

## Danish University Colleges

### Tacit Knowledge and Implicitness in Entrepreneurial Learning Settings

#### Questions we care about

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**Title:**

**Tacit Knowledge and Implicitness in Entrepreneurial Learning Settings**

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**Theme:**

Pedagogical theories in entrepreneurship education

**Questions we care about / research questions:**

What parameters constitutes tacit knowledge in entrepreneurship education?

**Approach:**

The current paper is conceptual suggesting a design for research on tacit knowledge within entrepreneurship education. Since this is an overlooked area for empirical investigation the paper suggest and discuss ways forward for designing a case-study that can provide empirical detail to the RQ.

**Results:**

The conceptual understanding of tacit knowledge and implicitness in entrepreneurship education covers a wide range of interrelated areas. The paper suggests an empirical research design that enables to provide documentation and evidence of tacit knowledge and implicitness.

**Implications:**

By better understanding the nature of tacit knowledge and implicitness, educators within entrepreneurship education can benefit from expanding the range of pedagogical and didactic methods used in a classroom. The understanding of tacit knowledge in the relation of entrepreneurial processes can furthermore provide a framework for including tacit knowledge when either engaging in or designing learning processes or settings that includes idea development, creative processes and entrepreneurial actions.

**Key Words:**

Entrepreneurship education, actions, entrepreneurial leadership, curriculum design, case study

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**Title:**

**Tacit Knowledge and Implicitness in Entrepreneurial Learning Settings**

**Introduction**

Tacit knowledge has not been dealt with in the entrepreneurship education literature except some rare occasions (Rih and Guedira, 2014). However, a better understanding of tacit knowledge and implicitness in entrepreneurship education settings can help improve the range of pedagogical and didactic methods used in the classroom. In this conceptual paper we first of all ask, what parameters constitutes tacit knowledge in entrepreneurship education. The aim is to investigate, whether tacit knowledge and implicitness in entrepreneurial learning settings can be a focal point for educators when practicing entrepreneurship education.

Every educator draws on a wide range of codified and tacit knowledge in designing both curriculum and classroom activities. Entrepreneurship educators has facilitated entrepreneurial processes and innovative workshops in many experiential ways (Hytti and O’Gorman, 2004; Krueger, 2007; Mwasalwiba, 2010). Despite the increased relevance and attention towards general curriculum designs focus on the process dimensions of entrepreneurship education (Corbett, 2005; Fayolle, 2002), there still seems to be no academic consensus of the explicit and implicit learning processes going on in these learning settings (Henry and Lewis, 2018). Educators have searched for entrepreneurial curriculum designs for decades (Piihl and Philipsen, 2011), which in recent years have broadened the range of contexts where entrepreneurship education is implemented (Jones and Matlay, 2011); thus influencing that many students find the entrepreneurship education courses inspiring, motivating and involve deeply in them (Balan and Metcalfe, 2012; Bliemel, 2014). However, very little is still known about the real tacitness and implicitness in entrepreneurship education settings since the focus often relies on the explicit tools and knowledge transfer processes (Baraibar-Diez et al., 2018).

Therefore the current paper will 1) Provide a conceptual framework for tacit knowledge, 2) Suggest and discuss ways to empirically investigate how constructs of tacit knowledge and implicitness influences learning in an entrepreneurial setting.

Especially the suggested empirical design is open for suggestions and elaborations from the 3E conference participants since this is very much a work in progress.

**Conceptual framework**

**Experience-based learning settings**

Austin and Hjorth (2012) argue that two broad approaches to education exists, namely that of “explanation-based” and the subsequent experience-based”. Regarding the explanation-based approach, the theoretical knowledge is transferred from the expert educator or lecturer to the novice student (Dreyfus and Dreyfus, 2005), whereas in the experience-based approach the learning process is in contrast contextually rich and enable students to connect with and to develop knowledge, mainly through facilitated discussion, project work, analysis and presentation. The span of possibilities for knowledge types are therefore larger in the experience-based approach (Austin and Hjorth, 2012),

and the interplay between learning forms has been found to have importance in this relation (Ramsgaard and Christensen, 2018).

Experiential learning processes is established as a learning philosophy when looking at entrepreneurship education courses (Gibb and Price, 2014; Middleton et al., 2014). Hannon suggested the notions of learning about, for and through (Hannon, 2005). These concepts has however been discussed recently (Hoppe et al., n.d.; Ramsgaard, 2018) which could indicate a basis for looking at other types of learning in entrepreneurship education, namely learning *within* or learning *inside* something. Investigating tacit knowledge in entrepreneurial learning settings therefore might reveal pedagogical elements that surprisingly also provide an active or passive part of the learning acquisition.

### **Entrepreneurial learning**

Cope 2005 suggested a dynamic perspective on entrepreneurial learning (Cope, 2005; Pittaway and Cope, 2007). He stated that “...*Entrepreneurial learning is not characterized by the notions of stability, consistency, or predictability. Rather, it has been demonstrated that the concepts of metamorphosis, discontinuity, and change more appropriately encapsulate the dynamics of this phenomenon.*” (Cope, 2005 p. 392).

In regards to the teaching and learning methods used in entrepreneurship education the picture is broad. Recent reviews has tried to identify (Henry and Lewis, 2018). Especially Mwasalwiba (2010) reviews objectives, teaching methods and content dimensions of entrepreneurship education in order to provide some kind of generalisability. The review from Henry and Lewis (2018), however, concluded that there still is a lack of universal approaches due to the broadness of the field of entrepreneurship education.

The role of the individual learner is also something to have in mind, since reflection has been highlighted as a crucial parameter for learning to happen (Jack and Anderson, 1999; Schön, 1991). Neergaard et all (2016) highlighted approaches where the students are in focus and where learning happens through the carefully designed approach to the entrepreneurship education activities (Thrane et al., 2016). Also development of a professional identity has been argued as an important parameter in relation to the individual learner (Dannels, 2000; Donnellon et al., 2014).

Lackéus provides several points on entrepreneurship education as having value-creation as aim (Lackéus, 2015; Lackéus et al., 2016). This perspective is very much in line with Hannon (2006, 2005) highlighting that the overall understanding of entrepreneurship education.

### **Tacit knowledge**

A key question is however, how tacit knowledge influence learning in entrepreneurship education?

With a “*We can know more than we can tell*” approach to knowledge, the philosopher Michael Polanyi (2009) described tacit knowledge as a part of ‘...knowledge which we cannot articulate’, and to some extent are not aware of. Polanyi refers to three different kinds of knowledge:

- **Explicit knowledge** – knowledge we can articulate
- **Implicit knowledge** – internalized knowledge and understandings, which we are aware of

- **Tacit knowledge** – internalized skills, which we cannot explain or are unaware about. (Polanyi, 2009)

Moreover Polanyi describes tacit knowledge as the ability to use consciousness in recognizing several simple entities to get a complete understanding of their joint significance. where others also talks about implicitness and real tacitness (Li and Gao, 2003). This, he argues, is the ability we practice in visual perception – when we are able to recognize the characteristic features of a physiognomy; eyes, nose, mouth and as a complete specific human being.

Inspired by this approach, dividing tacit knowledge into tiny bits and entities, may provide us with the opportunity to localize certain areas of attention when investigating learning processes. Though, Polanyi argues that too much focus in one distinct entity, may cause confusion. So an analysis and investigation of tacit knowledge must be understood an interaction between entities and their whole.

Polanyi (2009) describes the experience/learning that derives from tacit knowledge as similar to the skill to decode for instance a face: *“The knowledge which such training transmits cannot be put into words, nor even conveyed by pictures; it must rely in the pupils capacity to recognize the characteristic features of a physiognomy and their configuration in the physiognomy”*. Further Polany suggest a coordination between to dwell upon something, to act and to reflect (Polanyi, 2009) in order for students to develop and test knowledge.

Other scholars has dealt with the concepts of tacit knowledge, namely Eraut (2000) who defines it as *“clarify the multiple meanings accorded to terms such as ‘nonformal learning’, ‘implicit learning’ and ‘tacit knowledge’”* (Eraut, 2000). Eraut (2000) defines a typology of non-formal learning that distinguishes between 1) Implicit learning, 2) Reactive on-the-spot learning and 3) Deliberative learning (Eraut, 2000). Further non-formal learning is evidenced as consisting of *“...tacit understanding of people and situations, routinised actions and the tacit rules that underpin intuitive decision-making.”* (Eraut, 2000, p. 113).

In the field of entrepreneurship education these concepts has not previously been investigated, though a better conceptual understanding could provide an explicitness from which both academics and practitioners could benefit.

### **Tacit knowledge and learning**

Illeris describes the process of learning as a set of impulses often as different sense modalities which reach the individual from the outside. The impulses are then filtered by the brain, and within fractions of a second the brain itself has sorted out which feelings, memories, thoughts, experiences, senses etc. are relevant to activate. (Illeris, 2004).

Damasio describes the conscious mind consists of two things: a mind which is a flow of mental images and a self (an individual); a conscious mind is a mind with a self in it. He states: *“A self introduces a subjective perspective in the mind” and follows with “We are only fully conscious when self comes to mind”*.

The argument is that the conscious mind that operates in the assimilative and accommodative learning processes, to a great extend, operates with perception (also indicated in the learning cycle) and tacit knowledge.

It is rather difficult to explicit what happens in the implicit processes, but one way forward is to focus on the internal reflective processes – here being thinking, feeling, observing – all routed in the ability to reflect – or as Polanyi would approach it – to dwell. Polanyi (2009) describes the act of dwelling as the internal reflection happening in the apprentice while observing the master; an internal action in the body, the student tries to mimic to understand the situation. This is parallel to the mastery learning processes, and works as a great paradox for the experience-based learning style used in entrepreneurship education.

### **Non-formal learning and tacit knowledge in professional work**

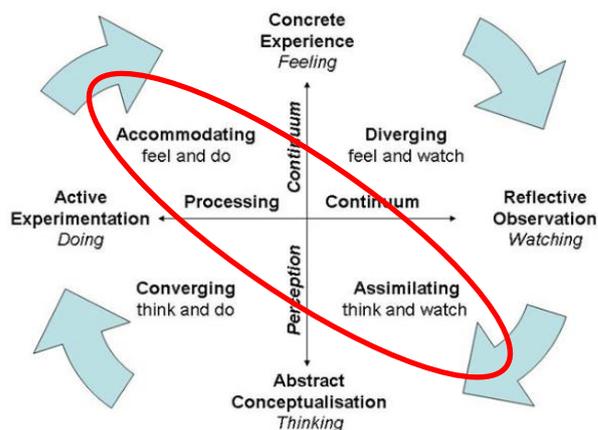
Taking the tacitness of tacit knowledge into consideration the field of tacit knowledge calls for development of research methodologies that can discover and reveal some of the underlying relations to learning in the field of entrepreneurship education. The codified knowledge (Eraut, 2012; Shum and Crick, 2012) within a given field of knowledge provides professional performance for individuals and groups (Eraut, 2000). How this codified knowledge is distributed is often random and even accidental (Johnson et al., 2002; Lam, 2000). This is also elaborated by Lam (2000) that claims that tacit knowledge is rooted in “...*coordinated mechanisms and organizational routines*”.

Nonaka developed a definition of tacit knowledge versus explicit knowledge in 1995 (Nonaka and Takeuchi 1995), a model that has been widely used and discussed. Nonakas proposes a model of knowledge transfer visualized in a matrix integrating four transformations when existing knowledge is changed from tacit to explicit. Namely: 1) Socialization, 2) Outsourcing, 3) Combination, and 4) Internalization.

### **Tacit knowledge in entrepreneurial learning settings**

Knowledge acquisition is in the entrepreneurship education literature in most cases described as action learning (Cope 2005). Courses designed for students to work with entrepreneurship education often aim for transformative learning of participants through innovative activities (Mueller and Anderson, 2014; Nohl, 2015). These experience-based learning processes can be described with Kolb’s Experiential Learning Cycle (Kolb and Kolb, 2009; Kolb, 2014).

While focus for many years have been around the converging and diverging processes (Gibb and Price, 2014), Kolb documents an approach placed perpendicular to these concepts; the accommodating and assimilating processes.



Observing evaluation of these courses leaves a concern though: The students seem to understand the tasks, accept and follow the creative teaching design, plan and create prototypes and work hard on a pitch, to express the unique selling point. They engage in all the instructions they get, but what about the internalized learning and knowledge happening in the process? Have we succeeded so much in making the scope, the process and the output explicit, that the internal learning process is missing, skipped or ignored?

The internalized learning processes – implicit or tacit – are difficult to explain, see, understand and grasp in general. That is the uniqueness of them – and maybe this should stay this way. But if we really strive for exaltation of these processes we must first of all be able to recognize them. And how to see the invisible – how to work with this parameter in entrepreneurship education?

### **Aim of study**

Ignoring tacit knowledge in entrepreneurship education may cause educators to overlook important parameters. This can influence the activities going on in the entrepreneurship education classroom and subsequent have an influence on the learning outcome (Biggs, 2003; Cope, 2005). There is a gap in the entrepreneurship education literature in order to provide evidence of what parameters constitutes tacit knowledge in entrepreneurship education. The aim of the current study is to investigate learning settings where tacit knowledge might be present, and to suggest ways forward to include tacit knowledge both in practice and in research within entrepreneurship education (Robinson and Blenker, 2014).

### **Suggested methodology and context for study**

Since tacit knowledge has not been investigated empirically within entrepreneurship education settings there are few directions towards suitable methods for a robust research design. However, the current project sets out to explore empirically, how tacit knowledge and implicitness in entrepreneurship education settings can be evidenced, documented and discussed in a research design that aims to ensure validity in relation to the undisclosed data in this particular field.

Below is a suggested methodology that is the basis for discussion at the 3E Conference 2019.

Processes that includes tacit knowledge in the sense that is described in the above conceptual framework must be rich contexts that involves several participants engaged in entrepreneurship

education activities such as idea generation, team work, project work, product development, product presentation. Participant observation/ethnographic observation therefore seems like a relevant first choice for the investigation. Robinson and Shumar (2014) stated that ethnographic methods seeks to establish a detailed understanding of informants and how they see and understand aspects of everyday life. It is a method that provides data about the practices of entrepreneurship educators, students and activities in a classroom (Robinson and Shumar, 2014).

In order to establish a deep understanding of the learning processes in focus, other qualitative methods are included in order to triangulate and ensure data saturation and validity (Fusch and Ness, 2015; Maxwell, 1992). Focus groups are included in the study to investigate how students elaborate and reflect upon their learning – explicit and implicit. A focus group can provide (Halkier, 2010) qualitative data that goes beyond the observation notes of the researcher as it can provide more detail to specific situations. The focus group provides the participant with an opportunity to reflect upon and discuss the learning process and outcome in depth.

The context of the study is a Danish university of applied science where different entrepreneurship education activities take place regularly. Even though universities of applied science is not the given arena for entrepreneurship education activities compared to traditional university (Juvonen, 2012; Kettunen, 2011), the context is chosen because of its richness and possibilities for interplay of learning forms (Ramsgaard and Christensen, 2018) dived over a range of different courses.

Ethnographic observation is set for one-day workshops in three to five learning settings/educations where students work with activities based in entrepreneurship education. These activities range from teamwork, a solution camp to a formal presentation of idea concepts. The university of applied science has a close relation to professional practice why the students in all cases worked in an industry setting with real-life cases given by industry partners or developed by themselves. Engaging in developing solutions for the industry partner, all students participated in various entrepreneurial learning activities.

### **Topics for discussion**

When data have been further analyzed the following are questions we still care about:

- How can a better understanding of tacit knowledge in entrepreneurship education be developed?
- In what ways can a framework for tacit knowledge support educators when designing curriculum and activities in entrepreneurship education?
- In what ways can educators be supported to include parameters of tacit knowledge when designing curriculum activities?
- How does tacit knowledge influence the behavior of the educator?
- What are the important overall topics of tacit knowledge in entrepreneurship education?
- What is the role of reflection toward tacit knowledge and what is the difference between these?
- What are paths from explicit to implicit knowledge in entrepreneurship education?
- How can tacit knowledge be investigated and evidenced methodologically in entrepreneurship education?

Possible practical implication could be to provide a framework for educators to include the parameter of tacit knowledge in entrepreneurship education. Another implication would be to enable students

in entrepreneurial processes to be able to reflect explanation-based and experience-based (theory and practice).

## References

- Austin, R.D., Hjorth, D., 2012. Case-based co-creation of learning processes. *MPP News* 15, 11–14.
- Balan, P., Metcalfe, M., 2012. Identifying teaching methods that engage entrepreneurship students. *Education Training* 54, 368–384.
- Baraibar-Diez, E., Odriozola, M.D., Llorente, I., Luis, J., Sánchez, F., 2018. The Use of Innovative Tools for Teaching Entrepreneurship. In: *Conference Proceedings. The Future of Education. libreriauniversitaria. it Edizioni*, p. 345.
- Biggs, J., 2003. Aligning teaching and assessing to course objectives. *Teaching and Learning in Higher Education: New Trends and Innovations* 2, 13–17.
- Bliemel, M.J., 2014. Getting entrepreneurship education out of the classroom and into students' heads. *Entrepreneurship Research Journal* 4, 237–260.
- Cope, J., 2005. Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship theory and practice* 29, 373–397.
- Corbett, A.C., 2005. Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship Theory and Practice* 29, 473–491.
- Dannels, D.P., 2000. Learning to Be Professional Technical Classroom Discourse, Practice, and Professional Identity Construction. *Journal of Business and Technical Communication* 14, 5–37.
- Donnellon, A., Ollila, S., Middleton, K.W., 2014. Constructing entrepreneurial identity in entrepreneurship education. *The International Journal of Management Education* 12, 490–499.
- Dreyfus, H.L., Dreyfus, S.E., 2005. Peripheral Vision Expertise in Real World Contexts. *Organization Studies* 26, 779–792.
- Eraut, M., 2000. Non-formal learning and tacit knowledge in professional work. *British journal of educational psychology* 70, 113–136.
- Fayolle, A., 2002. Insights to research on the entrepreneurial process from a study on perceptions of entrepreneurship and entrepreneurs. *Journal of Enterprising Culture* 10, 257–285.
- Fusch, P.I., Ness, L.R., 2015. Are we there yet? Data saturation in qualitative research. *The qualitative report* 20, 1408–1416.
- Gibb, A., Price, A., 2014. A compendium of pedagogies for teaching entrepreneurship. *International entrepreneurship educators program*.
- Halkier, B., 2010. Focus groups as social enactments: integrating interaction and content in the analysis of focus group data. *Qualitative research* 10, 71–89.
- Hannon, P.D., 2005. Philosophies of enterprise and entrepreneurship education and challenges for higher education in the UK. *The International Journal of Entrepreneurship and Innovation* 6, 105–114.
- Hannon, P.D., 2006. Teaching pigeons to dance: sense and meaning in entrepreneurship education. *Education Training* 48, 296–308.
- Henry, C., Lewis, K., 2018. A review of entrepreneurship education research: Exploring the contribution of the Education + Training special issues. *Education + Training* 60, 263–286.
- Hoppe, M., Westerberg, M., Leffler, E., n.d. Educational approaches to entrepreneurship in higher education - A view from the Swedish horizon. *Education Training* in press.

- Hytti, U., O’Gorman, C., 2004. What is “enterprise education”? An analysis of the objectives and methods of enterprise education programmes in four European countries. *Education Training* 46, 11–23.
- Illeris, K., 2004. Transformative learning in the perspective of a comprehensive learning theory. *Journal of Transformative Education* 2, 79–89.
- Jack, S.L., Anderson, A.R., 1999. Entrepreneurship education within the enterprise culture: producing reflective practitioners. *International Journal of Entrepreneurial Behaviour & Research* 5, 110–125.
- Jones, C., Matlay, H., 2011. Understanding the heterogeneity of entrepreneurship education: going beyond Gartner. *Education Training* 53, 692–703.
- Juvonen, P., 2012. *Fostering Entrepreneurship by Developing a New Learning Environment Within a Finnish University of Applied Sciences*. Edited by Thierry Burger-Helmchen 225.
- Kettunen, J., 2011. Innovation pedagogy for universities of applied sciences. *Creative Education* 2, 56–62.
- Kolb, A.Y., Kolb, D.A., 2009. Experiential learning theory: A dynamic, holistic approach to management learning, education and development. *The SAGE handbook of management learning, education and development* 42–68.
- Kolb, D.A., 2014. *Experiential learning: Experience as the source of learning and development*. FT press.
- Krueger, N.F., 2007. What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice* 31, 123–138.
- Lackéus, M., 2015. *Entrepreneurship in Education-What, Why, When, How*. Trento, Italy: Background paper for OECD-LEED.
- Lackéus, M., Lundqvist, M., Middleton, K.W., Jones, P., Jones, P., 2016. Bridging the traditional-progressive education rift through entrepreneurship. *International Journal of Entrepreneurial Behavior & Research* 22, 777–803.
- Li, M., Gao, F., 2003. Why Nonaka highlights tacit knowledge: a critical review. *Journal of knowledge management* 7, 6–14.
- Maxwell, J.A., 1992. Understanding and validity in qualitative research. *Harvard educational review* 62, 279–301.
- Middleton, K.W., Mueller, S., Blenker, P., Neergaard, H., Tunstall, R., 2014. Experience-based learning in Entrepreneurship Education – a comparative study of four programmes in Europe. *RENT (Research in Entrepreneurship and Small Business) XXVIII*.
- Mueller, S., Anderson, A.R., 2014. Understanding the entrepreneurial learning process and its impact on students’ personal development: A European perspective. *The International Journal of Management Education* 12, 500–511.
- Mwasalwiba, E.S., 2010. Entrepreneurship education: A review of its objectives, teaching methods, and impact indicators. *Education+Training* 52, 20–47.
- Neergaard, H., Robinson, S., Tanggaard, L., Krueger, N., 2016. New horizons in entrepreneurship: from teacher-led to student-centered learning. *Education+Training* 58, 661–683.
- Nohl, A.-M., 2015. Typical Phases of Transformative Learning A Practice-Based Model. *Adult Education Quarterly* 65, 35–49.
- Piihl, J., Philipsen, K., 2011. A research-based approach to university curriculum development that prepares students for subsequent practice. *Beyond transmission—innovations in university teaching* 27–43.
- Pittaway, L., Cope, J., 2007. Simulating entrepreneurial learning integrating experiential and collaborative approaches to learning. *Management Learning* 38, 211–233.
- Polanyi, M., 2009. *The tacit dimension*. University of Chicago press.

- Ramsgaard, M.B., 2018. Experiential learning philosophies of enterprise and entrepreneurship education. In: Hyams-Ssekasi, D. (Ed.), *Experiential Learning for Entrepreneurship*. Palgrave Macmillan.
- Ramsgaard, M.B., Christensen, M.E., 2018. Interplay of entrepreneurial learning forms: a case study of experiential learning settings. *Innovations in Education and Teaching International* 55 2018, 55–64.
- Rih, N., Guedira, M., 2014. Entrepreneurship Education: Tacit Knowledge and Innovation Transfer. An Analysis Through Nonaka's Model. *Academic Journal of Interdisciplinary Studies* 3, 253.
- Robinson, S., Blenker, P., 2014. Tensions between rhetoric and practice in entrepreneurship education; an ethnography from Danish higher education. *European journal of higher education* 4, 80–93.
- Robinson, S., Shumar, W., 2014. Ethnographic evaluation of entrepreneurship education in higher education; A methodological conceptualization. *The International Journal of Management Education* 12, 422–432.
- Schön, D.A., 1991. *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*, Paperback ed., ed. Jossey-Bass, San Francisco.
- Thrane, C., Blenker, P., Korsgaard, S., Neergaard, H., 2016. The promise of entrepreneurship education: Reconceptualizing the individual–opportunity nexus as a conceptual framework for entrepreneurship education. *International Small Business Journal* 34, 905–924.