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## Lessons from entrepreneurial failure through vicarious learning

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### ABSTRACT

Despite its widespread occurrence, the topic of failure is barely addressed in entrepreneurship education. Consequently, students are given an incomplete and unrealistic picture of the complexity of being entrepreneurs. This study explores the pedagogical potential of introducing vicarious learning about failure in educational programs rather than focusing solely on starting, growing and success. Taking a qualitative approach, this study examined students' reflective reports written after an interview with an entrepreneur on their experience of failure. Using concepts emerging from these reports and theoretical constructs, it was established whether and how students drew lessons and reflections from the failure stories. The findings show that interviewing and reflecting about the experiences of entrepreneurs allow for vicarious learning from failure, yet without students having to experience it themselves. The lessons learned and the reflections feed each other in a continuous loop. Students recognized that entrepreneurship involves trial and error instead of one straight road. Important lessons include the importance of adaptable behavior, access to key resources, insights in business development and the benefits of networking. Hence, this article contributes to the pedagogy of entrepreneurial education and provides initial suggestions for educators to introduce vicarious learning about failure as a topic in their programs.

### RÉSUMÉ

Malgré sa fréquence élevée, le sujet de l'échec est à peine abordé dans l'enseignement de l'entrepreneuriat. En conséquence, il est communiqué aux étudiants une image incomplète et irréaliste de la complexité d'être un entrepreneur. Cette étude explore le potentiel pédagogique de l'apprentissage par procuration sur l'échec dans les programmes éducatifs, plutôt qu'une focalisation seulement sur le démarrage, la croissance et la réussite. En adoptant une approche qualitative, l'étude a examiné les rapports de réflexions rédigés par les étudiants à la suite d'un entretien avec un entrepreneur, centré sur son expérience de l'échec. À l'aide de

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concepts émergeant de ces rapports et de constructions théoriques, la manière dont les étudiants tiraient des leçons et des réflexions des récits d'échec – si tel était le cas – a été établie. Les résultats montrent que les entretiens et la réflexion sur l'expérience des entrepreneurs permettent un apprentissage par procuration concernant l'échec, sans pour autant que les étudiants aient eux-mêmes à vivre un échec. Les leçons apprises et les réflexions se nourrissent mutuellement dans une boucle continue. Les étudiants ont reconnu que l'entrepreneuriat a pour implication des épreuves et des erreurs, plutôt qu'une ligne toute droite. Parmi les leçons apprises majeures, citons l'importance des comportements adaptatifs, l'accès aux ressources-clés, les connaissances en matière de développement commercial et les avantages du travail en réseau. Ainsi, cet article contribue à la pédagogie de l'éducation sur l'entrepreneuriat et fait des suggestions pour les enseignants afin qu'ils introduisent l'apprentissage par procuration sur l'échec en tant que sujet à aborder dans leurs programmes.

## 1. Introduction

Entrepreneurship education (EE) has become an increasingly prevalent global phenomenon across higher education institutions (HEIs). Its association with economic growth, changes in the labor market and the increased (sometimes rock-star-like) popularity of contemporary entrepreneurs has contributed to the rapid growth in supply of and demand for EE in HEIs.

Conspicuously, EE generally focuses on aspects of entrepreneurship related to the fostering of startups, growth and success. However, failure (defined as adverse situations leading to layoffs), the closing of a division or even termination of a venture are more common than success (McGrath 1999; Politis and Gabrielsson 2009). Yet, to date, few studies have looked at entrepreneurial failures (Ucbasaran et al. 2013), and even less attention has been paid to applying the relevant findings to EE.

When students do not address the issue of failure in EE, they are prevented from developing a realistic and balanced perspective of entrepreneurship. Without understanding the prevalence of failure (as well as how to prevent it or mitigate the ensuing consequences), students are sub-optimally prepared for an entrepreneurial career (Bolinger and Brown 2015). Learning how to prepare for and deal with adversity and failure is likely to reduce psychological, social and economic losses, and enable entrepreneurs to recover faster and re-embark on their entrepreneurial path (Shepherd 2004).

With a lack of examples from current EE practice, there remains the question of how to include this issue in the curriculum and, more importantly, how to do so in a way that empowers students when confronted with adversity and failure, without reducing their future entrepreneurial intentions (Ng and Jenkins 2018; Wennberg, Pathak, and Autio 2013).

This study addresses this question by exploring how vicarious learning, i.e., learning from the experiences of others (Peterman and Kennedy 2003), may be implemented effectively in the context of EE. Vicarious learning seems especially suitable for learning from failure as it enables individuals to adjust their behavior based on

the learning experiences of others, instead of having to go through risky trial-and-error learning themselves.

In particular, this study contributes to the scientific debate about EE in general (Matthews 2018; Nabi et al. 2017) by moving beyond the traditional focus on starting, growing and succeeding in a particular area, and by incorporating strategies for dealing with and becoming resilient in the face of adversity and failure. Specifically, the study expands the scant literature on learning from failure (Bolinger and Brown 2015; Shepherd 2004) by examining the lessons that students have learned from interviewing entrepreneurs about their ‘experiences of failure’.

Insights identified in the reflective reports of 112 students indicated that students develop a greater sense of realism and are less inclined to view the running of their own business venture through ‘rose-tinted glasses’, as a result of interviewing entrepreneurs about their previous experiences of failure. Furthermore, the findings indicate that learning about failure vicariously does not have a negative impact on students’ ideas and plans to start a venture of their own in the immediate or more distant future (Bae et al. 2014), but rather it increases students’ self-efficacy (Bandura 1977; Pihie and Bagheri 2013) as they understand that measures can be taken to prevent failure or deal with its consequences. This is important as some lecturers may be worried about the consequences of introducing the topic to their students, as is evident from a quote from a lecturer, after being invited along with his students to one of our sessions: ‘My students are well on track with their business plans; talking to them about all the things that could go wrong may scare them off from actually implementing their plans.’

The rest of this paper is organized as follows: Firstly, a review of the literature on entrepreneurial failure is linked with teaching practices used in EE. After this, the literature on vicarious learning is used as a framework to analyze students’ reactions to stories of entrepreneurial failure. Next, a section about the methods of analysis is presented, followed by a section on the main results, with illustrative quotes. This paper concludes with a discussion of these findings, recommendations for entrepreneurial education modules, limitations and suggestions for further research.

## 2. Theoretical background

Recently, the topic of entrepreneurial failure has gained ground in scientific and popular debates about entrepreneurship (Walsh and Cunningham 2016). The still scant literature mainly addresses the following issues: conceptualizations of failure (Jenkins and McKelvie 2016; Khelil 2016); failure attribution (Cardon, Stevens, and Potter 2011; Franco and Haase 2010); causes and consequences of failure (Ucbasaran et al. 2013); failure attribution and sensemaking (Mandl, Berger, and Kuckertz 2016; Mantere et al. 2013); the stigma of failure (Simmons, Wiklund, and Levie 2014); and learning from failure (Cope 2011; Shepherd 2003).

One key finding from these studies is that failure is highly prevalent and may occur at any age and stage of a venture’s development (Thornhill and Amit 2003). A further insight of particular relevance is that would-be entrepreneurs generally do not address failure as part of their formal education. Consequently, many are unable to

identify early warning signals (Bisson and Diner 2017; Lang and Schmidt 2016). Even worse, entrepreneurs are generally late to react or seek professional advice when facing adversity, decline and crisis (Klopotan, Zoroja, and Meško 2018; Martens and Alvarado Valenzuela 2019).

Studies have shown that learning from failure is possible (Fang He et al. 2018; Politis and Gabrielsson 2009; Singh, Corner, and Pavlovich 2012). Notably, it has been shown that entrepreneurs who experience failure themselves develop certain behaviors related to overcoming not only the financial and emotional costs but also the interwoven relational costs. However, such learning can only take place under certain conditions, such as deliberate reflection (Pretorius and Le Roux 2011). Most of these studies, however, refer to learning from own lived experiences, whereas it would be better if entrepreneurs (especially prospective entrepreneurs) could learn about (and from) failure without actually having to experience this firsthand (rather, in controlled environments such as educational settings).

### 3. Failure in EE

Despite the (slowly) growing level of attention paid to entrepreneurial failure in scholarly debate, it remains an under-addressed issue within both literature and EE practice. Shepherd's (2004) study of teaching students exploring failure and grief, is one of the exceptions. He stresses the need to invoke emotions and urges educators to try and integrate the topic of failure into programs by inviting guest speakers, reinterpreting case studies and introducing role-playing and/or simulation games. Surprisingly, these findings have yet to find their way into the (scholarly) debate about EE and its practice. In fact, Shepherd (2004) called upon researchers to create relevant teaching materials and test the impact of implementing corresponding changes to the curriculum. Yet, thus far, educators have mainly transposed ideas from the popular press, introducing concepts such as 'fail often, fail fast' (Babineaux and Krumboltz 2013; Brown 2015), but providing their students with few tools to cope with failure (Tobak 2017).

The lack of attention paid to entrepreneurial failure in EE may have several causes. Firstly, the positive rhetoric about entrepreneurship in the media, in policy reports and in scholarly articles (Gonul and Litzky 2018) may cause educators to simply overlook the downside when designing their courses. Furthermore, shame and stigma associated with entrepreneurial failure often prevent entrepreneurs from talking openly about it (Simmons, Wiklund, and Levie 2014). In a similar vein, as explained by Hebl, Tickle, and Heatherton (2000), others (including educators) may be equally reluctant to address this issue due to the social nature of stigma and fear of being associated with it. Another explanation is that educators struggle to integrate lessons about failure in a way that does not compromise the entrepreneurial intentions of their students (Nabi et al. 2017; Nabi et al. 2018; Wyrwich, Stuetzer, and Sternberg 2016). The absence of business cases or educational tools about entrepreneurial failure leaves educators without templates to model their own programs on. To bring failure into EE, we explore the impact of using vicarious learning as a learning method for students in HEIs.

#### 4. Vicarious learning from failure

Reviewing the broader literature on pedagogy in EE shows that, in recent years, student-centered or action-based learning has become an increasingly dominant approach for developing entrepreneurial competencies and enhancing entrepreneurial intentions (Hägg and Gabrielsson 2019; Järvi 2015; Neck, Greene, and Brush 2014). In particular, experiential approaches in which students become immersed in real-life challenges or engage in setting up their own ventures – albeit just for the duration of the course – have gained in popularity (Lackéus and Middleton 2018; Zimbardo, Taylor, and Houser 2016). However, such approaches are less than ideal for broaching the subject of entrepreneurial failure as it would be undesirable (in educational settings) to burden students with the financial and emotional costs of an actual experience of failure. Furthermore, while failure is likely to occur at any stage of an entrepreneurial career, it would be extremely difficult to ‘plan’ for an event of failure within the timeframe of an entrepreneurship program.

Learning from other people’s experiences may be the next best option. According to Bledow et al. (2017), ‘[L]earning from others vicariously may be especially useful in the case of failures because learners can then evade similar failures and adverse personal and organizational consequences.’ (39). Indeed, within EE, such vicarious learning is part of the pedagogical repertoire (Peterman and Kennedy 2003). It is a social form of learning that supplements direct personal experience and enables individuals to learn from a wider scope of experiences without having to go through a lengthy experiential process of trial and error themselves (Bandura 1977). This not only speeds up learning but also reduces the costs associated with experiential learning (Hoover, Giambatista, and Belkin 2012; Saadat 2015). By tapping into an entrepreneur’s memory of an event, students can increase their knowledge of failure by gleaning this from someone’s else experience (Saadat 2015); unfortunately, easily implementable simulations are currently unavailable (Bagheri, Alinezhad, and Sajadi 2019; Fox, Pittaway, and Uzuegbunam 2018).

In vicarious learning, it is important to address the misfortunes or external situations that result in adversity or failure while also being open about poor practices or avoidable mistakes. This does not have to result in a gloomy perspective but may, in fact, take a more positive approach by addressing issues from the perspective of what might be done to improve a certain situation, i.e., emphasizing the lessons to be learned and formulating desirable causes of action for the future (Jones and Masika 2020). As such, this method is, in some ways, similar to that of appreciative inquiry (Cooperrider, Whitney, and Stavros 2003). In both methods, stories are used to consider future actions, adopting a learning approach from the tradition of storytelling. One of the big differences is that where appreciative inquiry uses stories to delve into positive events and actions to be replicated in the future, vicarious learning is open to identifying and learning from all the experiences that the teller is willing to share.

Vicarious learning from failure is likely to enhance students’ knowledge level by providing them with a more balanced picture (Fayolle 2018; Mwasalwiba 2010). Furthermore, when experienced entrepreneurs point out critical factors and provide students with tips and tricks to avoid or reduce the costs of failure, vicarious learning may also enhance skill building. Fostering entrepreneurial intentions through

vicariously learning from failure could, however, turn into a double-edged sword; students with more pronounced startup intentions may be more intrinsically motivated to learn from the stories shared by interviewees (Ryan and Deci 2000), but these stories may, in turn, negatively affect the startup intention if they overwhelm and scare off would-be entrepreneurs. The key is therefore to reflect upon these stories so that they help build a sense of empowerment and increase students' self-efficacy (Bandura 1977; Chan and Lam 2008).

In the EE literature, several approaches to vicarious learning have been addressed. Firstly, internships have constituted a key way to foster vicarious learning in (entrepreneurship) education (Chou et al. 2017). Such internships may allow interactions with the founder or manager, enabling students to learn from experiences that happen daily. However, entrepreneurs are unlikely to be willing to also supervise interns while having to deal with failure themselves. Thus, internships might not be an appropriate way to teach students about failure in a structured manner.

Another way to induce vicarious learning is through mentors, and this practice has become widespread in experiential forms of entrepreneurship education (Babatunde and El-Gohary 2019; Lutz et al. 2015; Nabi, Walmsley, and Akhtar 2019). So far, however, studies of mentoring in EE have not addressed whether dealing with adversity, crisis and failure is discussed in mentor-mentee relationships. Because of the success bias and stigma of failure (Hebl, Tickle, and Heatherton 2000), educators are likely to select 'successful' entrepreneurs as mentors, while mentors in general may shy away from discussing the topic of adversity unless the issue is explicitly put on the agenda by the educator. Hence, while it seems likely that mentors may offer a way for students to learn from failure, little evidence is available regarding how to make this work.

A third mechanism to foster vicarious learning is personal storytelling. According to Myers, Tollerud, and Jeon (2012), stories facilitate the development of intrinsic motivation and learner engagement because storytellers 'use their whole selves, creating graphic descriptions, augmented by their use of nonverbal signals, to paint mental pictures' (2). Indeed, in EE, bringing entrepreneurs into the classroom to share their stories with students is already common practice (Liu, Ma, and Li 2019; Mwasalwiba 2010). While many educators might be tempted to mainly bring in successful entrepreneurs, others understand the benefit of sharing stories of success as well as failure, in the classroom (Laviolette, Lefebvre, and Brunel 2012; Lockwood et al. 2004; Shepherd 2004). While some argue that sharing failure stories helps to prevent unwanted outcomes (Laviolette, Lefebvre, and Brunel 2012), others argue that failure stories can increase entrepreneurial intentions, as long as there is a positive outcome in the end (Lockwood et al. 2004; Minniti and Bygrave 2001).

Besides bringing entrepreneurs into the classroom to tell their story, students can also be encouraged to seek entrepreneurs who are willing to share their story on a more personal, one-to-one basis or in a small group setting (Bell 2015; Sherman, Sebora, and Digman 2008). Indeed, Sherman, Sebora, and Digman (2008) found that interviewing an entrepreneur provided students with some of the most realistic previews of entrepreneurship, even above preparing a business plan.

Overall, vicarious learning seems to provide a way forward when it comes to learning about failure in EE, with personal storytelling and the sharing of 'failure stories'

apparently offering a suitable method for students to develop a more balanced view of entrepreneurship and to learn lessons about how to deal with failure when confronted with it.

## 5. Methodology

The goal of this study was to establish whether (and how) students at HEIs use vicarious learning when drawing lessons from entrepreneurs' experiences of failure, and to identify the extent to which students are able to translate these lessons into ideas for action in their own future ventures. Given the under-explored nature of this issue, this study is based on a qualitative inquiry approach, meaning that it is guided by emerging theoretical concepts, while attention is given to the nature and diversity of the phenomenon under investigation, as well as to exploring how this comes about (Denzin and Lincoln 2008; Elliott and Timulak 2005).

According to various authors, including Ghaye (2007) and Shaw, Kuvajja, and Suto (2018), reflective reports are a valuable basis for assessment. They therefore served as the basis for the current investigation. The empirical data for this study consisted of the reflective reports produced by students after interviewing an entrepreneur about his or her experience of failure. The analysis of these qualitative data was guided by inductive coding, and themes were developed based on the objectives of the study. Following the approach adopted by Gioia, Corley, and Hamilton (2013), the data were first inductively coded to identify a set of first-order concepts, which were consequently assigned to categories, forming the basis for the second-order concepts.

## 6. Empirical context

This study is part of a larger research program in the Netherlands on entrepreneurial failure and recovery, the aim of which is to draw lessons for (future) entrepreneurs, policy-makers and SME advisors, in order to reduce the economic and social costs of entrepreneurial failure and speed up entrepreneurial recovery. The program has been running since 2017 and has a teaching component as well as a research one. Following Bledow et al. (2017), a failure story is defined as one in which the 'protagonist reports the erroneous course of action that eventually led to a negative outcome' (41). These stories, compiled in a database of failure (and recovery) stories narrated by entrepreneurs, involve insolvency, bankruptcy and liquidation of the firm, or situations where multiple employees had to be laid off or a business unit was closed due to poor performance.

Participation in the educational plug-in module confronts students with entrepreneurs' real-life experiences (recounted to students in their third year of a bachelor's (elective) entrepreneurship course)<sup>1</sup>, and the students are actively involved in the collection of these stories. The idea is to provide an up-close, personal experience through which students can learn lessons about failure, but without them having to live through entrepreneurial failure themselves. To this end, the principal researchers (who were not otherwise engaged as lecturers on this course) developed a mandatory (plug-in) module on failure and recovery. The course lecturers' openness to including



the module on failure and recovery in their EE program shows a visionary approach to providing practical tools for students.

Accordingly, the module for the academic year 2018–2019 included the following:

- A lecture in which facts and figures about entrepreneurial failure, as well as causes and consequences, were discussed.
- A workshop on how to conduct an interview, in which attention was given to topics such as identification and selection of interviewees, as well as dealing with sensitive topics.
- A (graded) individual assignment, requiring students to find an entrepreneur (with a story of failure), interview him or her and write a reflective report, discussing the lessons learned from the entrepreneur and considering the implications for their own future ventures.

Furthermore, a ‘toolbox’ was set up to support the students performing this assignment. This toolbox, which was digitally accessible, included a repository of relevant reading materials on the topic of entrepreneurial failure, as well as practical guidance on how to identify, select and approach a suitable entrepreneur, and a detailed interview protocol with structured ‘open’ questions. Each student received a document containing guiding questions for the reflective reports. Finally, the researchers and lecturers guided discussions in class about the topic of entrepreneurial failure and gave students advice on how to search for someone to interview.

## 7. Methodology for data analysis

A four-step approach was used for data analysis. Firstly, the reflective reports were anonymized to protect the identity of the students, the entrepreneurs interviewed, their networks and their companies, while the original files were archived, respecting privacy-related procedures.

Secondly, the anonymized files were loaded into MAXQDA, and each file was inductively coded around two main aspects: a) identifying the lessons that students learned from the entrepreneurs, and b) classifying the ideas translated into action for students’ ventures.

Based on an initial batch of 20 reflections, concepts related to episodes of entrepreneurial failure emerged, such as teamwork, perseverance, decision-making, equipment and others, and these served as first-order concepts, which we consequently assigned to categories, forming the basis for the second-order concepts (Gioia, Corley, and Hamilton 2013), for example, aspects related to finances, company aspects, the staffing situation and more. Figures 1 and 2 both provide a scheme listing these first- and second-order concepts. One of the authors focused on the lessons learned (Figure 1). ‘Lessons learned’ refers to the advice that the entrepreneur shared with the student about managing the company, running into problems and dealing with these. Tips covered a variety of issues, including the importance of seeking help sooner rather than later, creation of financial safety nets and team composition.

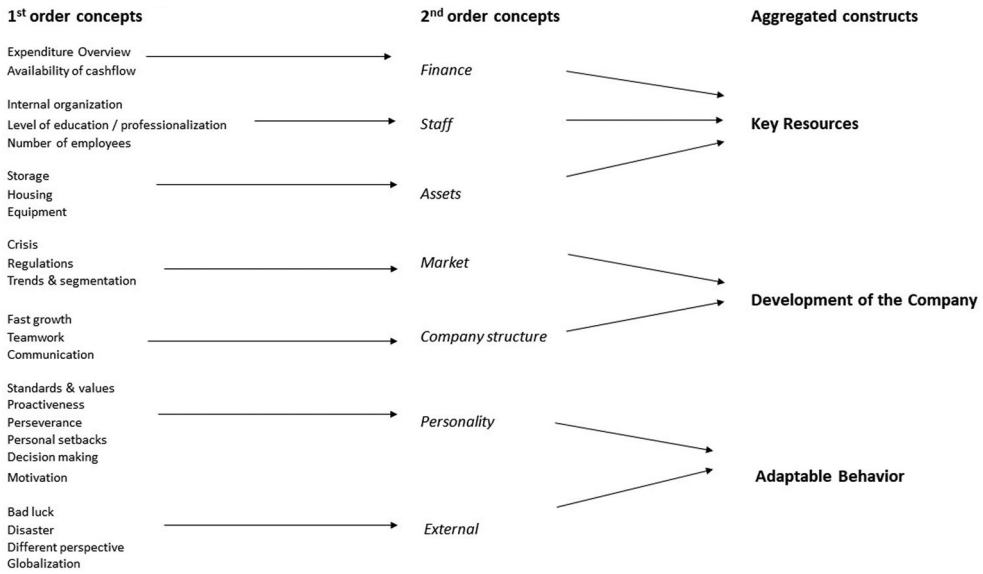


Figure 1. Constructs for the 'lessons learned' from the entrepreneur.

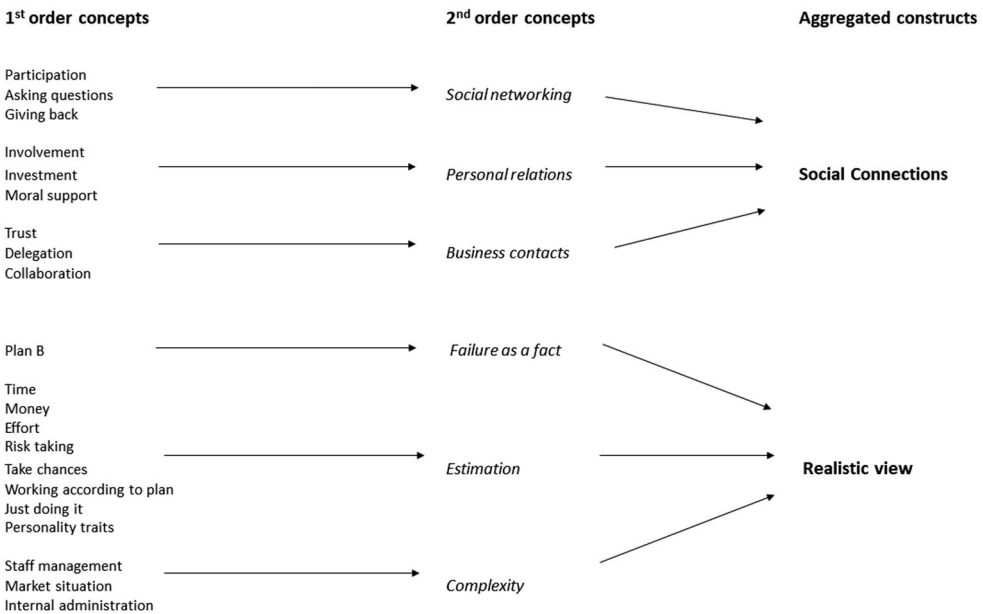


Figure 2. Constructs for the students' reflections.

Another researcher looked at the reflections (Figure 2) to identify students' understanding of what entrepreneurship means and the influences on their actions and plans. The term 'reflections' refers to the constant and continuous process of thinking, analyzing, observing and reinterpreting activities and tasks (Abdel-Hack and Helwa 2014; Mortari 2012). Evidence thereof was sought in the comments made by students with respect to changes in their view of what entrepreneurship means having

conducted the interviews; some example ideas referred to the value of networks, being resilient or the importance of being prepared.

Once their task was completed, the researchers double-checked each other's work to increase the validity of the coding process. A third author reviewed the different stages of the coding system and selection of the quotes, providing an outsider perspective, as suggested by Gioia, Corley, and Hamilton (2013), which gives higher validity to the coding process.

From the first- and second-order concepts of the lessons learned, the researchers identified three main constructs in accordance with the literature: key resources in times of trouble (Ucbasaran et al. 2013), development of the company in the market (Hebl, Tickle, and Heatherton 2000) and adaptability as a behavior (Cope 2011). From the concepts derived from students' reflections, two main constructs were identified in accordance with the literature: the role of social connections (Lans, Blok, and Gulikers 2015) and a realistic view of entrepreneurship (Bolinger and Brown 2015; Sherman, Sebor, and Digman 2008). The second-order concepts became a middle step, between the theoretical concepts of learning processes and the student reflections.

Furthermore, two additional codes named 'intention' and 'planned actions' were added. Intentions were defined as the self-expressed plans and ambitions of students to engage in entrepreneurial activities in the future. Not all students were equally explicit about their intentions. Planned actions (Bandura 1980) refer to situations where students mentioned concrete steps to implement in their own (prospective) venture in order to avoid failure or reduce the associated costs. A distinction was made between actions that were to be implemented straight away, and actions that resembled wishes for the future. The verb types from the reflections were used to code the concreteness of students' actions. Such planned actions included hiring a financial advisor or the aim to set aside a sum of money to deal with drops in demand.

## 8. Results

### 8.1. Data used for the study

A class of 124 students participated in the module described above, during the academic year 2018–2019. Each of these students (later coded from s1001 to s1124) submitted an audio recording and transcript of the interview they conducted, as well as a reflective report (consisting of between 1200 and 2200 words). For this study, the interview audiotapes and transcripts were only used as background material, when issues in the reflective reports were not clear. After the course, each of the 124 responses was checked for transcript accuracy and overall quality. Twelve packages were excluded from further analysis as they did not cover all topics included in the protocol, because the writing was too sloppy to make sense of the students' arguments, or because the incidents described in the reflection did not actually classify as a failure but rather a minimal or highly temporary instance of adversity. Hence, 112 reflective reports were included in the analysis.

All reflective reports were written in Dutch and provided the following information: demographic details about the entrepreneurs interviewed and their ventures; a summary of the failure stories and lessons learned; and the students' intentions to

implement the lessons in the business plans they developed as part of the course requirements. For this study, the selected quotes were translated into English by the researchers.

## 8.2. Findings

Students wrote their reflective reports based on the stories that they collected from entrepreneurs who had experienced an event of failure. For each of the topics, quotes are presented to illustrate the arguments. To make sense of some quotes, it is important to recognize that the students varied in terms of their own entrepreneurial intentions, i.e., their self-expressed plans and motivation to start their own venture at some point in the future. Some students indicated that they already had concrete plans to start a venture or to see this course as the first step towards this end. Others indicated that they intended to start a business at some point in their career but were not yet sure about the timing. Others saw the course as a chance to explore whether entrepreneurship was something for them.

Almost all students reflected on the fact that because of the interview, they now realized that failure would be an integral part of their own entrepreneurial journey. It is noteworthy the recognition that setting up a venture of their own would require more discipline and hard work than they had previously thought, thus indicating that they understood much better that failure can be part of any entrepreneurial path. As an example, one student, with entrepreneurial ambitions but no concrete business plan yet, mentioned:

‘What I [will] bring to my own company is that you just have to do it and not be afraid of failing. Just try it, and if it doesn’t work, you try again.’ (s1020)

Certainly, there are reports where students indicate that the interview about their entrepreneur’s failure had not changed their ideas about and/or plans to start their own venture in the future. These students typically indicated that having conducted the interview, they now intended to engage in more extensive market research than they had previously anticipated. In addition, some had come to realize that being an entrepreneur does not mean they have to do everything on their own, but it is more a case of using their network for practical, moral and financial support. The quote below reflects what this particular student learned after talking with an entrepreneur who had started a new company after becoming insolvent (and who now had nine offices):

‘When I start a company or business, I will first ensure that I have prepared a good plan and have done sufficient research. I think this is important because you shouldn’t just [go ahead and] do something [without sufficient] preparation. If I have a good plan, I will first ensure that I have the right people in my network. I want to [take my time] setting up the company and not immediately start too big.’ (s1012)

Indeed, many students indicated that they had developed a better understanding about the nature of and requirements for entrepreneurship, providing them with a more realistic picture of what being an entrepreneur entails as it is shown in the following sections about the lessons and the reflections.

### 8.3. Lessons learned

The first guiding topic of vicarious learning corresponds to the lessons shared with the students. The lessons learned from an event of entrepreneurial failure also included tips about running a venture in general. The students often reported that the entrepreneurs provided advice on aspects of daily life relating to work, family or studies, when recovering from big mistakes. Focusing on the lessons learned from the entrepreneurs' stories, five first-order concepts were found to repeatedly materialize during the interviews.

The concept of **motivation** (referred to in fifty-four cases) is linked to the second-order concept of personality and relates to adaptable behavior. Students specifically referred to the entrepreneur's lesson about acting with focus, passion and energy, and the fact that they encouraged the students to create a certain entrepreneurial lifestyle that guided their continuous work and search for opportunities. The data showed that staying motivated to make a turnaround allowed entrepreneurs to keep believing in themselves and their own entrepreneurial ideas; to keep their impetus high and continue enjoying the creation of new entrepreneurial opportunities.

**Perseverance** (which was reflected upon in forty-eight cases and is also linked to the personality construct) is associated with reflective remarks about the need for persistence, stamina and resilience but also ambition and clear, achievable goals (or a clear idea of the steps that need to be taken to achieve these goals). Students, for instance, described the entrepreneur's experience as being full of setbacks that needed to be addressed, and solutions that were required to address particular problems. Many students highlighted the fact that the entrepreneur told them to be persistent and aim for a venture based on ideas and opportunities, rather than as a lifestyle choice. While such advice is not only relevant in the context of failure (and more behavioral than personality-based), students seemed to take this advice as something they needed to work on, as can be seen in the following quote:

'During the interview, it was clear that as an entrepreneur, you need a lot of stamina. While starting a business, a lot of things can go wrong, and you have to persist. Not just during startup but also in the following years, you will be confronted with situations that are not easy, and you should not give up but believe in yourself.' (s1014)

Thirty-five students reflected on the lessons that entrepreneurs shared about the **availability of cashflow**, which is linked to the second-order construct of finance as one of the key resources. In their reflections, they referred to the lessons that entrepreneurs shared with them about financial aspects of starting and running a business. Several entrepreneurs pointed to the risk of overspending as a root cause for bankruptcy or debt, and other entrepreneurs focused on the role of investment. Furthermore, touching upon the topic of liquidity, entrepreneurs indicated that they had made the mistake of not having a financial buffer, or they had taken out loans that they could not repay. Moreover, several entrepreneurs connected the issue of liquidity to the concept of networks and collaboration because stronger ties allow for less strict payment terms, and creditors may be willing to come to an arrangement in the case of (temporary) adversity. For example, some entrepreneurs revealed that problems with external investors in certain industrial sectors had contributed to their demise. One entrepreneur had a growing company with 13 workers but had been

forced to shrink it to keep the company in the market. He said that investment is not only about money but finding someone who shares the same vision of the venture:

'It was often said during the interview that you really must pay attention to investors who fit your company best and who can also offer you more than just financial support.' (s1020)

**Communication** was mentioned in thirty-one reflective reports and refers to the lesson of maintaining open channels of communication in entrepreneurs' networks, for example, when approaching the family, when asking for advice or when keeping good relations with other entrepreneurs and within a team. In their reports, students reflected upon the lessons that entrepreneurs shared specifically about the formation of teams in the structure of the company and how communication within a team is essential in order to avoid failure. Specifically, entrepreneurs told the students to pay attention to clearly defined roles and responsibilities to avoid future problems. One student wrote the following after talking to an entrepreneur who had co-founded a company in the construction sector but stopped for good after serious problems:

'If you set up a company with someone, it is important to agree [on important things] and to communicate well with each other.' (s1034)

Students also mentioned the need to ensure that (founding) team members update one another on a continuous basis. In fact, several entrepreneurs indicated that problems within the team were at the root of the problems and failures they had experienced.

Finally, the topic of **standards and values** (which is linked to the personality construct) was addressed by a considerable number of entrepreneurs (reflected upon in thirty students' reports). As noted from the students' reports, the interviewed entrepreneurs stressed the importance of staying true to their own values, even during tough times. The reflective reports indicated that the interviewed entrepreneurs had certain professional and personal priorities that were of the utmost importance to them, which were disturbed as a result of the entrepreneurial failure they had experienced. Many students were advised to protect their work-life balance and maintain a positive attitude towards life in general, as evidenced by this quote:

'For me, it would be very useful to work with someone else, so the time can be divided, and I have some time left for my family.' (s1050)

At the same time, the value system that guides entrepreneurial behavior can also be linked to other aspects of a venture, for example, producing fair products, ensuring transparency within the company and being honest with clients. The lesson referred to in the quote below (from an entrepreneur who became insolvent after more than 25 years in the construction industry) is to stand by your moral values while saving what you can of the company:

'The key is, as he repeatedly stressed, staying honest and transparent, always; particularly when you are in dire straits and facing overdue payments, because it is from these moments that a lot of unrest originates. By being transparent, one can avoid a lot of unrest. (s1025)

#### 8.4. Students' reflections

The second aspect of vicarious learning is use of the lessons reflected upon. Students wrote about how their views had changed in terms of the meaning of entrepreneurship and the consequences of embarking upon this path. We selected the top five first-order concepts, according to their occurrence in the students' reflection notes, as follows:

- Participation (105): part of the second-order concepts relating to social networking, which belongs to the construct of social connections.
- Market situation (65): part of the second-order concepts relating to complexity, which belongs to the construct of a realistic view.
- Personality traits (62): part of the second-order concepts relating to estimation, which belongs to the construct of a realistic view.
- Asking questions (53): the same construct as participation.
- Moral support (45): part of the second-order concepts relating to personal relations, which belongs to the construct of social connections.

The concept of participation in social connections was mentioned the most, with students affirming that becoming an entrepreneur involves working with other like-minded people and keeping good relationships with them. To prevent failure, entrepreneurs suggested searching for the right people to work with and actively engaging in creation of long-term networks. In the case of failure, one entrepreneur (with more than 20 years' experience in retail and who had around 40 workers) emphasized the importance of finding the right partner, staff and being proactive when reacting to uncertainty. The student wrote:

'It's an ideal situation, starting a business with someone else, because you can talk with each other, but after the entrepreneur's story I have come to realize that you really have to think about it. It's also very important, when you set up a company with someone, to agree on things and communicate well.' (s1034)

In addition, multiple students indicated that because of their interview, they had come to realize that they needed to engage with their network and their current contacts in order to prevent entrepreneurial failure. One student realized that involving social connections could work well for his future:

'I already enjoy talking to lots of people and getting to know [them]. Networking is something I can do well. Through the interview with this entrepreneur, I'll do even more to expand my network. I think this will come in handy later, especially if I contact several entrepreneurs. I would like to learn from them what potential pitfalls and opportunities there are.' (s1036)

The following concepts of market situation and personality traits are clustered into the same aggregated construct of a realistic view. Students reported having become aware of the risks involved in events of entrepreneurial failure. They wanted to pay more attention to the situation of the market: consulting target consumers, designing and testing products, and devising a marketing plan.

We noted that, with several exceptions, the students generally asserted that their interview with an entrepreneur made them more aware of what to expect and how to

prepare for failure. As a general tip, entrepreneurs suggested cherishing the freedom inherent in self-employment (e.g., being able to make their own decisions), especially when it came to hard work and step-by-step actions. Words such as ‘satisfaction’ and phrases such as ‘going out of my comfort zone’ were mentioned in the lessons. One entrepreneur (qualified at higher education level), who had a small international business and continued after having serious financial troubles, made an impact on one student:

‘Entrepreneurship, for me, means freedom, creativity, hard work, failure and recovery, satisfaction, stepping out of your comfort zone and being successful in my [own] way.’ (s1103)

Additionally, the theme of asking questions and getting moral support was shared as a lesson connected to the capacity of finding the right people in rough times. For instance, the students now realized that they might need to seek help when confronted with adversity, whether from external advisors, family or other entrepreneurs. Asking questions was recognized as being useful in order to avoid entrepreneurial failure when looking for help and answers in someone else’s network or when finding answers written in previous agreements.

‘What I would do differently is to ask more than just my friend [in order] to find honest answers to my questions and concerns. I believe that it is good to receive criticism if you can do something with it. If you ask your clients [often enough], you always get to a better point than when you started.’ (s1084)

The aspect of moral support was identified in the reports, with students stating that they were more open to supporting others in times of trouble; more open to creating an emotional rapport with other people and maintaining bonds of trust which would enable them to share personal and business-related problems. Ultimately, students still realized that it was down to them to create such a scenario of support and to combine this with their own efforts to resolve particular problems. One student wrote the following after talking to an entrepreneur who continued his financial services company after encountering serious troubles:

‘I would ask for support from people in my future networks. I would leave family out, but [they would still be there] for mental support. I would ask for help from people in my future network, especially from close business relationships. But I would prefer to solve everything by myself, without bothering others.’ (s1009)

### **8.5. Putting vicarious learning into action**

To assess the extent to which students were able to translate their process of vicarious learning into action, we examined the reflections regarding planned actions in relation to students’ own (future) business. Despite being asked to explicitly state their plans in the reflective report, most students were brief and vague when referring to future plans. Ten students were able to describe concrete steps or actions, and indicated the certainty that they would carry them out. Another 30 quotes were identified, where students stated their aim to do something in the future.



Concrete actions included activities such as setting money aside and working on their internal team or external network. After talking to an entrepreneur in the health sector who went bankrupt, one student wrote the following:

'From now on, I will spend a lot of time on the people I know, to look for opportunities. I will also cover my risks with insurance policies for myself and my staff and will create a financial safety net to support me.' (s1003)

Other actions involved repetition of tasks already completed when students wrote their business plans, or further discussion of specific aspects of their venture, in order to prevent possible failure. The lessons from an entrepreneur whose company had had trouble with prototypes were therefore taken quite literally, and the student knew what action would be needed to take to prevent such an eventuality:

'I now plan to discuss this specific matter with my business partner before we start to build the prototype.' (s1115)

Quotes concerning the intention to engage in an activity in the near future were full of wishes and vague actions which would be applied at some vague point in the future. For example, from an entrepreneur who worked alone while suffering financial problems and who decided to stop, one student got the idea of networking to avoid falling into the same situation as the solo entrepreneur:

'Networking is something I can do well. As a result of the interview, I will strive even harder to expand my network. I think this will come in useful later, especially if I contact multiple entrepreneurs.' (s1036).

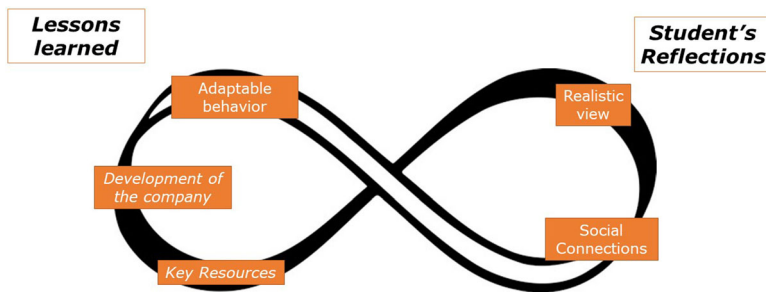
Other students referred to aims such as the following:

- Being willing to work hard and pull out all the stops until the venture became a success (s1053 and s1055).
- Creating their own concept and not having a franchise (s1031).
- Being willing to share problems with people around them, learn from their advice and get their support (s1115 and S1012).
- In the case of a close collaboration with someone else, then establishing clear agreement over key issues beforehand in order to prevent potential problems (s1114).
- Finding an accountant (s1101) or experts in the field (s1101), or talking to family members with an entrepreneurial background (s1101).
- Creating (business) plans for different situations (s1112 and s1013).

In summary, it seems that entrepreneurs' experiences of failure encouraged students to think about how things could go wrong and how they might deal with them. The use of vicarious learning contributed to developing a more realistic image of entrepreneurship.

## 9. Discussion and conclusion

In this study, we explored the impact of vicarious learning about failure during the learning process of students taking an entrepreneurship program. Failure stories in



### Vicarious learning through lessons from failure stories and reflections

**Figure 3.** Relation between lessons learned from failure stories and student's reflections.

which entrepreneurs recount how they have overcome (the negative consequences of) failure give students insights into how to act if they face a similar situation. The lessons learned and the reflections (the main parts of vicarious learning) work together and feed into each other in a continuous loop. Students identified that entrepreneurship is not one straight road and involves trial and error. **Figure 3** visualizes this double-loop relationship in the form of a lemniscate. Every aspect of the loop interacts and affects development of the other aspects: the lessons learned about maintaining adaptable behavior during business failure enable students to develop a more realistic perspective and to search for relevant social connections when seeking new opportunities. At the same time, students' reflections about the importance of people around them are continually fed and changed by the lessons learned in good and rough times.

The findings showed that students could apply the lessons learned by the entrepreneurs (which were then translated into advice) to their own venture; or if they did not want to start a venture, they could translate them into lessons to draw upon in their own life. On a practical level, this study shows that introducing students to failure stories enhances the development of a more realistic perspective on entrepreneurship. Rather than focusing solely on starting, growing and success, students can be helped to realize that dealing with adversity is an equally important part of an entrepreneurial career. Comments related to hard work, being prudent with money and engaging with others (within a team as well as with external network contacts) are now much more anchored in both success and failure events during entrepreneurship. The opportunity to learn about entrepreneurial failure meant that this was no longer unexplored territory for the students in this study, and they came to realize that relying on family and friends could be beneficial. In addition, students indicated that they had become more aware of uncertainty and would even try to prepare for it by creating alternative plans or identifying key people around them who could offer support as and when necessary.

While integrating entrepreneurial failure may seem obvious, as already addressed by Berglund and Verduyn (2018), current entrepreneurship education literature seems to overlook it in favor of enhancing enthusiasm, skills and intentions. With topics such as financial literacy and networking included in many entrepreneurship

programs (Bischoff, Volkmann, and Audretsch 2018), this study's findings suggest that connecting these topics to the struggle this may involve struck a chord with the students participating in this module.

While this approach helps students to develop a more realistic perspective, it does not necessarily result in the development of actionable plans for the immediate future. Some plans were found to be superficial, with vague application to the students' ventures. Students insisted that they had learned tips and pragmatic ideas which they would implement at some point, but they failed to provide concrete steps to indicate how they might go about this. Concrete plans for their intended actions were largely absent, which could be explained by the students' lack of entrepreneurial experience.

Indeed, listening to and reflecting upon failure stories can enhance students' awareness of the potential errors to avoid if they want to prevent negative outcomes in the future (Bandura 1986). This module certainly seemed to lay the foundations for the 'learning by doing' that the students would undergo in the next stage of their program, when they would be expected to start their own venture. These findings are in line with one of the few studies devoted specifically to learning from other people's failures (carried out by Bledow et al. 2017), which argued that students learn when they display some level of reflection on the causes of failure, and when they consider alternative courses of actions that may lead to more successful outcomes in both the specific situation and similar situations.

This study contributes to the literature on EE by advocating inclusion of the topic of failure into the curriculum. This topic has remained highly under-studied thus far. Shepherd's (2004) study of emotions and learning from failure, and Gonul and Litzky (2018) call to help students develop the necessary competencies to manage (and enhance their awareness of) failure, remain scarce examples. Accordingly, Lane, Mallett, and Wapshott (2019, p. 97) indicate that '[A]ccounts of pedagogy engaging with failure in meaningful ways will be most welcome.'

Furthermore, this study contributes to the debate about EE approaches by showing the value as well as the limitations of vicarious learning through interviews with entrepreneurs who have experienced entrepreneurial failure themselves. Experiential learning approaches have attracted much attention as a desired pedagogy in EE (Karimi et al. 2016; Ruskovaara and Pihkala 2013). Thus, as the findings show, learning from others has its value in education, especially when integrated into a program that is highly experiential in nature. While it makes sense to assume that firsthand experience of failure will affect a person more deeply and leave a greater emotional imprint, the evidence from this study shows that learning from failure and recovery experiences may also contribute to the formulation of ideas and strategies for preventing these or reducing costs when dealing with them. Contrary to the initial concerns of some lecturers, the findings suggest that students do not seem to be demotivated when confronted with other people's failure stories; nor do they experience a reduced sense of confidence in relation to starting a venture themselves. In this respect, the findings contrast with those of Lockwood et al. (2004), who asserted that positive outcomes are necessary for students to learn from failure stories. One reason for these seemingly contradictory results could be that the students in our

study not only listened to entrepreneurs' failure stories but also actively searched for lessons learned which they could implement in their own future ventures. As such, they had to actively reframe the story, thereby giving it a positive twist for themselves, even in the absence of a positive outcome for the original entrepreneur.

EE gains when prospective entrepreneurs are trained to deal with failure and to forge a faster (learned) recovery. There is limited knowledge about the ways to encourage behavioral change in this context (Fox, Pittaway, and Uzuegbunam 2018), yet this study shows that vicarious learning is a promising approach through which students can learn closely from failure, without having to experience it themselves. This particularly applies to lessons on the importance of assets and resources, the capacity to adapt and the possibility to develop opportunities. The reflective reports showed that students get a more complete and realistic view of entrepreneurship when events involving failure are not feared but rather seen as opportunities to learn. Moreover, students came to realize that failure and problems are a part of the daily struggle to pursue their own entrepreneurial paths and that they should thus prepare themselves to deal with these by implementing buffers, plans and networks.

## 10. Limitations and avenues for future research

This study has several limitations from which avenues for future research may be distilled. Firstly, while several common patterns could be observed in the failure stories (like initial denial, avoiding seeking support and the grief associated with closing down a venture), it was also clear that every case was different. Furthermore, entrepreneurs are likely to differ in terms of their ability to reflect on their experience of failure, depending on their emotional involvement (Heinze 2013) or cognitive skills (Cannon 1999). The students, however, only had to interview a single entrepreneur, and hence the lessons learned might have been biased and/or limited, depending on whom they interviewed. Although most students informally shared their experiences and lessons learned with their peers, thus providing a broader frame of reference, educators may decide to formalize this sharing (and comparison) of stories and learning in their programs.

Secondly, this study did not assess the lasting effects of the lessons learned. To address this limitation, future studies may therefore include longitudinal designs, following alumni over longer periods of time, possibly including control groups to measure observable differences resulting from being purposefully and structurally exposed to entrepreneurial failure as part of their EE.

Thirdly, we did not take into consideration differences in students' learning associated with motivation, personality or even the domain of education. For instance, a recent study by Liu, Ma, and Li (2019) showed that the impact of failure stories is different for students with high and low levels of self-efficacy. Likewise, fear of failure (on an individual or national level) (Bosma and Kelley 2019; De Kok et al. 2017) may influence whether (and how) students learn from failure stories, and how this affects their future entrepreneurial endeavors. Future studies may therefore take a more comparative approach to test the effectiveness of the methodology described in this study, across different student profiles and populations.

Finally, although beyond the scope of the current study, the findings suggest that entrepreneurs actually like sharing their stories in order to promote students' learning. It therefore seems that our approach could contribute to destigmatizing entrepreneurial failure and offer a platform for entrepreneurs who would otherwise not open up about their experiences (Burchell and Hughes 2006; Simmons, Wiklund, and Levie 2014). Further research amongst entrepreneurs could lead to greater insights into the way that sharing their story affects their personal sense of failure and their learning process.

## Note

1. The course relies on experiential learning pedagogies, where students have to set up their own ventures based on their own product or service ideas. Prior to the introduction of this project, the course had a strong emphasis on topics such as starting, growing and success, with little attention devoted to the topic of adversity and failure.

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No potential conflict of interest was reported by the authors.

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