

# Mapping and navigating context for opportunity development: The Context Hive – a research-based framework

Downloaded from: https://research.chalmers.se, 2024-04-27 06:22 UTC

Citation for the original published paper (version of record):

Ramsgaard, M., Thomassen, M., Williams Middleton, K. et al (2021). Mapping and navigating context for opportunity development: The Context Hive – a research-based framework. Industry & higher education, 35(4): 325-335. http://dx.doi.org/10.1177/09504222211021311

N.B. When citing this work, cite the original published paper.

research.chalmers.se offers the possibility of retrieving research publications produced at Chalmers University of Technology. It covers all kind of research output: articles, dissertations, conference papers, reports etc. since 2004. research.chalmers.se is administrated and maintained by Chalmers Library

Article



Industry and Higher Education I-11 © The Author(s) 2021 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/09504222211021311 journals.sagepub.com/home/ihe



# Mapping and navigating context for opportunity development: The Context Hive – a research-based framework

# Michael Breum Ramsgaard D and Mette Lindahl Thomassen

VIA University College and Aarhus University, Denmark

#### Karen Williams-Middleton

Chalmers University of Technology, Sweden

#### Helle Neergaard

Aarhus University, Denmark

#### Abstract

Contextual elements play an important role in entrepreneurial activities and learning processes. However, context is often taken for granted rather than being viewed as an asset, which may lead to missed opportunities, missed potential solutions and missed learning. Entrepreneurship education should therefore prepare and empower students to act entrepreneurially in their individual, unique context. A student-centric pedagogical approach is required to build this metacognitive understanding and enable students to ultimately self-manage their own process, embedded in and influenced by context. This paper presents a framework, the Context Hive, which enables students to understand and work with the impact of context on their entrepreneurial activity. The Context Hive translates entrepreneurship and context theories into educational (and entrepreneurial) practice by structuring complexity and uncertainty in ways that help students to better grasp, adapt or adjust to contextual elements. Using the research-based framework facilitates dialogue, builds awareness and enables prioritization of actions based on contextual analysis. In this way, the classroom is no longer limited to one perspective and educator and student share responsibility for how learning is designed, which provides a means for educators and students to raise awareness of how context influences entrepreneurial activity, making it navigable.

#### **Keywords**

Action-based, context, entrepreneurship education, learning, student-centric

Context does not necessarily mean the same thing to everyone. So, when it comes to defining context, most of us will readily agree that it can be understood in a variety of ways (Welter, 2011). This is in part because, as individuals, we are both inseparable from our context and active agents in constructing our own context (Baker and Welter, 2020: 4). Archer (1995) suggests that individuals and structures co-evolve and that it is therefore necessary to articulate the dynamic relationship between actors and their context over time. According to Archer (1995), structure enables or constrains agents, while the individual, via agency, reproduces or transforms structure. The relationship between structure and agency resonates in entrepreneurship (Morris et al., 2012; Venkataraman and Sarasvathy, 2001). Entrepreneurship can therefore be seen as a recursive process, as a nexus of the individual and the social systems.

Baker and Welter (2020: 3) argue that 'we need to continue progress on building a contextualized perspective of entrepreneurship research'. According to Welter (2011), in entrepreneurship, context was previously conceptualized as

**Corresponding author:** 

Michael Breum Ramsgaard, VIA University College and Aarhus University, Ceresbyen 24, DK-8000 Aarhus C, Denmark. Email: mibj@via.dk

something given in the environment or situation, a position echoed by Zahra et al. (2014). Welter (2011) points to 'where' and 'when' as important elements of contextual analysis, but she also recognizes the agentic perspective and urges the need for further theorizing. In this vein, context can be seen not only as 'out there' but also as 'within', as a part of entrepreneurial agency. In more recent work, Welter et al. (2019) describe context theorizing in entrepreneurship as developing through three waves: (i) moving from establishing context as a field of research through questioning the why, what and how, (ii) through considering more subjective elements and the enactment of contexts, (iii) to an understanding that considers contexts (plural) when investigating entrepreneurship. Welter et al. (2019: 319) further argue that 'entrepreneurship demands contextualization more than any other field' (emphasis added), probably because 'entrepreneurship will be enacted in different ways in different contexts' (Leitch et al., 2012: 734).

In this paper, we argue that a contextual perspective needs to extend to entrepreneurship education. Given the situated and agentic nature of entrepreneurship, individuals learning to become entrepreneurial need to develop contextual understanding. The transition between entrepreneurship and entrepreneurship education is not easy, but Leitch et al. (2012: 735) suggest that '... context-specific approaches to the promotion and education of entrepreneurship are appropriate'. According to Thomassen et al. (2020), this accentuates the need to adapt and reposition context theory to the field of entrepreneurship education in order to encompass the relevant dimensions for addressing context.

Our definition of context is grounded in a morphogenetic understanding (Archer, 1995). This understanding provides a perspective in which context is malleable and infused by the individual (Baker and Welter, 2020). Bringing this perspective into entrepreneurship education, the premise is that agency is anchored in individuals (Archer, 1995) and that they can influence not only their immediate context by their action but also context more generally through conjoint action. It is important that students learn how to recognize and work with context because they are immersed in context in all its various dimensions as they engage in entrepreneurial practice. While they may understand the importance of context, students do not necessarily have an immediate understanding of the waves of implications context shapes and informs. Context impacts the questions we ask and to whom we ask them; thus, one needs to learn to put the right questions to the right individuals (Brännback and Carsrud, 2017: 125). Within a given context, for example, it is often necessary to identify who are the pertinent stakeholders. There will undoubtedly be multiple stakeholders to consider, and the actions necessary to engage with each of these stakeholders may be diverse. Students need to become confident in dealing and experimenting with context as this impacts their entrepreneurial self-efficacy through learning by doing (Günzel-Jensen et al., 2017). By designing entrepreneurship education that addresses context from the individual's own perspective, students can obtain and internalize the capacity and skills to describe, consider, reflect on and discuss context in order to qualify their entrepreneurial action (Leitch et al., 2012; Thomassen et al., 2020).

In the following, we first present Archer's (1995) morphogenetic approach as the theoretical backdrop for the framework presented in the paper. We proceed to discuss how and why context may be operationalized in an educational setting. We then introduce the educational framework, elucidating its elements and method. We suggest how such a framework may unveil the inherent complexities of context so that it can be discussed, reflected and acted upon from a pedagogical standpoint. Finally, we discuss the initial insights from having applied the framework, as well as practical implications.

### Theoretical backdrop

We argue that Archer's (1995) morphogenetic approach, addressing the interaction between agency and context, is crucial to entrepreneurship because entrepreneurship concerns the agent driving the inception of opportunities (Shane and Venkataraman, 2000), often situated in an emergent organizational form which simultaneously acts to define and legitimize the agent (entrepreneur) (Gartner, 1988; Morris et al., 2012). We suggest that the individualopportunity nexus should perhaps be extended to an individual-opportunity-context nexus aligned with a morphogenetic approach. To support this, we describe the essence of Archer's idea and its relevance for addressing contextbased entrepreneurial learning in the following section. We then move on to key learning theories important to consider when operationalizing context in entrepreneurship education.

# The morphogenetic approach and context in entrepreneurial learning

We interpret the 'structure dimension' of the morphogenetic approach as consisting of a variety of contextual elements that the individual-opportunity nexus encounters on the way to fruition. While Giddens's (1984) structuration theory separates agency and structure, the morphogenetic approach recognizes that they are inseparable, mutually constitutive, as two sides of the same coin (Archer, 2007); however, they can be analytically isolated because they operate on different timescales.

Entrepreneurship research is slowly realizing that specific attention needs to be paid to context-specific aspects when studying entrepreneurship. Entrepreneurs shape context, while context reshapes entrepreneurs as they go about changing it or maintaining it, individually and/or collectively. As individuals, we are constantly confronted with the context we occupy as we try to find a place for ourselves in society (Archer, 2007). Archer (2007: 42) further argues that 'personal reflexivity mediates the effects of social forms upon us'. It is this reflexivity that we suggest educators should promote when supporting students' learning in deliberating context. Classroom activities involving frameworks for self-directed learning can help students to become 'active agents... who can exercise some governance in their own lives as opposed to passive agents, to whom things merely happen' (Archer, 2007: 47). Indeed, 'a decontextualized learning activity is a contradiction in terms' (Lave, 2009: 231), which stresses the importance of applying situated learning theory to understanding social activity, including entrepreneurship. Contextualizing relies on the 'enactment of contexts, through talking, conversations, narratives, interactions, pictures and images' (Welter et al., 2019: 323). This speaks for teaching methods that allow for such agency and that are more experimental and experiential. So, how might educators then facilitate learning that addresses context?

Consensus is emerging that earlier approaches to designing and delivering courses on entrepreneurship were insufficient for preparing students for the practice of entrepreneurship (Fayolle and Gailly, 2008; Kyrö, 2008). The 'through' approach has been advocated as an impactful way of illustrating the connection between entrepreneurship theory and practice (Higgins et al., 2013; Lackéus et al., 2016). Learning 'through' involves 'doing' entrepreneurship, real-life experiences and learning through doing (Kyrö, 2008). According to Günzel-Jensen et al. (2017: 327), learning 'through' extensively emphasizes the principles of andragogy (adult learning), placing students as central in the direction of the learning relative to their purpose and intended practice. The instructor is positioned as a facilitator or enabler of learning rather than as an educator merely delivering contents (Merriam et al., 2007). Students are empowered to develop their learning capability and decision-making skills through practical experience rather than just by acquiring knowledge and skills about or for entrepreneurship. The 'through' approach also has many commonalities with heutagogy, or self-determinism, which emphasizes self-directed learning and the provision of resources rather than content (Kenyon and Hase, 2001: 6). Indeed, as Kenyon and Hase (2001: 7) put it, the 'real challenge to designers of learning experiences ... is to be creative enough to have learners ask questions about the universe they inhabit'. Learning 'through' thus involves granting students autonomy and responsibility for their own learning, and gradually making learning increasingly independent of guidance (Gabrielsson et al., 2020; Van de Pol et al., 2010). The facilitator intervenes only if students get lost, endangered or disconnected from the learning objective in order to 'nudge' them back on track, thus ensuring that their own desired learning is achieved (Neergaard et al., 2021).

A learning 'through' approach is ideal for learning how to deal with context because it intersperses and ragogy and heutagogy, allowing students to build personalized competences and to iteratively map, reflect on and act in context. A central aspect of such application of context in a classroom is therefore the lens it requires for entrepreneurial agency (McMullen et al., 2020; Van Gelderen, 2010). The morphogenetic approach helps to develop a contextual understanding of one's current and intended situation, and how it is possible for students to be agents in and of their own contexts (Jones, 2007, 2019). In this interpretation, the student not only brings in context but is charged with articulating, relating and expanding how context is understood relative to the educational situation - again, the premise of the morphogenetic approach. This is an important step in prioritizing a contextualized perspective in entrepreneurship education.

Having argued for the importance and centrality of context, both embedded in and surrounding the student aiming to become entrepreneurial, as well as the underlying educational designs necessary to consider when the student is central to their own, self-determined learning, we now need to consider how such learning could be facilitated. Entrepreneurship education needs practice-oriented education designs that can manifest context and support contextualization as a skill more distinctly in the classroom, thus moving from something omnipresent to something articulated, visualized and actionable (Hägg and Kurczewska, 2016). The proposed framework encourages students to ask pertinent questions about the context they inhabit based on prompts developed for this particular purpose. Such prompts constitute what may be called pedagogical scaffolding. This scaffolding 'involves the kinds of acts that can help students (and educator) navigate and re-frame their own understanding', for example by setting up continuously repeated ritual markers (Neergaard and Christensen, 2017: 87). While some parameters may be given or may be outside the scope for the student, increased awareness of these parameters can help the student navigate in relation to them. Other parameters are under the student's control and so, by employing a morphogenetic approach while also building on principles of andragogy and heutagogy, learning can be designed to enable students to create and choose how they want to navigate contextual elements. Embedding the learning design in the practice to be learned, a learning 'through' approach then incorporates iterative cycles of learning (Kolb, 1984) to reinforce personalized learning towards self-efficacy in practice.

#### The Context Hive

Achieving a balance between educator guidance and student autonomy is a key consideration when designing and implementing a framework for working with context in entrepreneurship. 'The Context Hive' consists of (i) a



Figure 1. Hexagonal learning structure for context mapping.

hexagonal learning structure (see Figure 1); (ii) Buzz Cards (see Figure 2); and (iii) an action chart (see Appendix 1). These are presented in detail in the following sections.

The framework, although theoretically conceived, has evolved through practical application. Direct testing involved a facilitator exposing groups of non-business students to the Context Hive four times in the extracurricular context of a university-based student incubator. The student groups were representative of education using a learning-throughentrepreneurship approach, specifically in the early phases of developing (their own) new venture ideas. The facilitator was experienced in working with student start-ups and a learning-through approach and was introduced to the framework prior to the first session with the student groups by one of its designers. The sessions were observed and visually documented, and feedback was collected through interviews with both the student groups and the facilitator after the sessions. The following discussion includes examples and reflections from this empirical testing.

#### Hexagonal learning structure

The hexagonal learning structure enables explorative mapping of context elements applied in an entrepreneurial



Figure 2. The Buzz Cards: Purpose, questions and theoretical grounding.

project with students as active entrepreneurial agents. The hexagonal design allows for lateral thinking across the context elements (see Figure 1). Using connectable, repositionable hexagons incorporates context parameters addressed in terms of the macro-, meso- and micro-sociological phenomena levels (Thomassen et al., 2020). Context elements include actors (who), location (where), activities (what) and temporal setting (when), argued to be important for entrepreneurship (Welter et al., 2019). These elements are further evaluated and adopted for entrepreneurship education (Thomassen et al., 2020). The structure serves a mapping function, allowing students to identify relevant contextual elements related to their entrepreneurial project, thus raising their awareness of contextual influence as advocated by Leitch et al. (2012).

The student's idea for an entrepreneurial project is at the centre of the learning structure (called the 'Buzz Zone' in Figure 1). This is the anchor point of the contextual mapping and symbolic of the andragogic premise of the framework, placing the student as central to the learning. Connected to the rim of the central hexagon are additional hexagons that address contextual elements related to the realization of the student's idea; i.e. resources, process, who (actors and stakeholders), where and when. Connected to the outer rim of each of these hexagons are three additional, interchangeable hexagons designed to stimulate mapping of context parameters at multiple levels: micro, meso and macro.

Empirical observations of the structure in use revealed that students took micro-level elements for granted and thus did not explicitly explore how to work with or react to contextual elements at this level. For example, when investigating the resource element, they did not always consider their own immediate social network or their unique skillset gained through interests and education. As students explored the meso-level, the facilitator, who was aware of potential resources such as contacts with relevant stakeholders, ongoing related activities or places for professional guidance (i.e. legal and financial advice), directed them towards or provided access to these resources. The facilitator thus paved a specific road for them. While such action may ease students' entrepreneurial endeavours, it may also marginalize their focus on the facilitator's known resources, hence shifting authority and autonomy from the students to the facilitator, even if unintentionally. This is contrary to using the Context Hive framework, which is designed to position the students as responsible for identifying and approaching resources; indeed, the Context Hive supports andragogy, which requires a balance between facilitator guidance and student autonomy. Finally, students were less likely to address the macro-level when left on their own, testifying to the need for them to build awareness of the impact of contextual elements at this level.

It was evident that all the groups needed guidance to initially navigate the hexagonal learning structure and incorporate the Buzz Cards. At first, the facilitator directed the students through the framework. However, once the students and the facilitator had gained sufficient experience, the facilitator refrained from directing them, allowing them to interact with the framework independently, and only supporting them when they got lost or sought guidance, in line with Neergaard et al. (2021). This suggests that not only do students need to gain mastery of the framework (Van de Pol et al., 2010) but facilitators also need to unlearn directive practice and gain confidence in using it. Furthermore, observing the framework in practice showed that students often prioritized certain levels of investigation. The multiple levels therefore facilitated students' discovery of opportunities that would otherwise remain unexplored. This raises awareness through revealing potential blind spots (connecting to context 'out there') as well as increasing agency and self-efficacy by making explicit students' own agency and connectivity to potential assets and resources (context 'within') (Kenyon and Hase, 2001).

Working with the *when*-hexagon and the *where*-hexagon seemed particularly abstract, and students initially found it difficult to grasp these concepts, which required them to take a meta-perspective on their situation. One could argue that this testifies that these elements in particular presented taken-for-granted blind spots for both students and educators.

The form of the learning structure challenges linear assumptions of entrepreneurial process since a hexagonal form visualizes interconnectedness and allows for multifaceted connection. Each edge fits with many possible other edges, creating the potential for multiple paths and allowing for expansive associations without linearity. The hexagonal form also promotes lateral and generative thinking processes (Hodgson, 1992). The learning structure's hexagonal design is specifically derived to facilitate various types of thinking, leading to recognition of the complex morphogenic interconnectivity of contextual elements and agents. Indeed, hexagonal structures are shown to temporarily suspend linear judgement and promote lateral thinking by associating previously unconnected notions and allowing for multiple juxtapositions that can interconnect or distinguish thought trajectories (Hodgson, 1992). It also provides the name of the framework - the Context Hive as in nature, hives (e.g. beehives) are hexagon-based constructions. To scaffold the learning process, Buzz Cards (see Figure 2) and an action chart (see Appendix 1) are used to enable the interactive design approach, as presented in the following section.

# Interactive design approach: Mapping-reflectionaction (and repeat)

The framework uses an interactive design approach to: (1) explore and gain awareness through mapping of contextual

elements, (2) prioritize next steps for action based on reflective analysis of contextual mapping, (3) execute identified actions, and (4) connect and substantiate decisions made under uncertainty through iteration and reflection, continually revisiting and remapping contextual elements. The fourth step in particular incorporates principles of heutagogy, with students building confidence and selfdetermination with regard to how they learn in and through their entrepreneurial process.

The Buzz Cards (Figure 2) and the action chart (Appendix 1) facilitate the interactive design approach. Due to the qualities of the hexagon structure, no set starting trajectory is envisioned when using the framework. However, observations revealed that students tended to work clockwise through the hexagonal learning structure from the right-hand upper corner after starting in the centre, perhaps based on the ordering of the Buzz Cards. While the Buzz Cards are not numbered or considered to be presented in any particular order (except for the reflection and action cards, which should be introduced after the context cards), it could be important for facilitators to consider ways of randomizing the cards or guiding students to choose a point from which to start.

This first round of practical application inspired a number of developments: (i) the framework was translated into the students' native language, as a language barrier became evident in the first session; (ii) an iteration of the Buzz Cards including the elaboration of the economic aspects on the resource card; and (iii) the development of the reflection card. The reflection cards contain questions to inspire deeper reflection, building on both theory and experience (Schön, 1987). At the process level, the framework is intended to help identify knowledge gaps and action opportunities, and to prioritize the best next steps through the action chart.

The first six cards presented in Figure 2 help the user to explore the contextual elements of the associated central and inner hexagons through guiding questions. Questions on the cards stimulate a cycle, inspired by Kolb (1984), of theorizing, acting/experiencing, analysing and reflecting.

After working with the hexagon and associated contextual element Buzz Card, opportunities and challenges are noted on a separate sheet called the 'action chart' (see Appendix 1). The action chart is a 'collection bank' of potential actions to be taken.

The reflection card asks students to consider how context impacts their idea or project and how they impact their context through their idea/project, building on the morphogenetic approach (Archer, 1995). The card is intended to stimulate reflections on how the student decides and selfdirects to learn and navigate under uncertainty, connecting to the principles of heutagogy (Jones et al., 2019). The next-best-step card guides students through their action chart to identify three self-defined actions they will take in a self-defined timeframe. The action chart and associated next-best-step card are designed to support competence development, because actions can be broadly categorized relative to gaining knowledge, stakeholder communication and interaction, or generating and participating in an activity. While working with the Buzz Cards, students add action items to the action chart. The next-best-step card guides students to prioritize the collected action items in order to make their entrepreneurial process navigable and promote concrete action, connecting to the 'doing the doable' principle of effectuation (Cope, 2005; Sarasvathy, 2001).

With one exception, the students said they felt successful in using the framework. The student groups felt capable of exposing opportunities and of associating their own context and working through the framework, resulting in group-developed action plans. The exception was a student who entered the class without an idea: she just did not want to follow the professional career path associated with her specific education and was interested only in identifying opportunities that were not connected with her area of competence, resources, etc. In this case, it was not meaningful for her to work with the framework. Thus, it is important to make explicit that, in order to benefit from the framework, students must have an idea for an entrepreneurial endeavour and be open to their own central role in the framework. As noted, all other students who worked with the framework provided positive feedback.

Students found the Context Hive '... useful in exploring the frames, need for resources and to distil concrete action options'. However, one group stated that they would have liked the framework to be more prescriptive, for example by providing 'if–then' scenario cards. However, the underlying premise of the framework is to promote learner agency (Kenyon and Hase, 2001; Morris et al., 2012) and not to prescribe what action learners should take in an unpredictable world (Leitch et al., 2012; Thomassen et al., 2020).

The feedback from the facilitator was that the framework aided in the exploration and building of awareness of opportunities and resources at the micro- and mesolevels, including explication of tacit knowledge. This suggests that the framework helps students to '... ask questions about the universe they inhabit', as Kenyon and Hase (2001: 7) propose. Moreover, the creation of action points is useful in a process perspective to create commitment. It was observed that the micro-level and meso-level were the primary focus and also where action was prioritized in the first iteration. The macro-level was addressed, but students mostly felt a knowledge gap in this area. It would be interesting to see if further framework iterations would induce action at the macro-level, which would suggest that entrepreneurial agency and action can be built from proximate to more distant contextual levels.

Multiple iterations constitute an integral part of the framework. As students start to settle on a particular path or trajectory, the framework can be reintroduced (by a facilitator) or independently utilized (by the student, which is the long-term intention) to revise the level of awareness of contextual influence given developments, setbacks, changes and other impacts on the entrepreneurial activity, thus allowing for mindful deviation from potential path dependency (Garud and Karnøe, 2001). The learning cycles reinforce the relationship between theory and practice, emphasizing the value of experience-based rather than explanation-based learning (Austin and Hjorth, 2012; McMullen et al., 2020).

# Discussion

The Context Hive is generic and independent of discipline and geographical location. It is designed for higher education students participating in educational processes that apply a learning 'through' entrepreneurship pedagogy. This could include both curricular and extracurricular activities (i.e., venture creation programmes in entrepreneurship education, start-up camps at accelerator programmes, student co-curricular activity supported through faculty, etc.). Students need to be working with a concrete idea or project, given that the main value of the framework is to distil the contextual complexity in which the student and their idea or project are embedded in order to guide future action based on a raised awareness of contextual impacts. Students do not need to meet specific professional requirements. The terminology and elements of the framework are not specific to any discipline and unfold with supporting Buzz Cards that prompt questions. The framework can be used in any phase of an entrepreneurial process, as the stage of maturity of an idea or project will generate various knowledge gaps and associated actions, in part due to students' interpretation of abstraction levels around the idea or project. In any case, opportunities and challenges can be identified and prioritized into an action plan. However, the target group should be students with an idea or project ready to be reflected upon.

When preparing to use the Context Hive as part of educational design, the educator should consider the following:

- Students should be engaged in some form of actionbased entrepreneurial process, in the sense that they are conducting ideation, developing a new project or service, creating a solution to a defined problem, or engaging in a new venture or start-up activity.
- 2. Before applying the framework, educators should read the guidelines, familiarize themselves with the framework, and reflect on their contextual setting.
- Determine given or specific contextual elements relevant to the student group (e.g., key actors in a university-based innovation system when working with students engaged in a venture creation programme).
- 4. Determine the purpose of using the framework and then iterate this purpose in the introduction of the framework to the students, and refine as necessary.

- 5. Reflect on the maturity and experience of the students using the framework. When should the students be pushed onwards in the process and when should they be left to work through problems?
- Determine when the framework should be introduced, how often, and with whom the framework can be revisited (through external feedback; peerto-peer feedback; educator feedback; or all of these).
- 7. Reflect on students' access to additional information and the time allocated for investigating leads generated from the framework (e.g., through online web searches, during class time, or over days or weeks through interaction with users, potential customers, clients, etc.).
- 8. Identify relevant reference material that should be made available to students to help guide the use of the framework, as needed.
- 9. Determine the degree and timing of educator or external involvement, peer-to-peer sessions, etc. This should include a discussion of how to filter feedback (i.e., awareness of the underlying perspectives or bias of any particular feedback relative to the contextual element).

Wrapping up the intervention should include two questions to help operationalize the next steps: (a) What are the critical next steps to take in developing your project? (b) How are you prioritizing your engagement in these actions?

We know from the entrepreneurship education literature that entrepreneurs often act on the basis of both personalized understandings of their context and inner emotions (Karp, 2006; Williams-Middleton and Donnellon, 2014). From this it follows that they need support to drive change within their context in pursuit of their objectives (Hägg and Kurczewska, 2016). In this respect, using the Context Hive helps students to identify *where* potential for change may exist.

By mapping their context in relation to a specific entrepreneurial project, students can identify and prioritize opportunities and challenges. Aided by the Buzz Cards, students identify actionable items in their context and generate a prioritized action plan. The facilitated process enables them to identify which contextual elements to design with, and which contextual elements to react to when working actively with new ideas. Using the framework helps them organize context across multiple levels and sociological phenomena, thereby raising their awareness of relevant contextual elements while also prompting them to work (independently) and interact with context during the learning process. As students move through the iterative process, certain contextual elements will become prominent and others unimportant, allowing them to prioritize their own agency. As such, the process framework is a generic learning-centric framework; the discipline comes

with the student, and the outcomes associated with the framework are driven by the student's needs.

In describing the development of entrepreneurial competence, Mets et al. (2017) argue that competence must include awareness of and applicability to the contextual situation. This calls for attention to the question of how to teach context. By identifying, filtering and operationalizing contextual elements in entrepreneurial activity, the Context Hive helps to uncover the taken-for-granted elements of context that students and educators bring with them into the classroom. Students become empowered to navigate through entrepreneurial processes, and this very empowerment is the cornerstone of their experiential learning. They thereby develop heuristics for independently acting entrepreneurially. The Context Hive maps the micro, meso and macro context levels to show students how these levels interrelate; it also helps them choose whether to adapt, adopt or adhere to contextual elements influencing their entrepreneurial activity. Students then access new networks, resources, roles and norms of various likely stakeholders. This relieves educators of the constraining role of being domain experts and allows them instead to be facilitators of learning (Thomassen, 2017). This activity therefore expands the learning process beyond the classroom boundaries. This expansion is recognized by Naia et al. (2014) as important in entrepreneurship education, not least as it highlights diversity, contingency and constructivist approaches, as well as adaptation to cultural context, while at the same time providing learning scaffolding based on the learner's engagement.

The educator plays an important role in anchoring established knowledge so that it will be fruitful for the next steps in the process. The educator challenges students when they are unable or reluctant to investigate contextual elements. However, the educator also stands to gain new insight into the contextual elements and levels of awareness that students bring into the classroom (and to the entrepreneurial process). This can have positive effects on other teaching aspects; for example, insights gained from iteration with the Context Hive could highlight the need for industryspecific knowledge, skill development or discussion about socialized stereotypes specific to a geographical location.

Based on contemporary developments in the understanding of student-centric learning in entrepreneurship education (Robinson et al., 2016), we have emphasized the students' role in designing their own learning journey (Jones, 2007, 2019). The consequences for contextualization of learning are manifold because of the complexities inherent in the concept of context. The educator's role changes into that of a facilitator of learning processes (Austin and Hjorth, 2012; Cope, 2005; Thomassen, 2017). Furthermore, the educator needs to manoeuver pedagogically between categories of learning contexts. Consequently, student-centric learning implies that greater importance should be attributed to the concepts of mapping, reflection and action in a learning journey (Blenker et al., 2012; Cooper et al., 2004; Cope and Watts, 2000).

#### Conclusion

In this paper, we present arguments for opening the black box inside the classroom and for extending the learning space to incorporate context. For entrepreneurship education, context enters the classroom by introducing each actor (student, educator, guest) and object (empirical example, case, metaphor, etc.). Because each entrepreneurial journey is unique, we need educational frameworks that allow students to adapt the framework to their specific situation. Thus, we need to have methods of teaching that place students at the centre of their own learning (Nabi et al., 2017; Williams-Middleton and Donnellon, 2014), including contextual elements.

We advocate making context explicit in the classroom setting, not simply by adding another process tool or canvassing device, but through the adoption of an iterative framework. This is an explicit and important step away from de-contextualized learning in entrepreneurship education towards making learning an essentially purposeful, meaning-making activity among students. In doing so, the framework recognizes contextual elements as part of what needs to be learned and situates students at the centre as engaged learners, actively moving back and forth between conceptual understanding and practical application.

With this suggestion, we propose to help students make sense of their individual context through iterations of mapping, reflection and action scaffolded by the framework, the Context Hive. The framework and associated design approach stimulate students' reflections, promote action and scaffold their dialogue by incorporating reflections at the micro, meso and macro levels of context. Both educators, while planning, and students, during the learning process, become sensitized to the context in which they are embedded. Shedding light on contextual blind spots and revising what is taken-for-granted enable students to work *with* context.

In conclusion, the value of this framework lies not in prescribing what to do. Rather, it distils contextual elements that are otherwise obfuscated in the development of an idea or project. The framework reduces the inherent complexity of context by exposing what is taken for granted, magnifying opportunities and removing obstructing elements within a specific contextual setting. Thus, the framework offers educators a new way to raise students' awareness of how context shapes entrepreneurial activity, making it navigable. This, in turn, allows a student to progress, with key decision processes and prioritization of steps in tune with their own interpretation and intent. Hence, the main value of the framework is that it makes the complexity of context in entrepreneurial action transparent and operational, ipso facto following the discussions and evidence of Welter et al. (2019) and Thomassen et al. (2020).

#### **Declaration of conflicting interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

#### ORCID iDs

Michael Breum Ramsgaard b https://orcid.org/0000-0002-5753-9651

Karen Williams-Middleton b https://orcid.org/0000-0001-9531-7120

#### References

- Archer MS (1995) Realist Social Theory: The Morphogenetic Approach. Cambridge: Cambridge University Press.
- Archer MS (2007) The trajectory of the morphogenetic approach. An account in the first-person. Sociologia, Problemas e Pràticas 54: 35–47.
- Austin RD and Hjorth D (2012) Case-based co-creation of learning processes. MPP News 15(2): 11–14.
- Baker T and Nelson RE (2005) Creating something from nothing: resource construction through entrepreneurial bricolage. *Administrative Science Quarterly* 50(3): 329–366.
- Baker T and Welter F (2020) *Contextualizing Entrepreneurship Theory*. London: Routledge.
- Blenker P, Frederiksen SH, Korsgaard S, et al. (2012) Entrepreneurship as everyday practice: towards a personalized pedagogy of enterprise education. *Industry and Higher Education* 26(6): 417–430.
- Brännback M and Carsrud A (2017) Cognitive maps in entrepreneurship: understanding contexts. In: Malin B and Alan CL (eds) *Revisiting the Entrepreneurial Mind*. Cham: Springer, pp. 123–129.
- Cooper S, Bottomley C and Gordon J (2004) Stepping out of the classroom and up the ladder of learning: an experiential learning approach to entrepreneurship education. *Industry and Higher Education* 18(1): 11–22.
- Cope JP (2005) Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice* 29(4): 373–397.
- Cope JP and Watts G (2000) Learning by doing: an exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behaviour* and Research 6(3): 104–124.
- Fayolle A and Gailly B (2008) From craft to science: teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training* 32(7): 569–593.
- Gabrielsson J, Hägg G, Landström H, et al. (2020) Connecting the past with the present: the development of research on pedagogy in entrepreneurial education. *Education + Training* 62(9): 1061–1086.
- Gartner WB (1988) 'Who is an entrepreneur?' is the wrong question. *Entrepreneurship Theory and Practice* 12(4): 11–32.

- Garud R and Karnøe P (2001) Path creation as a process of mindful deviation. In: Garud R and Karnøe P (eds) Path Dependence and Creation. Mahwah, NJ: Lawrence Erlbaum Associates, Inc., pp. 1–38.
- Gibb A (1988) The enterprise culture: threat or opportunity? *Management Decision* 26(4): 5–12.
- Giddens A (1984) *The Constitution of Society: Outline of the Theory of Structuration*. Berkeley, CA: University of California Press.
- Günzel-Jensen F, Moberg K, Mauer R, et al. (2017) Self-efficacy and the entrepreneurial mindset revisited. In: Malin B and Alan CL (eds) *Revisiting the Entrepreneurial Mind*. Cham: Springer, pp. 319–335.
- Hägg G and Kurczewska A (2016) Connecting the dots: a discussion on key concepts in contemporary entrepreneurship education. *Education* + *Training* 58(7/8): 700–714.
- Higgins D, Smith K and Mirza M (2013) Entrepreneurial education: reflexive approaches to entrepreneurial learning in practice. *The Journal of Entrepreneurship* 22(2): 135–160.
- Hiim H and Hippe E (1998) *Læring gjennom opplevelse, forståelse og handling: en studiebog om didaktik*, 2nd edn. Oslo: Oslo Universitetsforlag.
- Hindle K (2010) How community context affects entrepreneurial process: a diagnostic framework. *Entrepreneurship & Regional Development* 22(7–8): 599–647.
- Hodgson AM (1992) Hexagons for systems thinking. European Journal of Operational Research 59(1): 220–230.
- Jones C (2007) Creating the reasonable adventurer: the co-evolution of student and learning environment. *Journal of Small Business and Enterprise Development* 14(2): 228–240.
- Jones C (2019) A signature pedagogy for entrepreneurship education. Journal of Small Business and Enterprise Development 26(2): 243–254.
- Jones C, Penaluna K and Penaluna A (2019) The promise of andragogy, heutagogy and academagogy to enterprise and entrepreneurship education pedagogy. *Education* + *Training* 61(9): 1170–1186.
- Karp T (2006) The inner entrepreneur: a constructivistic view of entrepreneurial reality construction. *Journal of Change Man*agement 6(3): 291–304.
- Kenyon C and Hase S (2001) Moving from andragogy to heutagogy in vocational education. In: Research to Reality: Putting VET Research to Work. Proceedings of the 4th Australian Vocational Education and Training Research Association (AVETRA) conference, Adelaide, Australia, 28–30 March 2001, pp. 294–301. Alexandria: Australian Vocational Education and Training Research Association.
- Kolb D (1984) Experiential Learning: Experience as the Source of Learning and Development. Englewood Cliffs, NJ: Prentice Hall.
- Korsgaard S and Anderson AR (2011) Enacting entrepreneurship as social value creation. *International Small Business Journal* 29(2): 135–151.

- Kyrö P (2008) A theoretical framework for teaching and learning entrepreneurship. *International Journal of Business and Globalisation* 2(1): 39–55.
- Lackéus M, Lundqvist M and Williams-Middleton K (2016) Bridging the traditional-progressive education rift through entrepreneurship. *International Journal of Entrepreneurial Behavior & Research* 22(6): 777–803.
- Lave J (2009) The practice of learning. In: Illeris K (ed.), Contemporary Theories of Learning. Milton Park: Taylor & Francis, pp. 200–208.
- Leitch C, Hazlett SA and Pittaway L (2012) Entrepreneurship education and context. *Entrepreneurship & Regional Devel*opment 24(910): 733–740.
- McMullen JS, Ingram KM and Adams J (2020) What makes an entrepreneurship study entrepreneurial? Toward a unified theory of entrepreneurial agency. *Entrepreneurship Theory and Practice*. Epub ahead of print 26 May 2020. DOI: 10.1177/ 1042258720922460.
- Merriam SB, Caffarella R and Baumgartner L (2007) *Learning in Adulthood: A Comprehensive Guide*, 3rd edn. San Francisco, CA: Jossey-Bass.
- Mets T, Kozlinska I and Raudsaar M (2017) Patterns in entrepreneurial competences as the perceived learning outcomes of entrepreneurship education: the case of Estonian HEIs. *Industry and Higher Education* 31(1): 23–33.
- Morris MH, Pryor CG and Schindehutte M (2012) *Entrepreneurship as Experience: How Events Create Ventures and Ventures Create Entrepreneurs.* Cheltenham: Edward Elgar.
- Nabi G, Liñán F, Fayolle A, et al. (2017) The impact of entrepreneurship education in higher education: a systematic review and research agenda. *Academy of Management Learning & Education* 16(2): 277–299.
- Naia A, Baptista R, Januário C, et al. (2014) A systematization of the literature on entrepreneurship education: challenges and emerging solutions in the entrepreneurial classroom. *Industry* and Higher Education 28(2): 79–96.
- Neergaard H and Christensen DR (2017) Breaking the waves: routines and rituals in entrepreneurship education. *Industry* and Higher Education 31(2): 90–100.
- Neergaard H, Robinson S and Jones S (2021) Transformative learning in the entrepreneurship education process: the role of pedagogical nudging and reflection. *International Journal of Entrepreneurial Behavior & Research* 27(1): 251–277.
- Robinson S, Neergaard H, Tanggaard L, et al. (2016) New horizons in entrepreneurship: from teacher-led to student-centered learning. *Education* + *Training* 58(7/8): 661–683.
- Sarasvathy SD (2001) Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review* 26(2): 243–263.
- Schön DA (1987) Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions. San Francisco, CA: Jossey-Bass.

- Shane S and Venkataraman S (2000) The promise of entrepreneurship as a field of research. Academy of Management Review 25(1): 217–226.
- Thomassen M (2017) The five capacities of entrepreneurship educators: from domain experts to supporters of inherently evolving, unpredictable and individually founded learning processes. In: Branch J, Hoersted A and Nygaard C (eds) *Teaching and Learning Entrepreneurship in Higher Education.* Oxfordshire: Libri, pp. 209–256.
- Thomassen ML, Williams-Middleton K, Ramsgaard MB, et al. (2020) Conceptualizing context in entrepreneurship education: a literature review. *International Journal of Entrepreneurial Behavior & Research* 26(5): 863–886.
- Van de Pol J, Volman M and Beishuizen J (2010) Scaffolding in teacher–student interaction: a decade of research. *Educational Psychology Review* 22: 271–296.
- Van Gelderen MW (2010) Autonomy as the guiding aim of entrepreneurship education. *Education* + *Training* 52(8/9): 710– 721.
- Venkataraman S and Sarasvathy SD (2001) Strategy and entrepreneurship: outlines of an untold story. In: Hitt MA, Freeman RE and Harrison JS (eds) *The Blackwell Handbook of Strategic Management*. Malden, MA: Blackwell Publishing, pp. 650–668.
- Welter F (2011) Contextualizing entrepreneurship conceptual challenges and ways forward. *Entrepreneurship Theory and Practice* 35(1): 165–184.
- Welter F, Baker T and Wirsching K (2019) Three waves and counting: the rising tide of contextualization in entrepreneurship research. *Small Business Economics* 52(2): 319–330.
- Williams-Middleton K and Donnellon A (2014) Personalizing entrepreneurial learning: a pedagogy for facilitating the known why. *Entrepreneurship Research Journal* 4(2): 167–204.
- Zahra SA, Wright M and Abdelgawad SG (2014) Contextualization and the advancement of entrepreneurship research. *International Small Business Journal* 32(5): 479–500.

# Appendix I

#### Table IA. The action chart.

		Opportunities	Challenges
The Buzz Zone S	<u>,</u> କ୍ଷି		
Resources	₽ ₽		
Process	¢		
Who 🗳	<b>.</b>		
Where	)		
When?	þ		