Playful learning as a pedagogical method in entrepreneurship education

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1 Introduction

Several studies have reported on the usefulness of learning by doing, or experiential pedagogies, in entrepreneurship education (Fayolle, 2018). In short, experiential learning is considered a workable method to teach entrepreneurial thinking and behavior (e.g., Franzén, Heljakka & Nieminen, 2020). It may be augmented with tools and techniques that students find meaningful and at best, offer insights and memorable experiences that help them solve problems and overcome creative challenges in their future careers. One approach to learning focuses on playfulness throughout life. This pedagogy is most traditionally associated with young learners. For example, a recent study (Khan, Oad & Aslam, 2021) highlighted the essential relationship in early childhood education between play strategy and entrepreneurship competencies—play as a method is one of the strategies that improve social behaviors, such as collaboration, exploration, projects, problem-solving, decision-making, and innovation. Further, "Playful learning is a pedagogical methodology where it is sought that children are active, engaged, socially competent, and can have materials that are fun and meaningful to them." (Hassinger-Das, Hirsh-Pasek & Golinkoff, 2017) As illustrated in this chapter, playful learning holds promise even for learners in higher education, such as young adults involved in university pedagogics.

For all ages, "play-sourced motivation is a major dynamic, within the developing brain, that produces learning" (Dearybury & Jones, 2020). Thus, play is important to learning throughout our lifetime (Whitton, 2018), and has been used to model a signature pedagogy of playful learning in higher education (Nørgård, Toft-Nielsen, & Whitton, 2017). Playfulness, a mindset that is a precondition to the activity of play, is, in fact a vital attribute for an effective teacher (Dearybury & Jones, 2020). It is important for the contemporary educator to understand and value the intrinsic lack of seriousness that comes with play, what Whitton and Moseley (2019) believe is actually the basis for its learning potential.

This chapter investigates the potential of playful approaches in teaching and learning in higher education, with a particular interest in entrepreneurship education and young adult learners. How might playful learning as a pedagogical method support the development of students' entrepreneurship competencies? We address this question by providing examples of ways in which playful learning might be implemented through playful approaches and three major components of invitations to play—atmosphere, physical space, and materials.

We take a broad view of entrepreneurship education, and refer to entrepreneurship as "when you act upon opportunities and ideas and transform them into value for others. The value that is created can

be financial, cultural, or social". It is also acknowledged that value creation can occur in the private, public, and third sectors (Vestergaard, Moberg & Jørgensen, 2012, 11; see also Lackéus, 2018). The literature on entrepreneurship education has increasingly called for new ways of teaching and learning entrepreneurship, to enhance entrepreneurial awareness and mindset (e.g., Robinson et al., 2016). Accordingly, this chapter introduces student-centered learning design and tools for playful learning to build a culture that exposes students to entrepreneurial competencies (see also Stenholm et al., 2021).

The learning experiments described here were conducted at the Faculty of Humanities and School of Economics at a Finnish university located in a university consortium. The latter course was organized in the subject of entrepreneurship, but the use of the playful learning approach and the Comicubes learning tool introduced in this chapter is not limited to that subject alone, as it may be used in enhancing entrepreneurial competencies within non-entrepreneurship or non-business subjects, as well (see also Penaluna & Penaluna, 2021). Finally, the chapter discusses and evaluates the usefulness of the tool as a part of playful approaches in entrepreneurship education in the context of higher education, and in enhancing entrepreneurship competencies presented in EntreComp: The Entrepreneurship Competence Framework (Bacigalupo et al., 2016).

2 The role of play in adult life and education

Traditionally, play is understood as a particular type of leisure activity (Giddens, 1964). However, as Whitton and Moseley (2019) observed, play is not a single activity but a wide spectrum of activities, which is "infinite in its variety". Moreover, as Dearybury and Jones (2020) correctly noted, play is not just an early childhood concept. Play belongs to all age groups. Essentially, "play is a human right" (Play and Playground Encyclopedia, 2019).

While playfulness as a predisposition to play is often conceptualized as a mindset, play is itself defined as activities that are (1) self-chosen and self-directed, (2) intrinsically motivated, (3) guided by rules, and (4) imaginative and conducted in an active, alert, but relatively non-stressed frame of mind (Gray, 2015, 125). The key here is that play is a voluntary activity that cannot be forced and, hence, is sparked by personal and individual motivation. Play may spur from spontaneous engagement with the environment, or other (human) players, regardless of their age, even with other species such as domestic animals. Despite its fleeting nature, rules are created in play while playing, and it is through rule-making that play becomes a social process guided by interaction between players. Play can be set in motion through *invitations to play*, which may be designed and facilitated within education.

Play in the lives of adults

Play in adulthood is still little understood and in the worst case stigmatized (Guitard, Ferland & Dutil, 2005). Adult play has usually been disguised as entertainment, recreational sports, leisure and tourism (Sutton-Smith, 2009; Henricks, 2015), hobbying, or collecting (Rogan, 1998), in order to camouflage it or avoid the associated stigma (Heljakka, Harviainen & Suominen, 2018). During the first two decennia of the 21st century, however, play has gained a more visible position in adult life. That is, adults not only relax in the name of play, but also perform playfully in the contexts of life-long and

life-wide learning and work, as part of the everyday practices in institutions and organizations. Typically, adult play in the organizational realm is situated in the playful and creative use and design of space (Heljakka & Blomberg, 2022). Again, what has changed in the facilitation of play behavior among mature individuals is that play has entered the realm of work and adult education, specifically through processes of gamification (Huotari & Hamari, 2017), and more generally playification (Scott, 2012).

Intentional playification

Games and play are interrelated constructs (Whitton & Moseley, 2019). Open-ended play turns its attention to the creative areas of play, as opposed to often structured, goal-oriented games designed to have specific outcomes, such as reaching a pre-determined aim. Following Whitton (2018), we propose shifting the focus from the use of games to a wider range of playful approaches. In doing so, our case studies demonstrate deliberate and intentional *playification* of learning through more open-ended and creative outcomes, than the pre-determined goals addressed in many games. Scott (2012) defines playification as follows:

> *Playification is using engaging play-based interaction in situation and non-play contexts to make a product, service, activity, or application more engaging, enjoyable, and motivational. Playification is a method used to imbue an activity, task, or artifact with a psychological, emotional, social, or physical reward and then evaluate the levels of extrinsic and intrinsic motivational forces.* (Scott, 2012)

In the context of education, playification is often the deliberate choice of the actor responsible for the design of learning, usually the teacher. With play taking many forms (Hughes, 2002), the playification of education may be achieved in many ways. This chapter proposes some ideas on how to enrich entrepreneurship education through playification.

Play in education

According to Whitton and Moseley (2019), play in the context of learning is a philosophy of learning. Classrooms need playful experiences because the benefit of play is its capacity to enhance the flexibility and agility of thinking, but it also caters to developing social skills, emotional intelligence, and resolution ability (Jenson, 2005).

Individuals who are curious about the possibilities of play in education often find value in its ability to stimulate creativity and imagination (Lieberman, 1977), and support problem-solving. Dearybury and Jones (2020) described creativity as an idea in motion that is built up through components of a playful mindset—awareness, intentionality, and process. Again, (safe) failure, managing risk, building resilience, and developing true creativity and innovation attained in play (Whitton & Moseley, 2019), are all familiar concepts to any practicing entrepreneur and could be experimented with through playful approaches in entrepreneurship education.

Nørgård et al. (2017) highlighted the relationship between the surface structures of playful learning, the deep structures and the activities of play, and the implicit structure and the philosophy of playfulness. In our research, the surface structures of playful learning entail object play with physical

artefacts (blocks/cubes through the Comicubes tool), the deep structures of a playful learning task given to students, and the implicit structure entails following the philosophy of adult play(fulness). In this chapter, the preconditions for achieving a successful playful learning experience are conceived to be composed of three elements—enabling the right atmosphere, making room for movement, and inviting play through appropriate materials. Each of these will be further elaborated in due course.

3 The effect of play in setting a welcoming class environment

Whitton and Moseley (2019) assured us that play cannot be "imposed but it can be encouraged and facilitated. We as educators, can create safe spaces and trusting communities where playfulness can thrive". Setting up a welcoming class environment for learners of any age requires the involvement of playful education professionals, who are open-minded and have a tolerance for the ambiguity and 'amphibolous' nature of play (Spariosu, 1989), meaning its flexibility, which is often manifest in creative experiments. Hjorth (2005) described spaces for play and invention as heterotopias—'radically other spaces'. Applied in education, these open up the possibility of new avenues for experimental teaching and playful learning. As suggested in the following, enabling play and playful learning pedagogy requires the facilitation of atmosphere, physical movement, and creatively engaging materials.

Allowing atmosphere

Playful learning emphasizes a positive learning environment, as researchers have highlighted how the right climate for encouraging creativity is one where the students can feel they can take risks and feel free to ask 'what would happen if?' without being ridiculed (Biggs & Tang, 2007, 147). Knight and Wood (2005) found that even a moderate shift towards more interactive and cooperative learning in class can result in significantly higher student learning gains than those achieved using a standard lecture format. At the same time, it is relevant to consider how informal activities bring about unanticipated learning in infinite ways (Biggs & Tang 2007, 186). We believe these informal activities can be accomplished as playful approaches and invitations to play. Novel ideas are born when the time, space and opportunity for play are provided (Dearybury & Jones, 2020). First, in order for play to take place, a playful environment filled with potential for learning needs to be set up. This entails a physically safe and mentally supportive space that is judgment-free, as well as inclusive.

Making room for movement

What is the first prerequisite for playful learning to happen, besides the pedagogical mindset? Biggs and Tang (2007, 17) noted how teaching rooms and media are specifically designed for one-way delivery, not interactive in-class work in a more informal setting (Knight & Wood, 2005).

In line with Hjorth's (2005) idea of combining the concept of heterotopia with organizational creativity, the connections between space and movement become relevant. We believe these ideas have value for learning, too.

Silverman has stated how play and play-oriented movements improve cognition (Silverman, 1993). Interactive group work with material tools demands, besides the freedom to fail, a reconfiguration of physical space, supported by playful elements and tools that are modular and can be moved around,

if needed (see e.g., Heljakka & Blomberg, 2022): Movement, a crucial component of embodied cognition (Dearybury & Jones, 2020), requires making room for play.
Playful learning is often collaborative learning, and, groups stimulate creativity (Burke 2011, 87–88). The earlier literature illustrates how supplementing lectures with group work helps students feel engaged and, subsequently, learn more (Payne et al., 2004, c.f. in Burke 2011, 93). Working in groups accentuates the need to make room for movement. In reminiscing on her teaching, Steinert related that "I do not believe that I have ever conducted a small-group teaching session without moving the furniture around!" (Steinert 1996, 204)

Inviting play through materials
"Playful does not necessarily mean unstructured", asserted Cable (2019). A great deal of play in the 21st century involves the consumption of various designed and structured play materials and activities, such as games, toys, and playful environments. Whitton and Moseley (2019) proposed that play can be invited through these kinds of signifiers or artefacts. For example, when we handle objects physically, manipulating them as we think, it can often help us think through things in a different way. This action recognizes that we think with our bodies (especially our hands), as well as our mind (Walsh 2019, 81–82). Therefore, it is important to include objects of various shapes, scale and size in playful learning, which require the learners to stand up and move about in the classroom. The benefits of such an approach have been demonstrated in the prior research. In a study conducted by Franzén et al. (2020), academic professionals as participants demonstrated how a playful approach, including the use of large-scale physical materials (cardboard cubes), can facilitate improvisation, collaboration, creativity, physical movement, and collective problem-solving—activities considered beneficial to the mental flexibility considered crucial to successful entrepreneurial individuals.

The two case studies presented in this chapter employ a physical prototyping tool and workshop method—the *Comicubes* (Heljakka, 2014). The tool, once assembled, is similar to a popular plaything, namely blocks, which have been with us for a long time, and alongside construction sets endure in open-ended play and learning opportunities (Hewitt, 2001). Blocks provide endless opportunities for both 'toying' and constructing in spatial play. Similarly, they offer possibilities for object play of various kinds; they may be rotated and inspected from many angles, promoting multisensorial play. Moreover, cardboard cubes as a variation on blocks offer a pleasant surface to touch and can be drawn on and colored as a tool for creative play, unlike another type of block familiar from many studies exploring the playful engagement of children, namely LEGO. There are endless possibilities for ways in which to present information on the cube, including the use of images, words, numbers, and combinations thereof; and, if necessary, even a hybrid, technologically enhanced information layer. As previously described, the inviting, play(ful) qualities of the cardboard cubes present a simple, customizable interface and a never-ending potential for enhancement with different elements (both material and digital) (Heljakka & Ihamäki, 2016).

Playful learning pedagogy
Ihamäki and Heljakka (2020) noted that play is one of the strongest drivers of human behavior, and can be considered a constituent of almost every aspect of creative work. Again, Hjorth described entrepreneurship "as a form of social creativity, as a tactical art of creating space for play and/or invention within an established order, to actualize new practices." (Hjorth 2005, 387)

Playful learning pedagogy supports the philosophy of learning in unconventional and, therefore, creative ways. Besides the freedom to fail (to try out, experiment, and test), it asks for student engagement and for them to take responsibility for their own learning (self-directed learning).

It has been discovered that students learn substantially more from active inquiry-based activities and problem solving than from listening to lectures (Beichner & Saul, 2003; Hake, 1998, c.f. in Knight & Wood, 2007). Building on these ideas, it is easy to see how the emphasis in playful learning has to be placed on the learning more than the teaching. "Playful learning follows the constructivism approach, seeking that students be active participants in their learning process, and tries to offer them surmountable challenges to learn while being intrinsically motivated." (Whitton, 2018). Playful learning often strives to allow students to work collaboratively with problem-based learning (Biggs & Tang, 2007, p. 149). Playful learning strategies, such as educational gamification, game-based learning, and escape rooms are increasingly being incorporated into the university education system (Manzano-León et al., 2021). "Expert teaching includes mastery over a variety of teaching techniques, but unless learning takes place, they are irrelevant", noted Biggs and Tang (2007, 19). For this reason, it is also crucial that students become intrinsically motivated to participate in play activities guided by playful learning pedagogies.

Play and self-determination

According to the self-determination theory, motivation is based on three innate psychological needs: competence, relatedness, and autonomy. When these are satisfied, it leads to greater self-motivation (Ryan & Deci, 2000). It is acknowledged by developmentalists that children are from birth active, curious and playful, even without specific rewards (e.g., Harter, 1978; see also Ryan and Deci, 2000). Truly, intrinsic motivation reflects the positive potential of human nature. The concept of intrinsic motivation refers to a natural inclination towards assimilation, mastery, spontaneous interest, and exploration. These are essential to cognitive and social development, and function as a source of enjoyment and vitality throughout life. Although humans are blessed with a multitude of intrinsic motivational tendencies, the maintenance and enhancement of this inherent tendency necessitates supportive conditions (Ryan & Deci, 2000). Intrinsic motivation is important also for learning as a student becomes engaged and enjoys studying, and may reach a state of flow, leading to better learning outcomes (e.g., Csikszentmihalyi & Nakamura, 2014). Since play is acknowledged to be intrinsically motivated (Gray, 2015), and includes aspects such as exploration (Sutton-Smith, 1986; Hughes 2002) and fantasy (Jones, 2008), employing playful approaches in pedagogics can be considered to have the potential to support student engagement and learning outcomes also in higher education.

Play and effectuation

Sarasvathy's (2001) well-known example, "Curry in a Hurry", demonstrates the difference between two logics of decision-making, causation and effectuation: "Causation processes take a particular effect as given and focus on selecting between means to create that effect. Effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means." (Sarasvathy, 2001, 245). In the effectuation processes, we see a linkage to playfulness related to both social environments, as well as self-contained playfulness in the mind of an entrepreneur.

The above-mentioned example describes the founding of two imaginary Indian restaurants with a fast-food section: one based on causation, that is, the predictive logic of decision-making, and the other on effectuation logic. The traditional management paradigm (causation logic) indicates that founding the restaurant would require: "*that we proceed inward to specifics from a larger, general universe-that is, to an optimal target segment from a predetermined market"* (Sarasvathy, 2011, 246). This would require time- and often also money-consuming processes of segmentation, targeting and positioning.

In turn, in the effectual process, as Sarasvathy (2001) explains, the entrepreneur could, for instance, instead of expending extraordinary amounts of time and analytical effort, start with the assumption of an existing market and examine the particular set of accessible means or causes. As Sarasvathy (2001, 250) put it: "Entrepreneurs begin with three categories of 'means': they know who they are, what they know, and whom they know – their own traits, tastes, and abilities; the knowledge corridors they are in; and the social networks they are a part of." Therefore, with limited resources, the entrepreneur should think creatively (and as we see, playfully!), to bring the idea to market with as few resources as possible.

As Sarasvathy (2001, 247) outlines: "in using effectuation processes to build her firm, the entrepreneur can build several different types of firms in completely disparate industries. This means that the original idea (or set of causes) does not imply any one single strategic universe for the firm (or effect)." So, if the customers' real interest was, for instance, in the idea of ethnic entertainment instead of only food, the effectual entrepreneur might develop other products, such as catering services, party planning, and Indian food cooking courses. Thus, with the same starting point but a different set of contingencies, our imaginary entrepreneur might ultimately build a variety of businesses. This would involve listening to customers' needs, building networks, grasping serendipitous events, dealing with uncertainties, and entrepreneurial imagination (Sarasvathy, 2001).

Playful approaches, as we see them, can facilitate students' imagining of possibilities, and adopting new perspectives, thus leading to effectual thinking and behavior. Further, as early as 1933, Whitehead reminded us that drawing an exact line of distinction between educational institutions dedicated to abstract knowledge and those dedicated to application and to handicrafts is not sensible. Purposeful activity, intellectual activity, and the instant sense of rewarding achievement should be conjugated in a unity of experience. Similarly to Whitehead, we see that this doctrine should be implemented with discretion and according to other educational requirements.

In the following sections, we describe a pair of courses as case examples, which provide suggestions for how playful learning may be facilitated in the context of academic learning among young adults.

4 Case examples - A pair of courses employing playful methods

This section describes playful learning in practice, *activation through playful approaches*. Next, a pair of courses linked together at a single Finnish university—one organized in the Faculty of Humanities, the other in the School of Economics—are described and discussed. We start by

explaining the Faculty of Humanities' course, as it acted as the starting point and inspiration for employing playful methods at the School of Economics' course.

Case 1: "Playful Museum" course at the Faculty of Humanities

In some disciplines, a case study is an ideal way to see how students can apply their knowledge and professional skills. It could be written up as a project or as an item for a portfolio, suggested Biggs and Tang (2007, 222). In the fall of 2021, the second author designed and ran the "Playful Museum" ("Leikillistyvä museotila") course delivered in Finnish at the Faculty of Humanities to a group of Finnish students. The motivation for the course was to plan student-centered, hands-on work accentuating playful learning pedagogy. The course employed the jigsaw group model, as presented by Biggs and Tang (2007, 141). The model sees the groups allocated sub-tasks and the plenary is to put the finished sub-tasks back together to complete the main task. In each class, the students performed sub-tasks related to the conceptual and physical design of a museum space that was 'playified' in the process.

Steinert (1996, 204) advised pedagogues to "Try to make your session stimulating, interesting and informative." The "Playful Museum" course used theory, earlier research, case examples, and the like to create interest and inform the students, whereas activation via various tasks and tools aimed to stimulate their creativity and eagerness to solve design problems. Thus, students were asked to take more responsibility for their own learning, an approach also proposed by Knight and Wood (2005).

For the project-based course, there was a greater task to be completed at the end of the course. It was influenced by engagement with the theories and activities throughout the course, where the students were asked to work in their groups and develop one 'playful dimension' for the common project, which was built up little by little as the course advanced.

Playful formation of groups

During the first session, everyone was asked to sit in a circle and say a few words about their own intended learning goals for the course, on which the teacher made notes and looked to incorporate appropriate tasks in the teaching. The goal of starting with a casual discussion was to create a positive atmosphere for learning, "establishing a productive classroom climate" (Biggs & Tang, 2007, 37).

Researchers have highlighted how the right climate to encourage creativity is where the students feel they can take risks, and feel free to ask 'what would happen if?' without being ridiculed (Biggs & Tang, 2007, 147). This inspired the second author to set up not only a 'magic circle for learning', but also of play (a concept introduced by cultural theorist Johan Huizinga, also discussed in Whitton, 2018), which makes for a trusting and safe environment. This was achieved in one way by the spatial arrangement of the classroom seating. Sitting in a circle quickly developed into a habit, as the students themselves started to ask when they entered the classroom whether or not they should start organizing the seating. This practice proved to be a good way of checking attendance and finding out how students were doing.

According to Steinert, "Small group teaching offers students an opportunity to discuss and refine their understanding of complex issues, to problem solve and apply their knowledge to new situations, and

to reflect on their attitudes and feelings." (Steinert, 1996, 203) In this course, small groups proved to work well in terms of interaction and creative work. At the beginning of the course, the students were assigned to groups of three or four, not more than six, based on their 'museum types' discovered using Finland's national broadcaster YLE's 'Museum Machine' online application.

The Flipped Classroom Task

Biggs and Tang argued that "students do their best work when given freedom and space to use their own judgment" (Biggs & Tang, 2007, 38), and that formative assessment means Involving your students (Biggs & Tang, 2007, 191). In the Flipped Classroom Task (or "learning through teaching"), the students (some of whom had studied museology) were asked: "What are the main functions of traditional museums?" The resulting insights were then added to the lecture slides, and presented using Microsoft PowerPoint. This exercise was motivated by the goal of achieving the students' trust in the knowledge they had already gained, and their ability to teach their peers.

Measurement of goals

"The ultimate aim of any professional education course […] is to improve their professional competence." (Biggs & Tang 2007, 50–51). Steinert (1996) saw teachers as group facilitators for whom it is important to vary the teaching methods. The present authors believe that by deploying different 'invitations to play' as playful approaches, a teacher is better equipped to facilitate the use of creativity. How is that measured? Biggs and Tang (2007, 229) suggested that an important ingredient of creativity is the originality of the product. Many original ideas stemmed from the co-creative coursework, and in this way, it was also very rewarding for the author as a teacher to see how students created 'something out of nothing', illustrating that a transformative process had taken place. "It does not seem that hard: Good teaching produces change: it is called learning." (Biggs & Tang 2007, 277)

Student feedback

Student feedback was collected from the students in the end of the course. Some examples of this feedback follow, describing students' responses to their intrinsic motivation and learning goals and the general atmosphere:

> "At the beginning of the course, I set a goal for myself to learn how playification and gamification can be employed in the museum space, and how they could be used in other contexts and environments. The course content corresponded fully with my goals, and I felt I could make use of the knowledge and experiences gained earlier. Especially the "Playful Museum" concept functioned as a good 'device' for learning, and brought together all the theory I learnt during the course." (Student 1)

> "The teaching style of the course was really great, intensive but casual. Sitting in a circle probably awakened more conversation and eased the tension. The many different kinds of activities and tasks were instructive. The theoretical side of the course was interesting, and did not feel at all like 'lecturing'. I think the course had a safe atmosphere, which is really important everywhere, and I believe that I learned about communication, open-mindedness, how to listen to others and care about their opinions [more] than theory. This is a good thing!" (Student 2)

> "My learning goal was to understand more about how to enliven and playify, and in general to learn something new in the area of museology. The course corresponded well with these expectations and was really innovative and fun! A wonderful oasis among theoretical courses that are all the same." (Student 3)

Case 2: "Entrepreneurial Opportunities" course at the School of Economics

Our second example of playful learning as a pedagogical method is a course given by the first author of this chapter at the School of Economics at Bachelor's degree level. The course (5 ECTs – European Credit Transfer System) was implemented in hybrid mode due to the Covid-19 pandemic, in the fall of 2021. It is a part of the university's minor studies in Entrepreneurship (25 ECTs), and is also open to exchange students at the School. In total, 25 Finnish, German, and French students participated in the course. The students were majoring in marketing, management and organization, or accounting and finance. Thus, the course was both multidisciplinary and multicultural. It ran under the title "Entrepreneurial opportunities", and ended with intensive days of study, when playful approaches were employed as a pedagogical method.

The aim of the course was to allow students to become familiar with the first phases of the entrepreneurial process, concentrating on ideation, business opportunities, evaluation, and enterprising behavior. The aim throughout the course was to encourage students to elaborate on how their ideas create value for others, and for themselves, and what kind of value that is: economic, enjoyment, social, harmony, or influence (Lackéus, 2018, see also Fayolle, 2007). The first three weekly course meetings focused on theories relevant to the course theme, and discussing them with students. The key theoretical themes were opportunity creation vs. discovery (Alvarez & Barney, 2007), and effectuation vs. causation (Sarasvathy, 2001).

The course comprised classroom exercises (or on Zoom), and independent learning, for example, reading journal articles weekly to complete pre-assignments for background, prior to course meetings where theoretical viewpoints were further discussed (Flipped Classroom). Since one of the key focuses of the course was how to develop ideas into opportunities with commercial potential, students were also asked, for example, to follow the news and social media to identify problems that customers might experience, in order to encourage ideation, and then bring the materials to class and discuss the ideas together.

As mentioned above, the course was inspired and implemented in collaboration with the "Playful Museum" course described earlier, which was running simultaneously at the Faculty of Humanities at the same university. Prior to the intensive study days, the course teacher at the Faculty of Humanities gave the business students a presentation on playification, play experience, and the customer journey concept. The presentation provided the students with background information on the "Playful Museum" concept. A Museum of Selfies and Museum of Ice Cream (Heljakka, 2023), for example, were described as examples of interactive and playful museum concepts.

At the beginning of the first intensive study day, the students were provided with some instructions. The groups were asked to come up with ideas they thought would be suitable as services and products

at a fictional "Playful Museum" in the private sector. They were also asked to discuss these ideas in their groups, evaluate them, and turn the best into business opportunities. The student groups were encouraged to think about potential customers' needs, and how to satisfy them, to create innovative solutions, both physical and digital. At this stage, the students were also reminded that the ideas could be related to creating any type of value (Lackéus, 2018; see also Fayolle, 2007), and in their presentation to link practice with theories covered during the course. The groups were further expected to elaborate in their presentations how they evaluated the feasibility of their ideas in terms of: Is it doable? What will it take to do it? What kind of resources, financial and otherwise, as well as marketing would be needed?

Each group was provided with their own workspace, to create the coziest and most creative classroom settings available, and some of the groups also worked by turns in the so-called "Laboratory of Play", a creative, shared space in the university consortium (also see Heljakka & Blomberg, 2022). Those who joined in by Zoom worked in breakout rooms. There are, nevertheless, no special requirements for classrooms when employing playful learning as a pedagogical method.

The participants in class were provided with stimulation in the form of cardboard *Comicubes* (Heljakka & Ihamäki, 2016), and those using Zoom received digitalized Comicube blanks (Picture 1). *"The Comicubes is a creative prototyping tool, a hybrid combining images with a physical, three-dimensional cardboard cube. Hybridity means that the cube as a physical artefact can be given a digital layer or digital elements*." (Ihamäki & Heljakka, 2020, 7). It has been suggested that the power of play with materials extends the realm of ideation and designing new experiences in combination with game elements to brainstorm and co-create concepts (Ihamäki & Heljakka, 2020).

Students were asked to take pictures while working with the Comicubes. They used the cubes in multiple ways, for example, one of the groups as a kind of three-dimensional post-it note, while another constructed something demonstrating activity at the Playful Museum. One group used Comicubes as a cartoon-type thought bubble by writing on the cubes, taking pictures of themselves with them, and then employing the pictures in their presentation.

Picture 1. Students interacting with large scale Comicubes at Pori Laboratory of Play. Photographed by Katriina Heljakka, 2021.

[place Picture 1. here]

Following this workshop day, there were two seminar days where student groups presented the results of their ideation. The students were informed in advance that in addition to the first author, the assistant professor responsible for the course, there would be a "Shark Tank" for every group, to evaluate and give feedback on their ideas. The 'Sharks' comprised teachers and researchers from the School of Economics, as well as practicing stakeholders. The Shark Tank was remarkably multidisciplinary, representing the subjects of entrepreneurship, management, marketing, visual

culture, digital culture, and arts management. Thus, students received versatile feedback. Referring to a well-known business reality television series verbally and visually in the student instructions looked, on the one hand, to add playfulness and fun to the learning, and on the other to motivate the students to do their utmost in their teamwork presentations and learn from the sharks' comments.

The students came up with a number of ideas for a Playful Museum, for children and adults alike. There were five groups in total, each of 4-5 students. Some groups concentrated more on the learning aspect of playful activities, while others focused on the amusement dimension, along with stress relief and bringing families together. Some emphasized ideas employing augmented reality and gamified experiences, and others concentrated more on physical toys and games, or a combination of the former and latter.

In the feedback process, students were asked among other things: "Which factors in this course helped you to learn?" The following answers were fairly typical:

> "Group work! And the Shark Tank – the feedback of the Sharks." (Student 1)

> "It was nice to do group work that allowed us to use our imagination. And great to have the possibility to design and to use your creativity. The Shark Tank was a workable concept, which made the work groups' presentations feel like an exam. In my opinion, the absence of a written exam was a valid solution." (Student 2)

The playful learning tools, techniques, and tactics used in the two courses and cases described above are summarized in Table 1.

Table 1. Playful learning tools, techniques, and tactics (Whitton, 2018) combined with the playful approaches in our two case studies.

[place Table 1. here]

5 Supporting entrepreneurship competencies by play competencies

The pedagogic rationale for using playful approaches to learning in entrepreneurship education is grounded in the similarities that a playful mindset has to an 'entrepreneurial mind.' 'Sense of initiative and entrepreneurship' has been listed as one of the eight key competencies for all citizens (European Parliament and of the Council, 2006). 'Sense of initiative and entrepreneurship' is referred to as: "the capacity to turn ideas into action, ideas that generate value for someone other than oneself. Sense of initiative and entrepreneurship is a transversal key competence, which every citizen needs for personal fulfillment and development, active citizenship, social inclusion and employment in the knowledge society." (Bacigalupo et al., 2016, 7). Accordingly, the understanding of entrepreneurship, including a 'sense of initiative', forms the basis for the Entrepreneurship Competence Framework (EntreComp) developed by the European Commission with its learning outcome descriptors.

The framework is one of the measures to support entrepreneurship competence across the field of education and work. The framework comprises three competence areas, 15 competencies, and up to 442 learning outcomes (Bacigalupo et al., 2016). It tries to bridge the gap between education and work, while seeing entrepreneurship as a competence. The three competence areas of the EntreComp framework are entitled 1) ideas & opportunities, 2) resources, and 3) into action. Each comprises five competencies. Ideas & opportunities consist of: spotting opportunities, creativity, vision, valuing ideas, and ethical and sustainable thinking. Resources comprise self-awareness and self-efficacy, motivation and perseverance, mobilizing resources, financial and economic literacy, and mobilizing others. Into action, in turn, is about taking the initiative, planning and management, coping with uncertainty, ambiguity, and risk, working with others, and learning through experience (Bacigalupo et al., 2016, 12–13). Table 2 demonstrates the connection between entrepreneurship competencies and play competencies, rooted in playful approaches.

Table 2. Interfaces of entrepreneurship competencies and play competencies.

[place Table 2. here]

Table 2 shows that entrepreneurship competencies have several similarities with play competencies and are thus intertwined. For example, creativity, self-efficacy, motivation, ambiguity, and collaboration are included in both concepts. Further, entrepreneurship competencies have counterparts in the context of play. For example, a parallel can be drawn between the vision of entrepreneurship competencies and imagination and fantasy of play competencies, and spotting opportunities is close to exploration. Thus, it can be seen that entrepreneurship competencies and playful competencies are, in fact, two sides of the same coin.

6 Conclusions

At the beginning of the chapter, we posed a question: How might playful learning as a pedagogical method support the development of students' entrepreneurship competencies? Table 2 parallels entrepreneurship competencies and play competencies and thus demonstrates the linkage between the two. As far as the present authors are aware, this is the first attempt to make explicit the linkage between entrepreneurship competencies and playful competencies rooted in playful approaches (Bacigalupo et al., 2016).

Since entrepreneurship competencies and play competencies share several similarities and counterparts, it indicates that by employing playful approaches in university pedagogy, it is possible to support not only play and related skills but also entrepreneurship competencies. Building entrepreneurship competencies is imperative as they are seen as drivers of transformation, innovation, and growth in nations (Bacigalupo et al., 2016).

Furthermore, as stated in earlier literature on playful learning: "We MUST advocate for students the right to play" (Dearybury & Jones, 2020), and "Encouraging a spirit of play among learners allows

them to have space to imagine, explore and create in new, exciting and playful ways" (Whitton, 2018). It is then the educationalists' task to legitimize play in the work setting of an academic institution, and this chapter suggests it can be achieved by the deliberate playification of coursework offered to students.

Playful learning design must take into account the planning of physical space, and conceptual structure of the sequence of the learning process. Cable (2019) suggested a sequence of experiences that take place during a playful event:

1. The icebreaker or introduction, which is usually the first participatory activity for delegates.
2. The group-builder, which is designed to help groups form quickly.
3. The energizer, which happens after a lunch break or long task.
4. Parting ways (Eggleson & Smith, 2004), which bring the event to the conclusion and celebrates what has been achieved.

To conclude, we provide a summary of playful approaches in entrepreneurship education. Playful methods in entrepreneurship education based on Gray's definition of play (2015, 125) are activities that are: (1) gamified or playified approaches to learning offered as 'invitations to play' for the students, (2) motivated by the students' intrinsic goals, (3) guided by rules defined and interpreted creatively by the students themselves, and (4) call for the capacity to imagine and are conducted in an alert, but playful frame of mind.

Based on our course designs and findings, we suggest how Cable's playful event design can be combined with Gray's conceptual ideas of play and, consequently, be applied in designing learning experiences (see Figure 1).

Figure 1. The flow of playful course work is based on Cable's (2019) concept of playful event design and Gray's definition of play (2015).

[place Figure 1. here]

The integration of playful practice in entrepreneurship education has just begun. The authors' interest in the potential of playful learning in this particular context was spurred by the observations of how the introduction of playful tools, such as Comicubes, provides an engaging way for students to participate in play to achieve learning goals set by courses in the humanities and entrepreneurship. it We have aimed through our two case studies on playful learning in the higher education context to inspire readers to create their own designs for invitations to play in the context of learning situations.

Finally, it is essential to consider the sustainability of playful approaches in education. Whitton (2018) notes that it is crucial to appreciate that play is not equally accessible to all—"play is a privilege for those with the time, inclination, appreciation, confidence, social capital and ability to engage." To

fully embrace the opportunities that play provides in learning situations, we must include considerations on how to construct and offer inclusive playful learning experiences for adults of different ages –useful for any current and future entrepreneur, too.

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