

---

## Exceeding and digital materiality in the classroom – a student’s perspective on roleplay in higher education

Emanuela Marchetti

University of Southern Denmark

---

*Keywords:*

intra-action  
play practice  
rhythm  
play moods  
playful learning  
roleplay

### ABSTRACT

Roleplay has become a common learning practice across different educations in Denmark, among which Engineering and Healthcare. Building on the notion of play practices and moods (Karoff 2013, Toft 2019) and intra-action (Barad 2007), intended as a mutual entanglement of human and non-human actors, this study compares how engineering students from the program of Experience Technology (ET) and healthcare students from Occupational Therapy (OT) experience play during roleplay as a playful learning practice.

Ethnographic data were gathered during observations of ET students (during a course I have taught myself), while learning how to use ethnography in design practice, filming and observing each other while engaging with computer games. OT students were observed while learning how to perform the clinical dialogue, an ethnographic, diagnostic practice, in which therapists observe patients to formulate a diagnosis and negotiate a therapy together with their patients.

Interestingly both groups of students gradually increased the rhythm of their play during class exercises, switching in an exceeding play practice (Karoff 2013). The students started from a sliding play practice, while engaging with the provided digital technologies and media (phones, slides and videos), which gave a reference for the students’ actions in relation to the learning goals and mutual intra-action. For ET students, digital technologies are native supports for their professional practice, while OT students experience a haptic dissonance (O’Reagan and Nöe 2001), while learning from visual material an embodied practice. However, both groups experienced genuine play through an exceeding play practice (Karoff 2013), which is defined by a euphoric mood, hence enabling the students to enjoy and express themselves through loud laughs, wide gestures, and mutual teasing. Exceeding provided opportunities for the students to engage in the freedom of play, building their affinity spaces (Gee 2017), defined as bubbles for the students to socialize, flirt, or simply regain room for fun in the classroom.

---

---

Roleplay has become a common learning practice across different educational subjects in Denmark, including Engineering and Healthcare. Building on the notion of play practices and moods (Karoff, 2013; Toft, 2019) and intra-action (Barad, 2007), intended as a mutual entanglement of human and non-human actors, this study compares how engineering students from the program of Experience Technology (ET) and healthcare students from Occupational Therapy (OT) experience play during roleplay as a playful learning practice.

Ethnographic data were gathered during observations of ET students (during a course I have taught myself), while learning how to use ethnography in design practice, filming and observing each other while engaging with computer games. OT students were observed while learning how to perform the clinical dialogue, an ethnographic, diagnostic practice, in which therapists observe patients to formulate a diagnosis and negotiate a therapy together with their patients.

Interestingly both groups of students gradually increased the rhythm of their play during class exercises, switching in an exceeding play practice (Karoff, 2013). The students started from a sliding play practice, while engaging with the provided digital technologies and media (phones, slides and videos), which gave a reference for the students' actions in relation to the learning goals and mutual intra-action. For ET students, digital technologies are native supports for their professional practice, while OT students experience a haptic dissonance (O'Reagan and Nöe, 2001), while learning from visual material an embodied practice. However, both groups experienced genuine play through an exceeding play practice (Karoff, 2013), which is defined by a euphoric mood, hence enabling the students to enjoy and express themselves through loud laughs, wide gestures, and mutual teasing. Exceeding provided opportunities for the students to engage in the freedom of play, building their affinity spaces (Gee, 2017), defined as bubbles for the students to socialize, flirt, or simply regain room for fun in the classroom.

## **1. Introduction**

Current studies document the benefits of roleplay in formal and informal learning settings, such as promoting students' independent engagement with the subject and forms of peer-learning (Gee, 2007, Bennet et al, 2017). However, most studies focus on the learning outcome of roleplay, generally not investigating if and how the students experience any genuine play during playful learning or if play is not just experienced as part of the given assignment.

Starting from these insights, this study investigates how students in higher education experience roleplay, also considering how digital media and the environment contribute to the framing of their play.

Play is approached in this study as an essential element of playful learning, necessary to enable the students to immerse themselves in the subject and engage in problem solving and in-depth reflection through simulative enactment. This enactment is seen as the trigger for co-creation of meaning, which in play supports the players in

creating their own reality and have fun. In playful learning it supports the students to reflect on the subject at hand (Vygotsky, 1978; Gee, 2007; Karoff, 2013).

Data for this study was gathered through qualitative ethnographic observations with bachelor students in Occupational Therapy (OT) at University College Lillebaelt (UCL), and in ExperienceTechnology (ET) at the University of Southern Denmark (SDU). The study with UCL was part of the *ErgoWorld* project, which was funded by the Danish InfinIT foundation and was conducted within a consortium involving Danish OT educations and practitioners in Denmark (Marchetti, 2020).

In the next section, the conceptual framework of the study and related work are presented (2). The empirical work and methodological framework are presented in section 3, and results from the study in section 4, finally conclusions are provided in section 5.

## 2. Theory – Play and Learning

Roleplay is acknowledged as a central element in the practice of playful learning, it is generally approached as a resource for in-depth reflection and shared sense-making (Gee, 2007; Resnick, 2004). Roleplay is expected to enable the players to simulate and imagine themselves in an experience related to a targeted topic, so to engage in collaborative meaning making, in-depth reflections, and deeper understanding of the topic (Gee, 2007 & 2017; Resnick, 2004). On the other hand, play is often perceived by teachers and researchers as a resource for eliciting motivation in the learners, making a school subject more appealing. The risk of this approach is, however, to look at play as “sugar coating”, relegating play to a superficial role, failing to leverage the cognitive engagement necessary to learning to take place (Resnick, 2004).

However, the combination of play and learning can appear contradictory. Play suggests freedom and self-motivation, while learning, no matter how a student might like a subject, is not always self-motivated and might involve a degree of coercion. Play also defies precise definitions, it is generally understood as a self-determined activity, aimed at the players’ fun (Gee, 2017; Karoff, 2013; Sutton-Smith, 1997). However, play can be also seen as a serious practice, involving rules, strategic thinking, and competition (Huizinga, 1944). The competitive side of play has been investigated in the study and adoption of gamification (Deterding et al, 2011), in which learning activities are reconceptualized so to incorporate rules from competitive games such as computer games, board games, and athletic competitions.

In general, the goal of combining play and learning is to enable learners to independently explore a targeted topic and co-create meaning together. However, there is a risk that play might be experienced by the learners as another exercise to be executed, eventually to please the teacher. In such circumstances playful learning would fail to engage the learners’ imagination, which according to literature (Gee, 2017; Vygostky, 1978) is a necessary precondition for learning and understanding. Starting from these premises, in this study I aim at investigating how students in higher education are experiencing play during playful learning, how they interact with each other while they engage in roleplay activities and if they are playing at all. This paper represents a follow up from Marchetti (2020) in which I analyze play in playful learning looking at the experience of OT students,

reconducting play to its original meaning as a self-determined, fun activity centered on the players' needs. In this case, I wish to expand from the previous study, comparing ethnographic observations of OT students captured during exercises of roleplay targeting diagnostic techniques for patients affected by dysphagia, with ET students in a course in Interaction Design captured during a roleplay activity targeting visual ethnography with technology users. In both cases, the students are shifting turns, playing the role of the therapist or designer, who oversees the situation and is supposed to act competently towards a patient or user. I find these activities particularly interesting because they both employ roleplay aiming at collaborative meaning making, while mirroring in the classroom the collaborative meaning making processes, which would take place in actual professional practices. Both learning activities can be reconducted and analyzed as simulative roleplay (Sutton-Smith 1997, Vygotsky 1978), as the students have to play as a service provider and a client, recreating a situation resembling make believe play, what children do while playing as doctor and patient or as shop assistant and customers.

In my research, I am interested in problematizing the "play" element in playful learning, verifying if genuine play has any place at all in playful learning from the perspective of the players/learners. Taking inspiration from Latour (2005) who aimed at analyzing the social in the social science, I argue that play in playful learning and the social in social science share a similar condition. In fact, both concepts are approached as given but undefined material, able to define themselves in a self-referential way (Latour, 2005), and to justify their respective expressions of playful learning and social sciences. This perspective is confirmed by Huizinga (1944) and more recently by Karoff (2013), according to whom, any human practice including learning can be analyzed as a form of play, as humans built their society and culture through play (Huizinga, 1944). However, this association of play to culture and human practice does not clarify what play is, or how people might experience play while engaged in other practices such as learning.

In general play appears as an elusive concept, lacking a clear purpose other than the players' fun (Sutton-Smith, 1997). Play has been defined as a transformative practice, in which players create their own reality, becoming detached from their present circumstances (Vygotsky, 1978; Bateson, 1972; Gee, 2017). This aspect has been interpreted by Vygotsky (1978) as a precondition for training abstract thinking in children, who through play find themselves addressing hypothetical situations and evaluating the effects of possible courses of actions, hence engaging in abstract problem solving. Moreover, according to Gee (2017) players can engage in abstract problem solving creating their own "affinity spaces", defined as spaces emerging by the players' mutual interactions and surrounding contexts. According to Gee (2017) affinity spaces constitute a virtual resource for play and learning to occur.

Given the difficulty of defining play per se, increasing attention has been directed towards identifying what makes play happen. Bateson (1972) defines play by its "framing", which is given by a meta statement to be reconducted to the liar's paradox, meaning that whatever will happen from now on is play and should not be interpreted as in real life. In this way, Bateson sets the grounding to understand roleplay, as a histrionic reproduction of real life situation, arguing that this kind of play occurs also in animals, for instance in the case of

wolves who play by showing their teeth to each other and engaging in a fight, but stopping before hurting each other. Vygotsky (1978) and Sutton-Smith (1997) emphasize the role of “play things” or toys in the framing of play. Players opportunistically use any available object as a toy, reconfiguring the meaning of real-life objects with respect to their play. Moreover, players are also inspired by their toys of choice to engage in new forms of play. In this way, toys are contributing to the framing of play, acquiring new meanings, which might be unexpected to the players themselves. This aspect is discussed more recently by Toft (2019), who defines play as a “rhythmic assemblage”, in which play emerges from a rhythmic repetition of actions with available things, so that it is impossible to detect who acts (humans or non-humans). Hence in play everything (players and toys) vibrate, influencing each other in establishing the next move in an increasing rhythm of action. In her analysis Toft builds on the notion of intra-action (Barad 2007), which is defined as a form of interaction in which human and non-human equally participate, leading to an ambiguity in figure-ground relationship between humans and non-human actors, as one repeatedly takes over to inspire the next move. A similar perspective can be found also in Latour (2005), who claims that in human practice the social and the material are always interconnected and indistinguishable, equally contributing to action and creation of meaning. According to Toft (2019), the intra-action between players and their toys is defined by its rhythm and repetition of actions, which can be seen for instance in nursery rhymes and physical play.

A central concept related to the framing of play is that of play moods, which are defined as “the particular concept of sense and feeling of being” in play, while on the other hand play practice can be defined as “the concept of all the doing in the playing activity” (Karoff, 2013, p. 76). The concept of play moods is derived from Heidegger’s (2001) notion of mood as a way of being in the world. Moods are related to that of attunement, which is defined as our in-built disposition in experiencing moods and in our condition of being in the world. Karoff argues that moods are inherently interconnected with play practices, as if they were a form of attunement for being in play, so that being in play means being in a play mood. In this sense, play moods emerge as a framing resource for play, in the terms of Bateson, enabling play activity to take place and for being understood in its own terms by players and non-players (Karoff 2013). More specifically Karoff identifies four play practices: sliding, shifting, displaying and exceeding. Each of these practices is respectively connected to a specific play mood: devotion, intensity, tension and euphoria (Table 1). These practices and their moods can be understood in relation to their rhythm (Karoff 2013, Toft 2019), from a predictable and repetitive rhythm based on iteration of actions, to a more chaotic rhythm, in which repetition is being challenged in favor of change.

**Table. 1** – Spectrum of play moods and their respective practices after Karoff (2013).

<b>Play Practice</b>	Sliding	Shifting	Displaying	Exceeding
<b>Play Mood</b>	Devotion	Intensity	Tension	Euphoria
<b>Rhythm</b>	Repetitive and quiet	Faster and less repetitive	Fast and increasingly chaotic	Chaotic and unpredictable

Sliding is distinguished by a strong repetitive rhythm, in which players tend to continue what they were already

doing. The corresponding mood to sliding is devotion, defined by a feeling of being in flow and focused. The second practice is shifting, which has also a repetitive rhythm, however, the players will try now and then to break the rhythm and try to surprise each other. The corresponding mood to shifting is intensity, which is characterized by excitement and expectation of the unpredictable, it is often linked to intense physical play. Displaying is characterized by constant change and it is typical of informal performing play, in which the players show off themselves and their skills for instance through “dancing or singing, taking photos of each other, or dramatic (role) playing” (Karoff, 2013, p. 81). Tension is the corresponding mood of displaying, in which player are ready to show themselves and aware of others. Finally exceeding represents the opposite of sliding, as players are expecting to be surprised all the time, in this sense the rhythm of play is “out of beat” (Karoff, 2013, p. 82), its corresponding mood is euphoria, defined as “intense expectation of silliness” (Karoff, 2013, p. 84), in which players are expected to propose new surprising silliness to keep their euphoric mood. In my study, the notions of intra-action, play moods and rhythm provide critical lenses to understand how students experience roleplay with each other during playful learning activities in the classroom in higher education settings.

### 3. Methodology

Data for this study was gathered through ethnographic observations on two case-studies, involving OT and ET students while engaged in roleplay activities during classes. Observations with OT students were conducted at the University College Lillebaelt in Odense for the Ergoworld project, which was funded by the InfinIT foundation (Marchetti and Petersen, 2019). OT is defined as a rehabilitation practice, aimed at supporting patients in learning how to transform daily activities into therapies or how to make such activities less painful when patients are dealing with chronic pain. The goal of the Ergoworld project was to design a digital simulation which could support roleplay practice for OT BA students (Marchetti 2020; Marchetti and Petersen, 2019). The students from SDU are enrolled into ET, an engineering education with focus on design and development of interactive systems, like games, websites and apps, or tangible installations. As part of their education, ET students are supposed to learn ethnography, to be able to observe their future users, understand their needs, and subsequently develop suitable digital systems.

In both case-studies, data was gathered through close observations and partial recording of small groups of 2-3 students (Preece et al, 2019; Pink, 2006). Note taking and ethnographic sketching (Causey, 2017) were adopted as additional techniques for storing, analyzing, and documenting data.

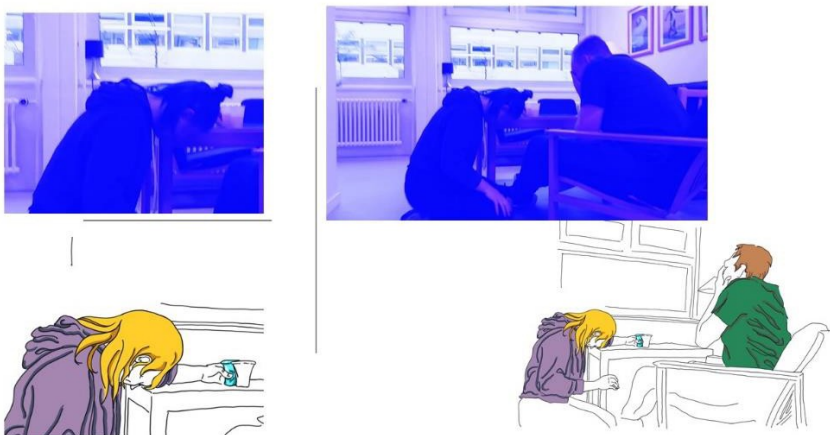
The OT case-study involved 15 to 20 students per class and 8 teachers from the partner schools, such as Metropol in Copenhagen, UCL and SDU in Odense. A series of video recordings were gathered and analyzed, focusing on how the students engaged in roleplay during classes and the role of available technologies.

During observations, OT students were engaged in roleplay exercises, playing respectively the roles of therapist and patient while practicing a diagnostic technique to apply to patients affected by dysphagia. The students

were supposed to learn how to hold the head, neck, and back of the patients, enabling them to drink and eat a cookie, while at the same time evaluating their condition.

The ET case-study involved circa 25 students during an exercise in ethnography, where the students had to take turns playing the roles of the ethnographer and of the user, observing each other while playing a computer game. This activity was segmented in three parts. First the students were supposed to select a game to be played by their teammates when it was their role to be the user, second the students were supposed to take turns observing and filming each other with their mobile phone while playing, and third the students had to upload their recordings on their laptops, cut clips and edit simple video collages illustrating the experience of the user-acting student with the game (Yliriksi & Buur, 2007; Pink, 2006). During the activity, I observed the students during the second and third stage, while the students were observing each other and during the editing of the video collage. A video collage is defined as a video composed of different clips, which illustrates a practice, and the skills or the challenges encountered by the people involved (Yliriksi & Buur, 2007). Following this practice, the students had to film each other for circa 10-15 minutes while playing and then selected clips from each of their videos to compose a video collage of the length of maximum 5 minutes, illustrating the most critical moments of the players' experience, for instance how they started the game and episodes of success or challenges.

The data discussed in this study were gathered through observations, annotation, and ethnographic sketching (Causey, 2017). In order to protect the privacy of the participants, I have partially recorded their sessions and while present I took sketches on paper to capture their social interaction, facial expressions, gestures and bodily tension in their posing. These three aspects of interaction were used as lenses to analyze how they were interacting with each other and how they were eventually playing. I focused my analysis in identifying a specific play mood and play practice, in relation to the students verbal and bodily interaction with each other and the rhythm of their actions (Karoff, 2013; Toft, 2019). The drawings displayed in this study (Fig. 1) were created a-posteriori on a tablet with a digital stylus, these provided a source of interpretation and translation with respect to the observed interactions (Causey, 2017).



**Figure 1. From screenshot to drawing.** On the left details of the girl's pose of head and head have been slightly amplified in the drawing. On the right the screenshot and the finished drawing.

I started my analysis looking at my videos, identifying key sequences from which I have taken screenshots and transferred them to my tablet. As I started drawing on my tablet, I was naturally compelled to rewatch the footage and in analyzing details of the interaction among the students, specifically: facial expressions, bodily gestures, posture, tension, and closeness to each other. The act of drawing enabled me to zoom in and out on the details of the screenshots, identifying subtle details in the actions, attitudes and intentions of the subjects (Causey 2017). In this sense, drawing itself worked as a magnifier regarding the students' intra-action and enabled me to focus on specific details, which I might have overlooked by simple observation and I could emphasize them in my final sketches to illustrate the situation in a lively way. To be able to focus on fine details is a precondition to be able to draw any subjects and it is especially important when drawing people and facial expressions. Acknowledged drawing learning methods, like that proposed by Edwards (2012), argue that in order to draw from reality requires to "switch" your observation mode, from the mode in which we look at things normally to a different mode in which we do not perceive known objects anymore, but all the details of lines and forms that constitute the objects we face. Edwards' method requires training the ability to switch through preparatory exercises of pure contour drawing, in which the learner starts by observing every detail of a subject before drawing and to focus on negative spaces in between the features of the subject, to become sensitive to actual lines and forms of the subject. I applied this same practice to the drawings I made for this study, so to capture details that could faithfully reproduce the attitudes and intra-action of the students. This practice enables observation of subjects more in detail than during a typical video analysis, as reproduction of a human subject through drawing is challenging hence requires intense concentration. Moreover, the advantage of digital drawing over traditional techniques is that it allowed me to zoom in and out on my drawings to improve specific details, to copy and paste specific parts of older drawings into new ones, hence reflecting on how the students changed their posture and expressions during their intra-action while saving time.

Hence, the resulting drawings are not the same as a screenshot from videos, as contrary to the screenshots sketches already embody meaning derived from the author's analysis and interpretation of the subjects, in this sense these are already analytical representations of the situation itself.

At a second stage, colors were selectively added to the upper body of the students, to emphasize their changes in their body posture related to changes in their play mood and practice during their roleplay session (Fig. 1). Moreover, in the resulting sketches I have altered the features of the represented students, so to protect their privacy more effectively than in blurred images, while at the same time showing clearly their facial expressions and physical attitude (see fig 1 as an example of this drawing technique from screenshot to digital drawing).



#### 4. Play in playful learning a critical perspective

This section presents the result from the study, first describing the professional practice that the students were supposed to learn during roleplay, and second discussing how students engaged and experienced genuine play through exceeding play practice, during roleplay activities in the classroom.

##### *Roleplay and targeted practices*

The students participating in this study come from different educations. OT is a healthcare education, with focus on rehabilitation and wellbeing of patients (Bennet et al, 2017; Kielhofner, 2008); ET is instead an engineering-design education with focus on the making of digital systems and participatory design methodology, hence the students are trained in actively involving users in their creative process since its start (Preece et al, 2019). The participatory methodology taught to ET students aims at showing that design is a mediated communication with potential users, aimed at delivering a good experience to the users in their daily practices. In this sense, both educations aim to prepare students to gain an awareness about how their future work will affect the lives of other people.

However, OT focuses primarily on people and their wellbeing, while ET focuses on making artefacts and regards people as receivers of these artefacts.

In OT education roleplay is adopted to prepare students to perform the clinical dialogue (Marchetti, 2020; Marchetti & Petersen, 2019; Kielhofner, 2008), a diagnostic and therapeutic practice, which could be compared to ethnographic participant observations (Ylirisku & Buur, 2007). OT therapists are supposed to formulate a diagnosis or a therapy by observing and participating in the patients' activities, interacting physically and verbally through the artefacts involved in such activities. For instance, OT teachers argued that the therapists might gain rich insights on the patients' condition by watching them peeling an apple, an apparently neglectable activity. In peeling an apple (Fig. 2), people deal with different actions such as:

- Holding the apple and the tool (knife or peeler) with a firm grasp but not too hard,
- Coordinate movement to rotate the apple and move the tool around the apple surface,
- Each tool has a different shape and requires different posture and gestures to be used.

Peeling an apple is a simple activity, which nonetheless illustrates the cognitive and physical complexity of human activities and interaction with material tools and objects.



**Figure 2.** Two different ways of peeling an apple with a peeler or a knife, holding of apple and tools can change required poses, gestures, strength and grasp depending on the selected tools (drawings by the author).

In performing the clinical dialogue, OT therapists observe the patients, but they would also come closer and hold their bodies: hands, arms and back, to find out when pain occurs and how to keep it under control.

Alternative tools might be recommended, like peelers with larger handles, which might require less precision or strength. So defined, the clinical dialogue is an embodied practice, requiring the students to acquire skills in observing and physically interacting with the patients as forms for clinical sense-making (Kielhofner, 2008).

The clinical dialogue can ultimately be defined as a form of intra-action (Barad, 2007), a participatory entanglement between therapists, patients, and their everyday tools.

Roleplay is regarded by OT teachers as an effective learning practice, to enable the students to learn and reflect on their practice. The teachers typically start their lecture with a slide presentation, showing videos on a specific technique, afterwards they demonstrate upon a volunteer student and invite the students to try on each other, switching roles between patients and therapists.

During one of my observations, the students were invited to a roleplay activity focused on how to examine people affected by dysphagia, a difficulty in swallowing foods or liquids caused by a stroke. The students were supposed to try out techniques to hold the neck, head and upper body of the patient, enabling them to sit, drink and eat, hence the students received glasses of juice and cookies to give to each other. A wheelchair was also provided, where the patient-acting student had to sit, bending their neck on the back, to simulate lack of muscular control. The students had to learn to become responsive to each other's bodies, to feel on someone else's body how to correctly perform these techniques with respect to individual posture, movements, and muscular tension.

ET students must learn to master visual ethnography (Pink, 2006; Ylirisku & Buur, 2007; Preece et al, 2019), to be able to conduct observations and analysis of video recordings of potential users of their interactive systems, while dealing with their daily activities through existing systems or with more or less developed prototypes.

The goal of this practice is to discover current issues with existing systems or with the practice itself, how

existing systems and practices could be improved through the design of new systems. A special focus is dedicated to users' unarticulated needs (Skaggs, 2018), issues and potential desires that are either overlooked or hard for the users to express, hence encouraging ET students to develop empathy for their future users (Löwgren & Stolterman, 2007). During my classes in the subject of Interaction Design, I apply forms of roleplay to enable ET students to practice visual ethnography. In this study I analyze data that I have gathered during my course, while students were practicing observations and analysis of video recordings, to improve the methodological training for my students. For this purpose, I have invited the students to work in pairs, where each student has to pick a game and invite their partner to play the game while filming for circa 15 minutes. The students are then supposed to upload the gathered videos on their computer and to create video collages that would illustrate the gaming experience of their partners. By video collage it is intended as a video editing practice, in which researchers cuts clips from one or multiple video recordings and combine them into one video, showing a potential user in action, so to tell a story about their daily practice or experience with specific tools (Yliriksi & Buur, 2007). In making a video collage, the researchers would strive to collect meaningful occurrences regarding typical use of a system, highlighting successful experiences, difficulties, and common mistakes as well as the user's desires for improvements in their practice.

In both case-studies, roleplay can be compared to a form of apprenticeship (Rogoff, 1990; Bennet et al, 2017), in which the students are led by teachers to collaborate with each other in practical activities, aimed at preparing them to perform the target professional practice in an independent way. A main difference, which can be identified in the two cases, is the role of digital media. In the ET case, the students are using their mobile phones, computers, and video editing software, as they would do while performing visual ethnography in real life, so the roleplay situation is more or less realistically reproducing their future professional practice. OT students are supposed to learn an embodied practice, situated and unfolded through the bodies of the therapists and their patients, relying upon videos and images viewed through their mobile phones or computers. This creates an additional challenge for OT students, as visual media provide an approximative reproduction of the targeted professional practice. Hence, OT students established a back-and-forth dynamic from their bodies to their phone and back, to verify if they were acting right, based on how the actions of the therapists and patients looked like in their video resources (Marchetti, 2020). In this sense, OT students experienced haptic dissonance (O'Reagan & Nöe, 2001), as they were provided visual resources to learn an embodied practice. Hence, they tried to repair this dissonance, assigning a zoom-out function to the videos, so that they looked at the videos to check how the activity looked like from afar, but zoomed-in into the practice through their bodies, reflecting on small details of their actions and how these felt on each other. This dynamic was observed across all the groups, as the students looked at their phones and tried to reproduce what they saw, discussing together their impressions: "Oh, it should look like that, see my back has to be straight here," and pointing at a specific passage in the video: "But here I get closer". Moreover, while referring to specific sequences from the videos and guiding each other's hands to the right position, two girls were saying to each other: "You should feel a slight pressure here!" and "You should act more gently here!" (Marchetti, 2020).

However, the roleplay activity so far described, still resembles an exercise, even though it does not involve reading and writing texts.

### *Play in playful learning – space, play moods, practices, and rhythm*

In this section, I will try to articulate how the students were able to engage in play, making use of specific framing (Bateson, 1972), involving the creation of affinity spaces (Gee, 2017) and switching across play moods and their respective practices (Karoff, 2013), altering through tacit agreement the rhythm of their mutual intra-action (Toft, 2019; Barad, 2007).

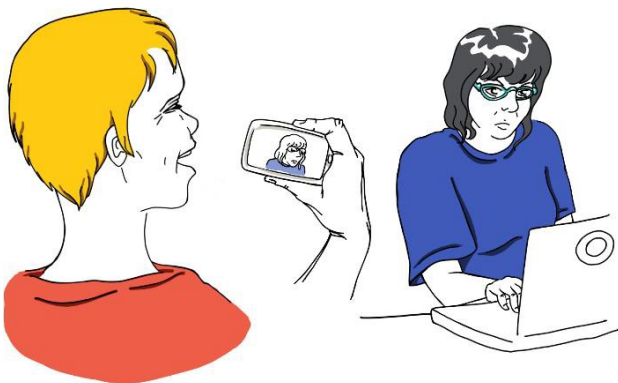
During my observations of OT and ET students, roleplay activities started in the moment they left the classroom to find a quiet spot for themselves away from the teachers. In this sense, the classroom with chairs oriented towards the teacher and the teacher performing in front of the students contributed to framing a learning activity. On the other hand, the search for a spot away from the classroom and the eyes of the teacher provided the first framing resource for play. The action of finding a new spot can be interpreted as the first step towards play intended as a self-determined activity (Sutton-Smith, 1997; Karoff, 2013) and the creation of an affinity space (Gee, 2017). ET students also chose autonomously the games for their partners, which also provided a framing resource creating conditions for the students to challenge each other, similarly to what happens in sports and athletic events (Huizinga, 1944; Deterding et al, 2011). The chosen game elicited different emotional responses in the user-acting students, depending on the level of difficulty. Before leaving the classroom, a girl approached me and asked with a smirk: “Can we pick a super-hard game, to put the other in trouble and see how they respond?”. Several students had fun by confronting their partners with challenging games and laughed at them while they were playing. A popular game for this activity was “The Impossible Game”, a one-button platformer game, challenging the players in difficult puzzles, which require leading a cube to a goal destination, while dealing with spikes and pits.

As the students engaged in roleplay, they explored different play moods and practices. Initially they started acting according to a sliding play practice and devotion mood (Karoff, 2013), their play was quiet and repetitious, driven by the goal of making sense of what they were doing. OT students engaged in repeating the same gestures multiple times, laughing at each other when establishing eye- contact and when something in their actions felt wrong. OT students were trying to learn how to sense each other through their bodies, when performing the drinking routine and the glass reached the mouth of the patient-acting student an intense pause

---

\* <https://impossible.game/>

followed, in which they both tried to sense when the drinking act started and ended, imagining how a patient and therapist would have felt and acted in such circumstances. ET students started their play with the revelation of the selected games, which was interpreted as a challenge or ironic provocation, eliciting humor across the different pairs of students. This event generated various emotional responses, emphasized by facial expressions such as laughs or ironic smirks as the user-students pretended to be scared by the game, or shrugging of shoulders and overconfident smiles. For instance, a student said: "Is that all?" and another said: "Uhm, I got this!" They were both acting as expert gamers, not easily intimidated. Interestingly ET students were dealing with a game within the game, as they were supposed to play a digital game while being observed during a roleplay activity. As the selected games were generally challenging, the students initiated a sliding, quiet play practice, in which one student focused on playing the game and the other focused on recording. Respectively the students were responding emotionally to the situation, the user-acting students expressed through their face, posture, and gestures their concentration on the game and the researcher-acting students were observing and laughing at their partners when they encountered difficulties (Fig 3). The same interaction occurred when they switched place, however, their act was less spontaneous, they overacted their mutual surprise and teasing responses as if to entertain each other increasing the rhythm of their teasing. In this way ET students switched from sliding to a display play practice and tension mood (Karoff, 2013).



**Figure 3.** ET students during the first stage of their roleplay. The girl on the left is focused on the game while the boy on the right is filming and laughing at her challenges.

It felt as if by being freed by the task of playing the digital game, which elicited a focused and quiet play dynamics, the students needed to release their tension by teasing and newly surprising each other, overemphasizing their intra-action. The chosen digital game participated as an actor in the intra-action, in terms of switching the figure-ground relation (Toft, 2019), contributing to foster resonance between the students.

A similar dynamic was observed in OT students, as the provided videos participated in their mutual intra-action as learning resources but also as social actors, creating resonance and inspiring jokes among the students. Some of the OT students switched from sliding to exceeding play practice (Karoff, 2013), introducing chaotic variations and rapidly increasing the rhythm of their intra-action. This dynamic was especially evident in mixed gender groups in combination to physical closeness, which seemed to cause feelings of embarrassment and at times flirting attempts. In one example, a female student was holding the neck and the hand of a male student

acting as patient, as she approached the glass with juice to his mouth, they both experienced embarrassment as this act recalled physical intimacy, in response they starting laughing and acting silly (fig. 4).



**Figure 4.** OT students switching to euphoria and exceeding, bursting to laughs and bending forward.

In repeating this action, the students switched quickly from a devotion to a euphoria mood, they burst out laughing, acted loudly bending forward and communicated their mood through broad gestures of the arms and torso. Verbal exchanges occurred to point at incorrect actions: “You are strangling me!” or “Help! My therapist is killing me”. In other cases, a male student remarked the opportunity for intimacy as he approached closer to the female giving him a cookie, his posture looked a bit childish and staged. In response the female acted embarrassed and with a smile encouraged him to eat the cookie.

Considering these insights, it seems that switching to euphoria and exceeding play practice enabled the students to cope with the embarrassment generated by physical closeness. At the same time, the switch to exceeding contributed to the creation of an affinity space (Gee, 2017) for the students to act to socialize, have fun, and maybe flirting as if they were in a social context and not in class.

ET students switched to euphoria and exceeding during the second part of their activity, while the students were reviewing their videos, one after the other, to select interesting clips and paste them together in their video collage. While watching the videos, the students expressed euphoric mood by teasing each other. A student teased his partner because he did not show any emotion during his gaming sessions, he laughed loudly pointing at the screen saying: “How can you do that?” and as I approached them to see what was happening he said: “Can you see? I don’t know how this is possible [making a puzzled smirk] he is just still! He did it in purpose, so I have nothing to analyze!”. They both laughed and then the other student acted as if he was unaware, laughing now and then. In other cases, the videos showed concentrated and at times frustrated students, frowned foreheads, contracted lips and eyes. The students were laughing at each other saying: “We are going to take this... and this!” while selecting clips, meaning that the clips were funny as if the goal of the video collage was to tease and bully each other. This form of play resembles the fight roleplay displayed by wolves and discussed by Bateson (1972), in which the students have tacitly accepted that they are not really bullying each other, however, acting in this apparently disrespectful way made their activity fun and lively. As in the case of OT students, ET students expressed their euphoria mood with loud laughs and broad bodily

gestures: shaking their head, lifting and waving their arms and hands, bending forward or getting closer while theatrically laughing at each other (Fig. 5).



*Figure 5.* ET students loudly laughing at each other while editing their video collage.

As the teacher came to supervise and provide feedback to the students, it became clear that the presence and absence of the teacher (including myself with my own ET students) reframed their euphoric play into devotion-sliding and learning, but as soon as she left, the students engaged again in euphoria and exceeding play. At times, the students tried to involve the teacher in their jokes, as if they were explaining while they were laughing and at the same demanded for attention from the teacher to ask for feedback.

Based on these insights, I find that playful learning constitutes an ambiguous practice, in which play and learning are supposed to be harmoniously entangled, so that the students can focus on problem solving or conceptual thinking, independently engaging with a learning topic through imagination and collaboration. The learning aspect of playful learning is framed through the classroom context and the teacher's presence, play is instead framed by the teacher's absence and the students' independent choice of a suitable spot. This move outside the classroom seemed to provide a resource for Bateson's (1972) tacit meta-statement that what will happen in the chosen spot will be play as well as for the creation of an affinity space (Gee, 2017). Interestingly I noticed that a few ET students, who were in doubt on how to proceed stayed arguing in the classroom, but as they got further instructions, they were finally ready to leave.

As the students engaged in roleplay, they started from quiet, repetitious, and focused dynamic, which could be described as a sliding play practice. But as they became more involved, they switched towards a more chaotic form of play, ending in euphoria and exceeding play practice. In this sense, my study suggests that students leverage exceeding play practice, to be able to engage in genuine play during playful learning in the classroom. Moreover, it emerges from my study that exceeding play practice provides a resource for creating an affinity space only for the students, to express themselves socially and have fun. Exceeding through its crescendo, in chaotic rhythm and euphoric mood, provides a bubble for the students to detach themselves from the school reality and really play.

## 5. Conclusion

Play and learning can appear as antithetic concepts in relation to fun and self-motivation, however, their combination in playful learning is a pedagogical approach with a long history (Vygotsky, 1978). As several studies point at the advantages of playful learning in different disciplines (Bennet et al, 2017; Gee, 2017), it can be doubtful if playful learning can elicit genuine play in learners, especially within a school setting. Therefore, this study attempts at reconceptualizing play in playful learning, reconducting play to its original meaning and framing play as an intra-action, defined by the players' mutual actions and their physical context (Latour, 2005; Barad, 2007). The study builds on ethnographic data, gathered by observing two classes of students enrolled in engineering and healthcare education at bachelor level during roleplay activities.

However, being that play is an elusive concept in itself, I attempt at referring to classical definitions of roleplay as a self-determined, transformative activity in which players create their own alternative reality to enjoy themselves (Vygotsky, 1978; Bateson, 1972; Sutton-smith, 1997; Huizinga, 1944). More recent literature provides valuable concepts to analyze how students were experiencing play during roleplay activities, in relation to play moods, practice, and rhythm (Karoff, 2013; Toft, 2019).

This study suggests that students experience genuine play during playful learning, however, they need first to detach themselves from the learning framing given by the classroom and the teacher. Leaving the classroom appears as the first step for the students to frame their play, enabling the students to distance themselves from a learning mood and get into a play mood. Finding a suitable spot can also be interpreted as framing resource for play through a metastatement in the terms of Bateson (1972), meaning that whatever will happen in that spot should be interpreted as play. The students then started their roleplay activity through a sliding play practice and devotion mood (Karoff 2013), focusing on their next steps. But as they engaged deeply in their intra-action with each other and the artefacts involved (mobile phones and computers), they quickly switched to increasingly chaotic rhythms culminating in an exceeding play practice, marked by broad bodily gestures, loud laughs, and mutual teasing.

Two main implications result from my study. First, independent engagement provides a main resource for framing play, second, rhythm and play practice provide an effective lens to analyze the students' play. Moving out of the classroom and finding a suitable spot seems like the first step for students to form their affinity space for play (Gee 2017). This has implications for the teachers' role, as the teachers' presence implicitly provides framing for learning and their absence framing for play. The teachers I have observed seem conscious about their influence and take their time before visiting the students for supervising them. On the other hand, an increasing rhythm, marked by loudness and teasing, provides resources for students to tacitly reconfigure their intra-action and create a bubble for real play and fun. In this sense, switching across the spectrum of play practice and mood emerges as a framing resource for play (Bateson, 1972; Heidegger, 2001). This also implies that play rhythms and moods, and resulting loudness, are elements of playful play, signalling that the students are detached from their present circumstances and have successfully created a fun alternative reality for



themselves. Detachment from reality is defined by Vygotsky (1978) and more recently Gee (2007 & 2017) as a necessary precondition for learning, as it enables personal engagement with the topic and with problem solving, enabling the students to imagine themselves immersed in a hypothetical situation and reflect on eventual courses of actions. In this sense, play moods and rhythms provide analytical lenses for the teachers to evaluate if the students are actually playing with each other or if they need support, eventually requiring the teachers to step back.

## References

- Bateson, G. (1972). *Steps to an ecology of mind*. University of Chicago Press.
- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.
- Bennet, S., Rodger, S., Fitzgerald, C., & Gibson, L. (2017). Simulation in Occupational Therapy Curricula: A Literature Review. In *Australian Occupational Therapy Journal*, 64, Occupational Therapy Australia, pp. 314-327.
- Causey, A. (2017). *Drawn to see. Drawing as an Ethnographic Method*. University of Toronto Press.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: defining "gamification". In *Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments*, pp. 9-15.
- Edwards, B. (2012). *Drawing on the right side of the brain*. TarcherPerigee.
- Gee, J. P. (2007). Learning Theory, Video Games, and Popular Culture. In Drotner, K. and Livingstone, S. (eds.) *The International Handbook of Children, Media and Culture*. Sage, pp. 196-213.
- Gee, J. P. (2017). *Affinity Spaces and 21st Century Learning*. Educational Technology.
- Heidegger, M. (2001). *Being and Time*. Blackwell.
- Huizinga, J. (1944). *Homo Ludens*. Routledge.
- Karoff, H. S. (2013). Play practices and play moods. *International Journal of Play*, 2(2), pp. 76-86.
- Kielhofner, G. (2008). *Model of Human Occupation: Theory and Application*. Wolters Kluwers Health.
- Latour, B. (2005). *Reassembling the Social. An Introduction to Actor-Network-Theory*. Oxford University Press.
- Löwgren, J., & Stolterman, E. (2004). *Thoughtful interaction design: A design perspective on information technology*. MIT Press.
- Marchetti, E. (2020). Are they playing? Analysing "play" in playful learning in Occupational Therapy education. *E-learning and Digital Media*, 1.17. doi:10.1177/2042753020980114

- Marchetti, E., & Petersen, C. K. (2019). Steering forces in learning and role-play: The case of occupational therapy education. *13th European Conference on Games Based Learning (ECGBL 2019)*, Odense, Denmark, 478-485.
- Pink, S. (2006). *Doing visual ethnography: images, media and representation in research* (2nd ed.). London: Sage.
- Preece, J., Rogers, Y., and Sharp, E. (2019). *Interaction Design. Beyond Human Computer Interaction*. Wiley and Sons.
- Resnick, M., (2004). *Edutainment? No thanks. I prefer playful learning*. Associazione Civita Report on Edutainment, 14, 1-4. Retrieved from <https://www.media.mit.edu/publications/edutainment-no-thanks-i-prefer-playful-learning-2/>
- Rogoff, B. (1990). *Apprenticeship in Thinking: Cognitive Development in social context*. Oxford University Press.
- Skaggs, P. (2018). Design thinking: Empathy through observation, experience, and inquiry. *Society for Information Technology & Teacher Education International Conference, Washington DC, United States*, 1168–1172. Retrieved from <https://www.learntechlib.org/p/182673/>
- Sutton-Smith, B. (1997). *The ambiguity of play*. Harvard University Press.
- Toft, H. (2019). Leg som rytmisk assemblage. In Toft, H. and Knudsen K. E. (Eds.) *Leg & Litteratur*. Odense: Syddansk Universitetsforlag.
- Vygotsky, L. (1978). *Mind in Society. The Development of Higher Psychological Processes*. Harvard University Press.
- Yliriksi, S. and Buur, J. (2007). *Designing with videos. Focusing the user-centred design process*. Springer.