whilst in school? How many of these ventures succeed? Do self-directed students of entrepreneurship chart careers that are different from other students?

Finally self-direction seems to be a very Western value in organizational life in general and in schools, in particular. Exploration of learning contract approaches to entrepreneurship across cultures would add greatly to our understanding of how to best design and teach, facilitate and empower entrepreneurs in our classrooms.

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