Exploring entrepreneurial identity construction: the case of an action-based entrepreneurship education

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Abstract

Policy makers and practitioners increasingly call upon the need for entrepreneurial competence, as exemplified through the continued growth of entrepreneurship educations. But, while there exist varying pedagogic approaches for entrepreneurship education, few are sufficient in developing new ventures and stimulating entrepreneurial behavior. Besides acquiring the knowledge and skill to act entrepreneurially, entrepreneurial learning is seen to also include developing an identity. However, entrepreneurial identity construction has not significantly been addressed in relation to education. There exist learning processes associated to concepts of identity construction, but these are remiss in existing descriptions of entrepreneurship education. Our objective is to explore the construction of entrepreneurial identity within an action-based entrepreneurship education.

The article builds upon insider action research principles to investigate an action-based entrepreneurship education, employing a 'learning through' approach. The aim is to investigate if this approach can be used to facilitate constructing identity, for both the individual and their firm. Excerpts from participants in the education illustrate entrepreneurial identity construction through means such as storytelling, negotiation, symbolism and cliché.

We argue that identity construction needs to be seen as equally important to entrepreneurship education as content and pedagogy, if the educational objective is learning for the practice of entrepreneurship. Faculty and students need to strategically work with identity construction as students transition into an entrepreneurial career. An environment utilizing storytelling and reflection allows students, and surrounding stakeholders, to make sense of experiences in relation to identity construction.

Keywords: *entrepreneurial identity, entrepreneurship education, venture creation, entrepreneurial learning*

Introduction

Entrepreneurship has long been argued as contributing to economic prosperity (see for example Baumol 1986; Baumol et al. 2007), and as a result policy makers and practitioners alike increasingly call upon the need of entrepreneurial competence to drive economic growth in their regions (OECD 2011; World Economic Forum 2011). Emphasis on developing new entrepreneurs that can deliver this competency is marked by the continued growth of entrepreneurial education programs (Finkle and Deeds 2001; Katz 2003; McMullan and Long 1987; Solomon 2007). However, not all lead to the development of entrepreneurially acting individuals or the creation of new firms (Gruber 2007; Honig and Samuelsson 2012; Karlsson and Honig 2007).

Varying pedagogic approaches distinguish between education conducted *about*, *in*, *for* or *through* entrepreneurship (Co and Mitchell 2006; Hytti and O'Gorman 2004; Kirby 2004; Pittaway and Edwards 2012). Ollila and Williams Middleton (2011) argue that the 'about' and 'in' approaches to entrepreneurship education are not sufficient when attempting to integrate education which contributes to economic development while also developing new ventures and stimulating entrepreneurial behavior. They argue that the 'through' approach advances upon education 'for' entrepreneurship, since the students achieve learning for becoming an entrepreneur through engagement into a process of new venture creation.

While entrepreneurship education focuses on objectives towards acquiring knowledge and skill, entrepreneurial learning emphasizes learning about 'who I want to be' and constructing an identity that enacts this (i.e. the individual's story). In his work, David Rae argues that entrepreneurial learning is not only retrospective, but also incorporates current experience and future thinking processes as the individual creates what they want to become. He claims that: "In entrepreneurial learning, knowing, acting and making sense are interconnected" (Rae 2000, pg. 151). These learning processes can be associated to concepts of identity construction, as individuals create provisional-selves relative to a future role (Ibarra 1999), but seem to be remiss in existing descriptions of entrepreneurship education (Hytti 2003). Previous research on entrpreneurship education has pointed to the importance of actually creating a venture as a part of the education to thus learn entrepreneurship *through* (see, for example Lackéus and Williams Middleton 2011; Mwasalwiba 2010; Ollila and Williams Middleton 2011; Pittaway and Edwards 2012), which could be considered as teaching entrepreneurship by means of create organizational identity. However, the entrepreneurial identity creation of the student as a part of entrepreneurship education has been neglected.

Obrecht (2004) argues that in order to act entrepreneurially, individuals need a set of capabilities which are personal, organizational and societal. Components influencing entrepreneurial capability include identity and knowledge (associated to the individual) as well as networks, legitimacy and locality (seen as associated to context) (Obrecht 2011). Work to develop entrepreneurial identity, while fundamentally linked to a person's biography, involves not only internal self-reflection, but also social engagement – through talk and action (Watson 2009). But when engaging socially, particularly with established social groups, individuals endeavouring to take on the identity of entrepreneur are often challenged with how this new identity fits with

existing identities and roles.

However, to our knowledge there are no studies addressing the process of identity construction over the course of an education nor how identity construction may be integrated with individual competency development. Recognising this gap a case study of an action-based entrepreneurship education, where students are creating a venture as a part of the education, has been conducted to explore the construction of entrepreneurial identity.

By drawing attention to action-based enterprenurial education we hope to build on theories around entrepreneurial identity creation to explore what an action-based education can do to facilitate not only venture creation but also entrepreneurial identity creation. The main theoretical contribution of this article is to the field of entrepreneurship education. Furthermore the article aims at connecting the separated fields of entrepreneurial learning and entrepreneurship education. As for the practical contribution we hope our findings will inform action-based entrepreneurship education of identity creation as a yet unexploited part of entrepreneurship education.

Theoretical framework

Entrepreneurship education

It is acknowledged that higher entrepreneurial education ought to include an experiential learning perspective together with some kind of interactive pedagogy in order to enhance learning and innovative capacity (Barrett and Peterson 2000; Collins et al. 2006; Honig 2004; Johannisson et al. 1998; Lundström and Stevenson 2002; Pittaway and Cope 2007; Vinton and Alcock 2004; Yballe and O'Connor 2000). However, of the four main types of entrepreneurship education, *about, in, for,* and *through* (Mwasalwiba 2010; Pittaway and Edwards 2012), only the latter incorporates the practice of entrepreneurship into the learning process, as part of the formal curriculum (Lackéus and Williams Middleton 2011).

Gibb (1996) proposes an enterprising teaching approach that he argues as essential for connecting conceptual knowledge to a range of entrepreneurial behaviors. Gibb claims this approach is successful because it creates a) a learning environment which provides ownership, control, autonomy and customer-led rewards b) a holistic management and multi-disciplinary approach to teaching which is project and process-based, and c) a teaching style employing a wide range of learning processes such as conventional lectures, seminars, and workshops, focus groups, teaching of peers etc. Overall Gibb claims that the enterprising approach stresses the importance of a focus upon the "internalization" of knowledge and the adoption of a definition for real learning, as stated by Maples and Webster (1980).

Some specialized approaches, building upon the foundations provided by Gibb, have been developed to facilitate learning *through* engagement in the practice of entrepreneurship. For example, Heinonen and Poikkijoki (Heinonen 2007; Heinonen and Poikkijoki 2006) present an entrepreneurial-directed approach to encourage students to develop entrepreneurial skills and behaviour needed for their studies, an approache argued as well suited for teaching entrepreneurial behaviour in a university

setting. Ollila and Williams Middleton (2010) introduce a venture creation approach (see figure 1 below outlining the three approaches the discuss in their article), which builds on the work of Gibb, but integrates incubation of viable ideas into the educational process. The approach allows students to "test the water" by involving them in real-life entrepreneurial and business activities as the leading actors (the entrepreneurial team). This facilitates learning by doing, reflection upon actions taken (Cope 2003; Cope and Watts 2000), development of decision-making logics (Chandler et al. 2011; Sarasvathy 2001) and prioritization of activities, all with the intent of successfully creating new ventures. Ollila and Williams Middleton argue that in order to go beyond stimulating entrepreneurial behavior to include actual venture creation (i.e. the realization of the entrepreneurial behavior), a real-life oriented teaching approach is needed.

A venture creation approach (Ollila and Williams Middleton 2011) demands a learning environment that is "reality", but, that reality must still allow room for reflection. The educators facilitate and/or partake in real-world activities while also *bringing in complementary actors*, such as different academics, investors, idea providers, practitioners, etc. from other arenas other than merely differentiated educational disciplines. The same holds true for the incubators – that they must understand and continually take into account the learning requirements to fulfill not just the development of the venture, but of the individuals that will drive the venture forward.

Figure 1. Three different approaches to teach entrepreneurship (Ollila and Williams Middleton 2011)

CONVENTIONAL APPROACH*	ENTERPRISING APPROACH*	VENTURE CREATION APPROACH
Major focus on content	Major focus on process delivery	Major focus on reflection-in-action
Led and dominated by teacher	Ownership of learning by participant	Learning facilitated by integrated environment
Expert hands-down knowledge	Teacher as fellow learner/facilitator	Multiple learning stimulators
Participants passively receiving knowledge	Participants generating knowledge	Participants seeking and co-creating knowledge
Sessions heavily programmed	Sessions flexible and responsive to needs	Sessions emerging from venture related activities
Learning objectives imposed	Learning objectives negotiated	Learning objectives emerging through reflection
Mistakes looked down upon	Mistakes to be learned from	Mistakes encouraged
Emphasis upon theory	Emphasis on practice	Emphasis on creation
Subject/functional focus	Problem/multidisciplinary focus	Combination of problem-oriented and solutions-focused

Appreciating the need of experiential learning perspective none of the above mentioned

approaches address facilitation of entrepreneurial identity construction as a key part of teaching entrepreneurship. Accordingly, this article aim at exploring identity creation in an action-based entreprenurship education.

Entrepreneurial identity construction
The professional identity of managers develops in the cultural context and in the social groups that they relate to professionally. Education is also part of the development of identity creating a kind of mindset in the course of a lifelong schooling process. Often, entrepreneurship education is intended to equip students with the abilities needed to establish enterprises. For example, in comparing Estonian and Finnish management students' values, Aaltio (2008) argues that the educational process by which identity is constructed is relevant, but equally relevant is its content. According to Aaltio, the use of narratives, the stimulation of tacit knowledge of the participants, collective sharing of experience and reflecting on these experiences all support identity building and therefore should be part of management education aiming to meet new economic circumstances.

Rigg and O'Dwyer (2012) argue that the entrepreneurial aspect of human identity is emergent and relational and it is developed through dialogue with family, customers, employees, suppliers, competitors and others. They illustrate how mentor networks in the education program can stimulate the aspiring entrepreneurs' learning of how to be, thus in part enabling acquisition of status and identity. The authors argue that individuals learn the most when acting at the 'edge of familiarity'. The boundary of the 'familiar' can be extended through the social interaction with mentor networks, including not only verbal, but non-verbal contributions as well.

Along the same line of reasoning, Shepherd and Haynie (2009a) discuss the challenge entrepreneurs face in balancing between fulfilling a need for distinctness and having a sense of belonging in order to equalize their psychological health (as studies show that humans seek out both a sense of self through distinctiveness, but also have a psychological need of belonging). The authors argue that for entrepreneurs, the risk is an imbalance towards distinctiveness as this relates to the entrepreneurial role associated to the venture, which must be distinct. The authors suggest that the distinctiveness bias might be balanced through micro-identities.

Research on entrepreneurial identity emphasizes storytelling as an important part of identity construction (see e.g. Fletcher and Watson, 2007; Harmeling, 2011; Hytti, 2005; Johansson, 2004; Rae, 2005; Steyaert, 2007). Harmeling (2011) offers a conceptualization of the entrepreneurial identity construction process as re-storying, in which "individuals undertake to develop, maintain and exhibit both personal and social identities."(pg. 746). She argues that entrepreneurship education can be an 'identity workspace' where individuals can gain not only knowledge, but experiences including development of self-narrative. Through studying the contrasting life stories of two entrepreneurs, Johansson (2004) argues that storytelling is used to illustrate perceived and enacted 'windows of opportunities' involving dialogues, which the entrepreneur has both with himself and with others. Rigg and O'Dwyer (2012) and Williams Middleton (2013) both illustrate ways in which the entrepreneur negotiates diologues and stories in interaction with critical others in order to legitimize the identity being constructed. It is

through such storytelling, and the associated negotiating and interaction with others, that the entrepreneur demonstrates entrepreneurial experience gained.

Visual and oral symbols are also seen as contributing to entrepreneurial identity (Boje and Smith, 2010; Clarke, 2011; Down and Warren, 2008; Smith, 2011). Clarke (2011) demonstrates how entrepreneurs use visual symbols to present an appropriate scene to stakeholders, create professional identity and emphasize control/regulate emotions. Visual symbols used include: *setting* - office furniture, space and external surroundings; *props* - pictures/paintings, displays of prototypes, framed patents/historical documents; *dress* - formal or informal, to impact on audience; *expressiveness* - visually conveyed emotions or thoughts through body or facial movements. Clichés – a discursive means by which to explore the possibilities of incorporating new or otherwise unfamiliar experiences into the individual´s ontological narrative – are also used to secure entrepreneurial self-identity (Down and Warren 2008). The clichéd language, including elements such as risk, ambition, growth and control, is seen to potentially evoke vivid imagery more safely.

Based on a study of the crafted and reinvented identities of two famous entrepreneurs, Boje and Smith (2010) found that the companies of these entrepreneurs co-manufactured the identities of their entrepreneurial-leaders by inter-mingling the corporate intentionality of the images and narratives with fragments of direct discourse. They emphasize a relationship between the individual and firm entrepreneurial identity construction. This idea is also supported in Rae's (2005) model for entrepreneurial learning, which includes the individual's personal and social emergence, contextual learning and negotiated enterprise. Personal and social emergence relates to learning about oneself that helps inform construction of entrepreneurial identity. The contextual learning and negotiated enterprise continue the narrative development of identity, but expands to include the story of the firm, not just the entrepreneur.

Building on these theories to following research question si formulated to guide the work in this article: How does action-based entrepreneurial education support/facilitate entrepreneurial identity construction?

Method

The study is based on insider action research principles, emphasizing the generation of new scientific knowledge through the utilization of contextual-based insights while simultaneously enabling continual and additional organizational capabilities (Coghlan & Brannick, 2001; Roth, Shani, & Myleen, 2007). Data comes from a) group development talks conducted with the student teams at fixed times throughout the venture creation project period, b) debriefing and coaching events arranged at strategic points in the education and c) individual mid-term talks allowing students to describe the assessment of their current situation and get feedback on the progression of their learning process. Data analysis involved collecting excerpts from the data and coding them in accordance with described procedures (Miles and Huberman 1994; Strauss and Corbin 1990), such that excerpts were structured into "categories" illustrating entrepreneurial identity construction.

Setting - a venture creation education.

The study investigates a venture creation education in Göteborg, Sweden: Chalmers School of Entrepreneurship. At the core of the school is a two-year masters program, providing education and guidance, and engaging students in real-life venture creation during the second year, with the objective to incorporate the venture should it prove to be viable. The school also includes a pre-incubator, defined as an early-stage business incubator responsible for recruiting and contractually securing venture ideas to the school as well as providing seed-financing coupled with management support, and entrepreneurial role-sets including mentors, researchers, advisors, etc. Should ventures illustrate market viability, they are incorporated at the conclusion (or sometime thereafter) of the education. Students [Graduates] continuing with the incorporated venture after completion of the education have both an equity share and employment position. As educators at the school, we have access to an empirical context deemed viable for exploring identity construction.

Empirical Findings

Empirical data is collected from participants in a venture creation program to illustrate entrepreneurial and organizational identity construction, as exemplified in the following excerpts:

Within the action-based entrepreneurial eduation, students learn which activities are appreciated and associated to an 'entrepreneurial' identity through feedback from peers. Excerpt 1, taken from a student journal entry, illustrates how a student perceives his role in the entrepreneurial team, and how this shifts based on feedback from peers.

Excerpt 1 (student journal entry): "...we have been talking within the group about our roles and how we are perceived by the others. This is something that I appreciate very much since I get to reflect over what my group is telling me and then think about it in action so to speak. One concrete example of this is how I act during meetings. I usually take a lot of space and talk a lot and sometimes I feel like I should take a step back and let the others speak more. But my group members have now told me that they appreciate that I can take the lead in meetings or in discussions. Today, Friday, we had a meeting with [Henry] and after this meeting my group members told me that I was very good during this meeting by raising some important questions and aspects and that they appreciated that I was not "afraid" of taking the discussion with experts within their own fields. This was a very good experience for me and now I know that this side is appreciated even though I should think about when it is suitable to use it more and when it is suitable to use it less."

In Excerpt 2, taken from a student-faculty development talk midway through the venture creation process, the student describes how he and his teammates create a story of the management team, and then position themselves relative to other key stakeholders. However, they do not actually accept the identity of the management team until they have engaged in certain activities.

Excerpt 2 (individual mid-term talk): "...it's a question of how we, how we actually used our position as the management team ... the two, three last weeks of the project

were like, we started to be the real management team. We started to look up things, we started to actually call people, and paint our own picture of how the world looks, and not the researchers' view of it. And then when we presented it at the board meeting, they were actually surprised, like: 'oh!' And as [my teammate] said, one of the idea providers actually said that: 'maybe, that's actually the world that you're supposed to go in, but the research world is much different.' And [we thought], okay, but we're not going to make any business in the research world. And I feel like, okay, we're the management team. I agree with [my teammate], we were from the beginning. ... But then again we weren't the management team because we didn't act [as] the management team until we started to critically actually look and paint our own picture and how it was out there."

Excerpt 3 is taken from a faculty discussion with an entrepreneurial team, midway through the venture creation process in the education. The student uses symbolism to communicate the change process he has undergone, and how that changes the way he presents himself to his friends outside the education.

Excerpt 3 (group development talk): "in the beginning, you pretended to be an entrepreneur, or you pretended to be an owner of a project. You were telling [your friends] this and that. And now you can actually put it down in a couple of words and say: 'this is what we do', and their like: 'oh'. And that says a lot because in the beginning it was: 'this is what we have, and this is what we're going to do', and I feel more like an entrepreneur now than I did 4 months ago. I feel like okay, now I can actually stand for the words, more or less. ... Sometimes you have to turn at the corner, and then you know you've changed, but sometimes it's like the world goes like this (showing shifting motions), and all of a sudden you're here and you know that you turned a corner, but you weren't aware of that when you did it, and when you look back [you see that] you did. So it feels more like a process of that kind than a radical change."

In excerpt 4, taken from a student journal entry, a student reflects upon interactive seminars he/she has attended within the educational environment where he/she was expose to practing entrrpenurs.

Excerpt 4 (student journal entry): "This week I have attended three presentations where entrepreneurs tell the story of their life. The first one was with [Andy] and he talked about his journey with a lot of focus on the important factors when it comes to having a successful venture. I found his presentation to be very helpful in a way that it became clearer to me what role the different individuals are supposed to have in a venture. I particularly liked the way he described the entrepreneurs as being the one's in the driver seat contributing to the project with drive and enthusiasm. It kind of boosted me to even more, if possible, try to convince our idea providers that we have the drive and ability to make this a successful venture. From the other two presentations, [Olle and Martha], I tried to take notice of what words and expressions that caught my attention in order for me to be able to sell myself and our idea. I tried to think about this during the mingle session…"

Excerpt 5 gives an example of a socialization process, where John's activities are

translated through his teammates in order to shape their own identities and that of their emerging venture.

Excerpt 5 (debriefing event) : "[John] was the core driving force behind Project Delta – there was no question of his entrepreneurial drive and vigor for the progression of the project. He was quite talented in networking and bringing together key personnel and really understanding the needs of making the business grow. However, he was so caught up in driving the project that it was consuming him. He became increasing reliant on his team-mates, [Mary and Steve], to anchor his activities, help him capture and organize in written and illustrative form the critical needs, next steps, and longer term objectives of the project. We had countless talks through the course of the education, both one-on-one and in a group about how to attempt to balance activities, allow time for reflection and summarization while at the same time increasing efficiency and effectiveness of the project and educational activities."

Discussion and Conclusion

This article attempts to understand which aspects of entrepreneurial identity construction can be facilitated through an action-based entrepreneurship education approach. We argue that identity construction needs to be seen as equally important to entrepreneurship education as content and pedagogy, if the educational objective is learning for the practice of entrepreneurship.

The excerpts provide illustrations of entrepreneurial identity construction. The language students' use and the way they interact with their stakeholders build upon stories, clichés and symbols of entrepreneurship, the entrepreneurial role, the entrepreneurial team, and the entrepreneurial venture. They use these means to construct an identity for themselves, which they can then negotiate with others in order to build legitimacy and recognition in the roles and organization form they aspire to. In each excerpt, students produce visual images and narratives as part of their process of creating the venture.

Excerpt 1 is an example of entrepreneuiral identity construction through visual and oral symbols (Boje and Smith 2010) in the way the student is acting, and then socially secured by feedback from the team. Thus, the student is also working to both gain and then maintain legitimacy in the desired role of 'entrepreneur' (Somers 1994; Williams Middleton 2013).

Excerpt 2 illustrates how students use dialogue and storytelling towards constructing an entrepreneurial identity as an entrepreneurial team. Constructing the identity as the management team of the entrepreneurial firm is enabled through storytelling of actions as a way to legitimize the identity, first towards critical stakeholders of the venture, in the way that the business decisions are presented, and then again in the retelling of the story to a faculty member as illustration of achieved and validated role of 'management team', showing how mentors are used as means towards identity construction (Rigg and O'Dwyer 2012).

Like excerpt 2, excerpt 3 illustrates how students use storytelling with their role-set (Harmeling 2011; Navis and Glynn 2011; Nielsen and Lassen 2012; Smith 2011), which

may include actors exhibiting referent power, to illustrate and negotiate an entrepreneurial identity (Williams Middleton 2013), often by establishing provisional identities (Ibarra 1999) through the emergent process of the venture being formed.

Excerpt 4 also exemplifies how students use role models to help develop provisional identities for the role 'entrepreneur' through access to different presentations by individuals whom have succeed in founding and running a firm (i.e. an 'entrepreneur'), and particularly those whom have previously also attended the education (i.e. entrepreneurial alumni). The students adopt referent power (Martin 1978), building upon the perception of an 'established entrepreneur', and adopt words and expressions as clichés (Down and Warren 2008) in order to help establish an entrepreneurial identity.

For some students, it is difficult to separate the construction of the entrepreneurial role and the development of firm. John, in excerpt 5, is dependent upon his teammates to help structure how he can effectively contribute to the emerging firm. Delegation and organization of tasks potentially falls to different actors in the entrepreneurial team, creating a potential strain between the individual and collective identity. This also illustrates the challenge of balancing between the individual identity towards the entrepreneurial role, and association to the venture in formation, as discussed by Shepherd and Haynie (Shepherd and Haynie 2009a,b).

In entrepreneurship educations, there is potential for building student awareness of how certain episodes are important from an identity construction perspective. Students could learn to recognize and utilize critical incidents/events to their purpose, for example as symbols to be incorporated into the storytelling and negotiated narratives used to gain legitimacy.

An entrepreneurial identity is mainly associated to a professional role – that of the founder of a start-up company – but is also influenced by social norms about the personification of the role. Thus, construction of the entrepreneurial identity can be seen to be dependent upon interaction with critical stakeholders in order to establish legitimacy. Even when focusing on a the identity creation of the venture, we found the importance of narrative and storytelling in identity work, and how this is carried out in interaction with others.

Constructing entrepreneurial identity poses different challenges/hurdles for each individual and for classes of individuals. Each person will likely confront his or her own internal dialogue about how the entrepreneurial identity fits with his or her social groups' expectations and demands. In addition, each will have to engage in negotiations about the legitimacy of his/her entrepreneurial identity with these social groups, and others. We propose that educational experiences which call attention to such challenges, label them as manageable, and provide opportunities for aspiring and acting entrepreneurs to reflect on, prepare for, and negotiate around such experiences, can increase ability to construct an entrepreneurial identity.

Our study of an action-based entrepreneurship education found that entrepreneurial identity construction can be facilitated using a 'learning *through*' approach, where

construction of the organization (and the organizational identity) is done in parallel with the entrepreneurial identity. Previous research has shown the connection between the individual entrepreneur and the firm (for example see Bruyat and Julien 2001; Fauchart and Gruber 2011; Mugler 1990), and builing upon this we propsose that within an action-based entrepreneurship education, where learning *through* is the approach used, the identity construction of the individual and the venture are often intertwined. The development of the 'story of the firm' is constructed in parallel with the individual's entrepreneurial identity, in that both the individual role and the concept of the firm are negotiated and legitimized through interaction with 'significant others', such as key stakeholders or shareholders. This intertwined identity construction is in part based on the learning *through* approach of action-based entrepreneurship education which use the creation of a real-life venture as the learning vessal. There is need to further research how action-based entrepreneurship education can and should support joint construction of the individual identity of the entrepreneur and the organizational role of the venture being found.

Entrepreneurial identity construction requires further investigation and discussion. It is pivotal for both faculty and students of entrepreneurship educations to strategically work with identity construction as students transition into an entrepreneurial career. Creating a learning space (Kolb and Kolb 2005), including time for individual and collective storytelling and reflection, allows students, and surrounding stakeholders, to make sense of experiences in relation to entrepreneurial identity construction. Suggested learning space settings already exist within various action-based entrepreneurship educations (Barr et al. 2009; Meyer et al. 2011; Ollila and Williams Middleton 2011; Rasmussen and Sørheim 2006), but these settings have not specifically been investigated to explore how entrepreneurial identity is constructed in situ during student tenure. For example, additional research needs to be done to investigate the ways in which the three components of effectual space (Sarasvathy 2008), associated to the decision making logic of expert entrepreneurs through the theory of effectuation (Read et al. 2003; Sarasvathy 2001), are or may be incorporated in the learning space of action-based entrepreneurhsip education, and how this may impact identity construction (Nielsen and Lassen 2012). These are principles areas for future research.

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