

Learning Opportunities and Learning Behaviours of Small Business Starters: Relations with Goal Achievement, Skill Development and Satisfaction

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ABSTRACT. Learning is a vital issue for small business starters, contributing to short- and long-term business performance, as well as to personal development. This study investigates when and how small business starters learn. It specifies the situations that offer learning opportunities, as well as the learning behaviours that small business starters can employ in order to learn from these opportunities. In a cross-sectional, quantitative study of recently started small business founders, learning opportunities and learning behaviours are related to three outcome measures: a performance outcome (goal achievement), a personal growth outcome (skill development), and an affective evaluation outcome (satisfaction). The results show the importance of learning opportunities and learning behaviours in influencing these outcome variables, albeit not always in the directions we hypothesized.

KEY WORDS: entrepreneurship, learning, learning opportunities, learning behaviours, performance, small business start-ups.

JEL CLASSIFICATION: M13.

1. Introduction

For the majority of small business starters setting up a successful business is a challenging task in

which many hurdles need to be taken (Stewart and Roth, 2001). Change, complexity, and hostility may characterize the business environment of the young firm. Even in a favourable environment, one has to learn how to deal successfully with customers, suppliers, employees, financiers, product development, technology and governmental regulation (van Gelderen et al., 2000). In the process, one finds out about one's own abilities as an entrepreneur (Jovanovich, 1982). In sum, learning is a central issue for small business starter dealing with the task of setting up a successful firm.

For small business starters, learning serves multiple purposes: optimizing current performance, optimizing performance in the long run, and enhancing personal competence. Since learning is the outcome of both situational and personal determinants, we need to know which situations offer learning opportunities, and which behaviours small business starters can employ in order to actually learn from these opportunities. In this study, we therefore study learning *opportunities*: situations that challenge the person and evoke learning behaviour, and learning *behaviour*, the approach a person tends to take to learning opportunities. Learning *outcomes* such as performance or skill development, are determined by both learning opportunities and learning behaviour. We study two research questions simultaneously. From the perspective of optimizing performance, we want to know how learning opportunities and learning behaviours contribute to performance. From the perspective of optimizing personal competence, we want to know how learning opportunities and learning behaviours

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contribute to personal competence. This paper explores the questions of optimal performance and optimal personal competence by relating learning opportunities and learning behaviours to three learning outcome variables: a performance outcome (goal achievement), a personal competence outcome (skill development), and an affective evaluation outcome (satisfaction). Focus will be on the learning of newly started small business owners, and we discuss implications with regard to small business students.

2. Entrepreneurial learning

Traditionally, learning is an important variable in entrepreneurship, representing the acquisition or alteration of skills, knowledge, habits and attitudes necessary to deal with all aspects of running a business (Gibb, 1997). Since personal learning is dependent on both contextual and individual factors, models have emerged that describe humans as self-regulating living systems, which both affect and are affected by their environments (Bandura, 1991; Latham and Locke, 1991a). Therefore, we focus on learning opportunities and learning behaviours. We want to know:

- The conditions that make entrepreneurs learn. What are developmental job characteristics that provide learning opportunities?
- How entrepreneurs learn. Which different learning behaviours do entrepreneurs employ?
- How are learning opportunities and learning behaviours related to outcome variables such as goal achievement, skill development and satisfaction?

Two streams of research on learning in the entrepreneurship literature touch partially on our research questions. First, there is a widespread use of static indicators of learning prior to running a business (Reuber and Fischer, 1999). Examples are level of education and work-, management- and industry experience. These are routinely employed in research on firm performance (e.g. Basu and Goswami, 1999; Brüderl and Preissendorfer, 1998), usually giving small positive effects. The role of prior start-up experience is explicitly considered in research on differences between novice, serial and portfolio founders

(Westhead and Wright, 1998a, b). In models of entrepreneurial career choice, education and experience are often considered (Gibb Dyer, 1994; Kolvereid, 1996). Specifically, the influence of parental or other models on entrepreneurial intentions is explained by mechanisms from social learning theory (Bandura, 1977), emphasizing vicarious learning (Krueger, 1993; Scherer et al., 1989, 1990). All these approaches have in common that learning has already occurred. As we intend to study the net effect of learning opportunities and learning behaviours during start-up, we will control for learning that took place prior to the start-up.

Second, in recent years a number of studies have considered organizational learning and innovation. Although our focus is on the individual small business starter, we mention some approaches that take the organization as unit of analysis, because of the debate whether organizations learn or individuals in organizations learn (Aldrich, 1999). Organizational learning in small firms has been considered by Chaston et al. (2001). Following the conceptual work of Argyris and Schon (1978), they discern single loop learning (in which the organization adjusts for mistakes, tries to work more efficiently and effectively, but no structural changes occur), and double loop learning (in which the organization tries to discover and exploit new sources of knowledge). A related distinction is made by Burpitt and Rondinelli (2000), who discern two types of motivation in small firm exporting. In line with the literature on goal orientation (Button et al., 1996; Steele-Johnson et al., 2000), they distinguish a performance orientation and a learning orientation. Firms who have a learning orientation are said to have a orientation to learn new skills, to acquire or apply new technologies, and to broaden their organizational capabilities. Focussing on the individual, the decision to improve the old or to do something new is also considered by Minniti and Bygrave (2001) in their model of entrepreneurial learning. These authors have made an effort to model entrepreneurial learning as an iterative decision cycle, in which the entrepreneur continually has to decide whether he acts on previously acquired knowledge, or tries to gain new knowledge. Given our focus on small business starters, we will neglect

the literature on organizational learning and innovation in small firms. For organizational learning, there first needs to be an organization; double loop learning is not relevant as the single loop is not even established; and we consider innovation to be relevant to a small minority of small business start-ups only, the majority concerning itself with more mundane businesses (Aldrich, 1999).

A few studies bear directly on our research questions (Cope and Watts, 2000; Gibb, 1997; Honig, 2001; Reuber and Fischer, 1999; Sexton et al., 1997; Sullivan, 2000). The work by Sexton et al. (1997) relates to our research in a complementary fashion. They made an inventory of the learning needs of high growth entrepreneurs, as well as their preferred delivery channels to acquire the needed information. Their work is complementary in the sense that we focus on the learning behaviours of entrepreneurs, instead of their preferred delivery channels, and on what entrepreneurs do learn, instead of what they want to learn. The other studies will be discussed below as we consider learning opportunities, learning behaviours and learning outcomes. We will however primarily borrow from the field of management, as there is a prominent stream in management research that specifically focuses on management learning, management development and management success (Gherardi et al., 1998; McCall et al., 1988; McCauley et al., 1994). Advanced concepts have been developed with which one can analyze how and when managers learn. After we discuss these concepts, we will consider the extent to which these frameworks can be applied to small business starters, and propose some adjustments.

3. Learning opportunities: developmental challenge profile

According to McCauley et al. (1994), developing oneself as a manager implies enlarging the set of job situations one is able to master. Placing managers in challenging situations triggers such learning by providing both learning opportunity and motivation. Challenging situations are an opportunity for trying out new behaviours or reframing the old ways. They reinforce the motivation to bridge the difference between actual and desired

situation: to achieve a certain result, to avoid a negative result, or to diminish the discomfort of a painful situation. McCauley et al. (1994) have identified a number of such developmental job situations or 'components', and combined them in a questionnaire, the '*Developmental Challenge Profile*' (DCP). The DCP measures to which degree the respondent's job contains elements that are favourable for development as a manager.

In the DCP, four categories of developmental job components are distinguished: transitions, task-related characteristics, obstacles and support.

- (a) *Transitions*. A transition is defined as a change in work roles, such as a change in job content, status, or location (Nicholson, 1984). One reason why managerial transitions are developmental is because managers are confronted with novel situations rendering existing routines and behaviours inadequate and requiring the development of new ways of coping with problems and opportunities (Nicholson and West, 1988). A second reason why transitions are developmental is that managers who move to dramatically different jobs are often motivated by having to prove themselves to their peers, subordinates and supervisors all over again (Stewart, 1984).
- (b) *Task-related characteristics*. Task-related characteristics are related to the problems and dilemmas stemming from the task itself. Three types of task-related challenge are distinguished. First, creating change. Assignments that deal with implementations of change, such as starting something new from scratch, produce both opportunities and motives for learning. The combination of the desired goal and the ambiguity about how to achieve it produces a willingness to try new behaviours and attitudes in order to adapt, and an opportunity to innovate. Second, high levels of responsibility. Higher level jobs are characterized by an increased visibility that motivates learning, as well as by the opportunity to have a significant impact (Stewart, 1984), which encourages new approaches and personal development. Third, non-authority relationships. Situations in which managers have little formal authority over others, such as serving on task forces, are highly developmental.

Therefore, influencing others without formal authority is another task-related learning opportunity.

- (c) *Obstacles*. Working under adverse market conditions offers a challenging situation. The same applies to internal difficulties such as dealing with difficult employees. Learning stems from a desire to reduce the discomfort associated with such difficult situations.
- (d) *Support*. Supervisors and co-workers who provide support and feedback allow individuals to learn and to attempt the implementation of new ideas (Tracey et al., 1995). In the entrepreneurial context, this means the availability of a trusted mentor, a person with whom the entrepreneur can discuss experiences and problems (Sullivan, 2000).

In this study our assessment of learning situations of entrepreneurs will be based on the DCP. However, the DCP has been developed to assess the developmental characteristics of the job of the manager. While the four categories apply to entrepreneurs as well, the DCP emphasizes circumstances within the organization. However, for the entrepreneur mastery of relationships with business partners outside of the organisation is of crucial importance (Gibb, 1997; Honig, 2001). Since entrepreneurial learning occurs in interaction with business partners such as clients, suppliers and accountants, we have added a fifth developmental job characteristic that we call '*external parties*' (Honig, 2001). While for the moment the adapted DCP serves as a best guess, future research might develop a framework of learning situations specifically designed for entrepreneurs.

4. Learning behaviours: meaning oriented, instruction, oriented, planned and emergent

We define learning behaviour as the approach an individual takes to learning situations (Sadler-Smith, 1998). When assumed to be instances of a more general personal approach to learning, learning behaviours are called learning styles. Learning styles are often based on the concept of the learning cycle of Kolb (1984) in which experiential learning is conceptualized as a cycle consisting of four consecutive stages: concrete experience, reflective observation, abstract conceptualization

and active experimentation. A learning style represents an emphasis on a segment or point in the learning cycle (Megginson, 1996). Learning style typologies were coined by Honey and Mumford (1995; activist, reflector, theorist and pragmatist), Kolb (1984: diverger, assimilator, converger and accomodator), and many others (Sadler-Smith, 2001). In this study we are merely interested in learning behaviours as displayed in entrepreneurial situations, and not whether a stable personality characteristic is involved. As with personal action strategies (Frese et al., 2000; van Gelderen et al., 2001), learning behaviours do not equal personality variables nor are they completely situationally determined. Learning behaviours can be changed at will, do not have to be temporally stable, and are changeable depending upon the situation (Kahneman, 1973). So a person has several approaches to learning situations to his or her disposal and depending on the situation makes a choice. But, there are limits to the changeability of behaviours; people can not develop new ways of doing things in each situation and are not capable of exhibiting every behaviour in an optimal way (Kahneman, 1973). This means that persons deal with learning situations with an already 'ready made' set of learning behaviours which are mastered to different degrees.

In this study, we investigate the effects of four learning behaviours. We have chosen these four types as they have been applied in work situations instead of in educational settings only. Hoeksema et al. (1997) distinguished two approaches to learning: *meaning-oriented learning* and *instruction-oriented learning* (based on Marton and Saljo, 1976). In meaning oriented learning one looks for the deeper meaning of experiences on the job. With instruction-oriented learning the effort is directed to meeting one's obligations and answer expectations. Megginson (1996) also defined two learning approaches, namely *planned learning* and *emergent learning*. Planned learning includes a deliberation/forethought approach. Emergent learning is defined by unpremeditated exploration.

5. Learning outcomes: skill development, goal achievement, and satisfaction

We used three outcome measures of learning opportunities and learning behaviours: goal achieve-

ment, skill development and satisfaction. We did not consider financial measures of success, as we wanted to conduct our research with persons who recently started a firm. We believe that financial measures of success can not be measured in recently started firms, as there is no time lapse to compare performance. Also firm growth is not a relevant variable as most firms start out small and wish to remain so. We choose young firms as we expected learning experiences to be generally relevant in the first few years of the firm. The firm has to get established and the firm founder has to grow in his or her role as business owner. Moreover, Gartner (1989) regards entrepreneurship as the act of organisation formation, implying that recently started firm founders can be conceived of as entrepreneurs.

5.1. Relations between learning opportunities and outcome variables

Following the rationale of McCauley et al. (1994) for the development and subsequent testing of the DCP, we hypothesize all learning opportunities to be positively related to skill development (see also Cope and Watts, 2000). With regard to goal achievement, the situation is more complex. Restricting ourselves to goals that concern the development and financial status of the business, we expect the learning opportunities of transitions and obstacles to have a negative relationship with goal achievement. So while a new (transition) or difficult (obstacle) situation can have a positive influence on career outcomes for managers on account of accelerated skill development (Van der Sluis, 2000), we expect such obstacles and transitions to have a negative effect on goal achievement for small business starters. Support (Sullivan, 2000) and frequent involvement with external parties (Gibb, 1997) on the other hand have shown to be positively related to small business success. For the relationships between learning opportunities and satisfaction, we expect task-related characteristics to have a positive effect on satisfaction (Hackman and Oldham, 1975, 1976). Many small business starters feel attracted to the challenge of setting up a business as well as the autonomy and responsibility that comes with it. In sum, we hypothesize

Hypothesis 1a. Skill development is positively related with all learning opportunities

Hypothesis 1b. Goal achievement is positively related with support and external parties; and negatively related with transitions and obstacles.

Hypothesis 1c. Satisfaction is positively related to task related characteristics.

5.2. Relation between learning behaviours and entrepreneurial success

In the context of the small business start-up, we expect all learning behaviours to be positively related to skill development (Cope and Watts, 2000). Meaning oriented learning, as reflections on experience will contribute to skill development. Instruction oriented learning, as instructions might prove valuable in several situations Planned learning, as it treats skill development in a goal directed fashion. Finally, emergent learning, as it represents learning from experiences that befall the small business starter.

Based on goal setting theory (Latham and Locke, 1991b), we expect planned learning to relate positively to goal achievement. Using a comparable research framework, Frese et al. (2000), and Van Gelderen et al. (2001) found planning to be positively related to goal achievement in a sample of small business starters. Van der Sluis (2000) found planning to be positively related with career success of managers.

We expect satisfaction to be positively related to meaning-oriented learning. Tannenbaum (1997) found individuals with learning behaviour reflecting a greater awareness of the big picture and underlying relations, reporting higher levels of satisfaction with their performance and development. Thus, we hypothesize

Hypothesis 2a. Skill development is positively related to all learning behaviours.

Hypothesis 2b. Goal achievement is positively related to planned learning.

Hypothesis 2c. Satisfaction is positively related to meaning oriented learning.

6. Method

6.1. Sample and procedure

In a cross-sectional design, we sampled people who started their business in the past two years.

We choose to do so because we assumed that learning is highly relevant for all small business starters in their first period. Moreover, including firm founders in the same organizational stage makes a cross-sectional comparison possible. Also, with new firm starters stock measures of prior learning can be controlled for less ambiguously (Reuber and Fischer, 1999). Our sample consisted of 91 entrepreneurs in the region of Amsterdam, the Netherlands. This selection was made from a random list of firms supplied by the chamber of commerce. A large majority of the business start-ups in the Netherlands are required to register with the chamber of commerce. Firms were first contacted by phone, and asked for consent to be sent a questionnaire. The questionnaire had to be filled out by the owner/founder. The list provided by the Chamber of Commerce turned out to be quite polluted, as only 40% of the firms on the list could be contacted. Many phone numbers were out order, and many other businesses were older than two years. Of the firms contacted, the response rate was 25%. Two owners who did not have daily supervision of the business were deleted from the sample. Business owners came from various industries. Average age of the businesses was 15 months. Table I gives some characteristics of the sample.

6.2. Measures

6.2.1. Learning opportunities

Learning opportunities were measured by the DCP. Van der Sluis (2000) validated this questionnaire on a Dutch sample. An expert meeting was held in order to make the DCP applicable to entrepreneurs. As a result, some subcategories specific to managers were deleted (for example “inherited problems”, “lack of support from top management”), and a category on learning from external parties was added, reflecting the more externally oriented focus of entrepreneurs. Learning opportunities were measured by 40 items on a 5-point scale from 1 (absolutely not descriptive for me) to 5 (extremely descriptive for me). Task-related learning opportunities has 20 items as it consists of five subcategories, which are studied on the aggregate level in this paper. Respondents were asked how well each item described their current work. Item examples for the five opportunities are:

TABLE I
Sample characteristics ($N = 89$)

Variable	Percentage	Mean	Median	SD
Sex				
Male	73%			
Female	27%			
Age of starter		34 years	32 years	8.72
Education				
Low/middle	45%			
High	55%			
Age of company		15 months	15 months	8.66
Sector				
Business services	62%			
Trade	23%			
Other	15%			
Entr. Experience				
Novice	66%			
Experienced	34%			
Experience				
Work experience		12 years	10 years	8.46
Industry experience		7 years	6 years	6.61
Management experience		5 years	3 years	6.14
Team				
Solo	72%			
Team	28%			

‘I have to manage something with which I am unfamiliar’ (transition), ‘Decisions I make directly affect the well-being of others’ (task-related characteristics), ‘Resources are scarce – every penny must be turned around first’ (obstacles); ‘I have a mentor who gives advice and support’ (support), ‘I ask my clients for suggestions on improvement’ (external parties).

6.2.2. Learning behaviours

Measurement of learning behaviours is based on the Learning at Work Inventory (LAWINE) (Hoeksema, 1995) and the Learning Strategies Questionnaire (LSQ) (Megginson, 1997). The first measure assesses meaning oriented and instruction oriented learning, the second instrument assesses planned learning and emergent learning. These measures were further developed by Van der Sluis (2000). Learning behaviour was measured with 17 items on a 5-point scale ranging from 1 (totally not true for me) to 5 (totally true for me). Item examples for

the four learning behaviours are: 'I try to find out how various aspects of the problems I come across link together' (meaning-oriented learning); 'I like to be told precisely what is expected from me' (instruction-oriented learning); 'For me learning is a planned process of setting goals, achieving them and setting new goals' (planned learning); 'It is important to be open to experience, learning will occur as a consequence' (emergent learning).

6.2.3. Outcome variables

Goal achievement was measured by first asking which goals the respondents had with their business followed by a rating of how they felt they had thus far achieved these goals given the limited period they had been in business. There were 208 goals mentioned, of which 174 (84%) were business goals. For the analyses only business-related goals were used, for which mean scores were computed. Goals that were related to personal development, learning or satisfaction were thus excluded, in order to avoid confounding with our other outcome measures: skill development and satisfaction. Although still heterogeneous (for example some starters want their firm to grow large and others want to remain small), some homogeneity is achieved by using business-related goals only. Skill development was measured by rating how the respondents felt they had developed since start-up on a number of skills such as negotiating, organizing and marketing. Satisfaction was measured by asking about level of satisfaction on a number of aspects such as income, status, personal development and business development.

Table II gives the means, standard deviations, number of items in the scale and reliabilities for all variables. Reliabilities were sometimes low, suggesting that improvement in measuring the modelled variables can and should be made. In three scales (transitions, external parties and skill development) one item was removed in order to increase reliability. No reliability is given for goal achievement, as the different goals that people mention do not need to be correlated, which gives goal achievement more the character of an index. The frequency distributions show that the small business starters generally had high scores on the learning behaviours and the outcome variables.

TABLE II
Descriptives of the research variables

	Mean	SD	Items	Alpha
Learning opportunities				
Transitions	2.52	0.84	3	0.65
Task-related characteristics	3.22	0.62	20	0.82
Obstacles	1.96	0.65	9	0.73
Support	2.92	1.35	3	0.90
External parties	3.51	0.98	3	0.77
Learning behaviours				
Meaning oriented	3.75	0.83	5	0.75
Instruction oriented	3.34	0.81	4	0.64
Planned learning	3.67	0.82	4	0.72
Emergent learning	3.79	0.68	4	0.62
Outcome measures				
Goal achievement	3.82	0.85	1-3	
Skill development	3.80	0.49	7	0.70
Satisfaction	3.82	0.52	8	0.75

Note: $N = 89$, all 5-point Likert scales.

Obstacles were the least reported learning opportunity. Because of these high mean scores, a factor analysis using varimax rotation was done that confirmed item groupings.

6.3. Analyses

Hierarchical linear regression analyses were performed in order to test our hypotheses. We controlled for education and start-up experience in order to correct for prior learning. As we wanted our results to be generalized for age and gender, we included these controls in the first step. Hierarchical multiple regression analysis extracts the variance of the variable included first and continues to build up the regression solution by adding portions of variances of other predictors. Variables included earlier account for more variance than they would account for were they included at a later point in analysis. This means that we have used a conservative approach for estimating the effects of earning opportunities resp. learning behaviours: these could only explain the variance left over after 2×2 controls were first allowed to explain the outcome variables.

7. Results

Table III gives the correlations between the variables in our study. While our small sample size

TABLE III
Correlations: learning opportunities, learning behaviours and learning outcomes

	1	2	3	4	5	6	7	8	9	10	11
1 I.O. transitions	–										
2 I.O. task-related	0.12	–									
3 I.O. obstacles	0.39**	0.33**	–								
4 I.O. support	0.18	0.13	–0.13	–							
5 I.O. external	0.04	0.30**	0.08	0.28**	–						
6 I.B. meaning	0.17	0.30**	–0.01	0.10	0.24*	–					
7 I.B. instruction	0.20	0.17	0.12	0.21*	0.08	–0.14	–				
8 I.B. planned	0.17	0.41**	0.15	0.12	0.26*	0.18	0.19	–			
9 I.B. emergent	0.17	0.25*	0.11	0.10	0.07	0.10	0.23*	–0.01	–		
10 O.V. goal ach.	–0.08	0.03	–0.16	–0.09	0.25*	0.18	0.28*	–0.05	–0.06	–	
11 O.V. skill dev.	–0.20*	0.32**	0.05	0.17	0.11	0.09	0.14	0.32**	0.02	0.06	–
12 O.V. satisfaction	–0.02	0.33**	–0.14	0.04	0.17	0.38**	0.09	0.19	0.04	0.35**	0.45**

Note: L.O. = Learning Opportunities; L.B. = Learning Behaviours; O.V. = Outcome Variable.

* $p < 0.05$ and ** $p < 0.01$.

does not allow the computation of interaction effects, we generally see positive correlations between learning opportunities and learning behaviours.

In order to test the hypotheses, hierarchical regression analyses were performed. Five of the six models showed a significant increase in explained variance by adding learning opportunities or learning behaviours. The results for learning opportunities are shown in Table IV. Contrary to our hypotheses did not all learning opportunities contribute positively to skill development, with transitions even having a marked

negative effect. Only task related characteristics relate positively to skill development. The hypotheses with regard to goal achievement also are only partially confirmed. Interaction with external parties has an effect in the predicted directions. However, transitions, obstacles and support do not relate significantly with goal achievement. Our hypothesis with regard to the positive relationship between satisfaction and task-related characteristics was confirmed. Obstacles had a negative relationship with satisfaction.

Table V shows that our hypothesis that all learning behaviours would contribute to skill

TABLE IV
Learning opportunities as predictors of entrepreneurial outcomes

	Goal achievement		Skill development		Satisfaction	
	st. beta	R sq. ch.	st. beta	r sq. ch.	st. beta	r sq. ch.
controls: age	0.06		–0.06		0.07	
Gender	–0.17		–0.03		–0.15	
		0.03		0.01		0.02
controls: education	–0.15		0.05		0.03	
start-up experience	0.05		0.21		0.05	
		0.02		0.04		0.00
Transitions	0.03		–0.32**		–0.07	
task-related char.	0.00		0.31**		0.43**	
Obstacles	–0.26		0.08		–0.35**	
support	–0.22		0.21		–0.07	
external parties	0.31*		–0.06		0.08	
		0.13		0.19**		0.20**

* $p < 0.05$ and ** $p < 0.01$.

TABLE V
Learning behaviours as predictors of entrepreneurial outcomes

	Goal achievement		Skill development		Satisfaction	
	St. beta	r sq. ch.	st. beta	r sq. ch.	st. beta	r sq. ch.
controls: age	0.06		-0.06		0.07	
gender	-0.17		-0.03		-0.15	
		0.03		0.01		0.02
controls: education	-0.15		0.05		0.03	
start-up experience	0.05		0.21		0.05	
		0.02		0.04		0.00
meaning oriented	0.33**		-0.01		0.40**	
instruction oriented	0.29*		0.13		0.10	
planned learning	-0.18		0.30**		0.09	
emergent learning	-0.14		0.10		-0.04	
		0.15*		0.11*		0.16**

* $p < 0.05$ and ** $p < 0.01$.

development, was disconfirmed. Only planned learning showed a positive relationship with skill development. Our hypothesis with regard to goal achievement was disconfirmed, as planned learning was not related to goal achievement, while meaning- and instruction-oriented learning were. Finally, the hypothesis with regard to satisfaction was confirmed, as meaning oriented learning was positively related to satisfaction.

8. Discussion

In this study, we have distinguished learning opportunities and learning behaviours. We then related these to a number of entrepreneurial outcomes. The results confirm our basic theoretical starting point that individual learning is the outcome of personal and situational 'drivers'. Our results are of special interest to entrepreneurship educators, as they indicate the learning opportunities and learning behaviours that should be created or stimulated to achieve specific outcomes.

With regard to the outcome of *skill development* there is a positive impact of task-related characteristics. This suggests the importance of experiential learning: through doing the task and assuming the responsibilities learning outcomes do occur. The other learning opportunities did not contribute to skill development. Transitions showed a marked negative effect. This is surprising, as one might expect more room for learning for inexperienced people. Also obstacles did not contribute to skill development. This is conflicting

with the results of Cope and Watts (2000), who found particularly obstacles to contribute to entrepreneurial learning. Perhaps the research methodology of Cope and Watts is more suited to study obstacles and their effects, as they used an interview technique exploring critical incidents. In such a setting, entrepreneurs might be more willing to admit and discuss difficulties and their effects. With respect to learning behaviours, the positive relation between planned learning and skill development indicates that planned learners consciously try to develop their abilities. Planned learning seems to be a good strategy to improve on skills that are currently underdeveloped.

The relation between external parties as learning opportunities and *goal achievement* underscores the importance that is attached by Gibb (1997) to 'contextual' knowledge, which is gained by communicating with business partners. This is something that can be incorporated in entrepreneurship education by not only teaching students to write business plans, but also having them communicate with partners relevant to the plan. Instruction oriented learning was positively related to goal achievement. This is congruent with the findings for managers by Van der Sluis (2000). Apparently, for new, inexperienced entrepreneurs it is helpful to be guided by information and advice. This is a significant finding for agencies that support small business starters, as well as for entrepreneurship educators. Meaning oriented learning was positively related to goal achievement.

We also found meaning-oriented learning to be positively related to *satisfaction*. This suggests a circular process between being successful, enjoying work and spending analyzing the different processes involved in running their business. Entrepreneurship educators can stimulate meaning-oriented learning by giving exercises whereby deep level processing is involved, for instance the in-depth analysis of cases. Satisfaction is further negatively related to obstacles and positively to task-related characteristics. Starting firm owners presumably feel attracted to high responsibilities, which can explain the strong relation with satisfaction.

While this study is one of the first to address the issue of how and when small business starters learn, we feel that the importance of our actual results should not be overemphasised. Apart from the small sample size, our empirical work contains a number of weaknesses. First, the main limitation of this study is its cross-sectional design. This means that causality issues as well as long term effects can not be addressed. As an exploratory study, it should (and will) be followed by a longitudinal study. In such a study some design issues may be considered. The appropriate object of analyses will then a particular experience or event, for example a certain obstacle (Reuber and Fischer, 1999). Effects on outcomes of this particular obstacle must be isolated from other learning opportunities. An interview approach will then be more appropriate than a survey approach, both for selecting the particular event/experience that will be studied as for generating data of how this event/experience influenced outcomes in the long run. Second, our questionnaire has been based on work with managers, although adapted to the context of entrepreneurs. This adaptation should be made more thorough, by doing a study in which entrepreneurs are asked how and when they learn. Such a study would validate and improve our method of measurement of learning opportunities and behaviours. Perhaps categories would emerge that were not included in this research. Third, this study suffers from a single source problem as all relevant data were obtained in the same way from the same person.

Apart from improving on these points, several avenues for future research are possible. First,

the interactions between learning opportunities and learning behaviours in explaining success can be studied in detail: Which combinations of opportunities and behaviours strengthen their combined effect on success and which combinations offset each others effects, suggesting compensation mechanisms? In this way, specific recommendations for entrepreneurship education and training could be derived. Second, learning content is abstracted from in this study. Future studies can be more specific by taking a specific learning content into account, for example opportunity recognition. Third, goal orientation might be a relevant variable to consider as the relationships between learning and performance might vary by whether one is oriented more towards learning or towards performance (Button et al., 1996; Steele-Johnson et al., 2000). In the same vein, one may distinguish between innovative small business starters and non-innovative ones. Fourth, the life cycle of the firm can be taken into account by studying small business owners in other periods than the first two years.

This study's findings underline the importance of doing research on the influence of learning opportunities and learning behaviours on entrepreneurial success. It indicates that entrepreneurs can influence their entrepreneurial career by managing their learning behaviour and by paying attention to contextual factors. The same conclusion applies to people who are responsible for entrepreneurial education. They should pay attention to learning approaches as well as the context in which the entrepreneurship student is educated and trained. The research outcomes are useful starting-points for improving entrepreneurial learning and success.

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