

# Learning and Identity Construction through Gamification in Visual Art Education - A Student Perspective

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## Abstract

This work in progress was presented on ECGBL in the planning stage (Ståhl & Kaihovirta, 2016) and shortly after the pilot study was conducted (Ståhl, Kaihovirta & Rimpilä, 2017) where we discussed our first impressions and noted that using game elements can enhance visual art education. In this paper, the focus is on a student perspective with transcriptions from the video material supporting our preliminary results.

This pilot study, inspired by Participatory Action Research, where the teacher in collaboration with the researchers designed a learning experience with digital games as an inspiration in visual arts education. The games represented a variety of visual expressions to choose from. During a total of six lessons, the students aged 12-13 worked alone or in pairs and transformed a scene from a digital game to paper cut art and back to a digital photograph. The students first arranged these layers in a certain order to achieve a sense of depth and then photographed the scene by using the camera function in their tablets, with their efforts resulting in a digital photograph. The data discussed in this paper consists of video recordings (370 minutes) focused on two pairs working on the task. However, two other groups chose to work close enough to the intended focus students for the cameras to document a large part of their processes as well. The games these students were inspired by were *Journey* (2012), *Shelter* (2013) and *Night in the Woods* (2017).

The preliminary results indicate that the students have the vocabulary to discuss and negotiate key concepts within visual art education spontaneously by themselves; such as disposition, content, colours and technique. Based on our data, we note that although the students are willing and have the vocabulary to engage in discussions on the visual aesthetics of the game, this type of discussions tend to be initiated by their teacher or one of the researchers. Therefore, we state that gamification in visual art education might offer the students tools to express and analyse the visual environments that are part of their everyday lives.

Keywords: gamification, visual art education, learning, identity construction, creativity

## Introduction

The Finnish National Core Curriculum for Basic Education, implemented in the autumn of 2016 (Finnish National Board of Education, 2014), stress the importance of gamification in education, yet not all teachers are necessarily aware of what gamification can entail and how it might enhance their students' learning. In the earlier National Core Curriculum for Basic Education (Finnish National Board of Education, 2004) the only mention of video games was in the subject specific goals for visual art education. As the only school subject addressing the importance of video games it is therefore a natural starting point for research on the topic. (Ståhl, Kaihovirta & Rimpilä, 2017.) Visual art education includes a broad spectrum of visual expression, yet in this study we focused on working with a combination of digital and analogue tools.

According to Nacke and Deterding (2016) the gamification research field has matured, studies on gamification have shifted focus from *whether* gamification works to *how* particular design elements work. For the future of gamification research Nacke and Deterding (2017, p. 452) express a need for a shift “from points/badges/leaderboards to other features and aspects of game design”. In this study, gamification is defined by using the visual elements of a game rather than implementing gameplay elements and the learning processes is discussed in relation to theories on innovation and identity construction.

### **Theoretical framework**

Most everyday digital practices such as gaming and texting require some kind of decision-making and being able to handle these activities demand a certain level of creativity. (Drotner, 2008). In most educational contexts, the latest technology is not in itself a necessity for a rewarding learning situation. However, games can be used as a tool for students to explore creativity (Shaffer, 2006) and be related to identity construction (Turkle, 1995; Gee, 2007) and co-construction.

Innovation is according to Darso (2011) to see possibilities and to be able to apply these possibilities in a way that gives value to the creation. Innovation is preferably done in collaboration and therefore Darso (2011, p. 13) defines “the competence of innovation as the ability to create innovation by effectively navigating collaboration within complex contexts”. As part of the competence of innovation, there is a need for evaluating earlier knowledge in order to create new knowledge. Yet at the same time there is a need for a desire to explore the unknown. When moving between the known and the unknown, the person competent within innovation needs to handle social relations with people from different backgrounds at same time that there is a need for conceptual knowledge.

### **Method and methodology**

The study was conducted in the spring of 2017 and the analysis is an ongoing process. This pilot study was inspired by Participatory Action Research where the teacher empowered by the two researchers designed a learning experience where digital games functioned as inspiration in visual arts education (Brindley, 2009). During a total of six lessons, the students aged 12-13 worked alone or in pairs and transformed a scene from a digital game to paper cut art. The students task was to arrange these layers, created with pen and paper, in a certain order to achieve a sense of depth and composition. The students photographed the scene by using the camera function in their tablets. The games the students were inspired by were Journey (2012), Shelter (2013) and Night in the Woods (2017). The adventure games were chosen in order for the students to get a variety of visual expressions to choose from: ranging from muted to accentuated colours and included two as well as three dimensional games.

The teacher was involved in several phases of the research; planning the study, executing the study with the students, being part of the data collection as well as evaluating outcomes. The design of the research analysis was informed by models for action research (Brindley, 2009) and after the study was conducted, the teacher was asked to reflect on her experience of the study in the form of written text. During the final session in the classroom the teacher instigated a discussion on what the students thought of the project.

### **Preliminary results**

Based on the student comments the project was perceived as something fun, new and a bit different from what they usually do in school. For an example, one student said that “it’s cool when teachers

want to do something different". However, gamification does not only offer a new and exciting experience; it offers tools for learning as well. The students were able to negotiate composition, choice of colour and technique. These are fundamental elements in visual art education and the students became aware of the different layers in the original image as well as in their own creation. In excerpt 1, the student (S2) does seem to have grasped the idea of that there are different layers of the image yet appears to be struggling to separate the different layers into two different pieces of paper.

S2: but really (.) this is the foreground this is the middleground this is the background ((pointing at respective layer on the iPad with a dry brush))

T1: yeah but you might need to simplify it and remove something

S2: yeah we might remove that three

T1: you could add it to the foreground

S2: we could

T1: you know if you cut if this is the foreground ((pointing at the screen)) is that how you are thinking

S1: yeah the black part is the foreground

T1: then it is possible to glue this to the black foreground and that way it is on the same paper like here ((pointing at the screen)) but still a little behind it

S2: and then this is the middleground and background next to the three ((pointing at the screen))

T1: yes

*Excerpt 1. Two female students, day one, 2017*

There are only a few instances where students link their work to the game in question or games in general. If they spontaneously discuss the visuals of the game, it remains on a superficial level. For an example, the students in excerpt 1 and 2 noted that they want others to be able to recognize the game they were inspired by and hoped that their usage of colour would reflect the game they chose. The recognisability of the game one was inspired by was something another student mentioned when evaluating the project: "everyone created nice images and one could immediately recognize what game it is from". The students were thereby conscious of the fact that they tried to recreate the mood of the original game yet had the possibility to be creative in the execution of the task.

T2: what game did you choose was it Night in the Woods

S1&S2: yes

T1: what is it about

S2: it is about a cat going somewhere

T1: all right

S1: but it is interesting that they have done it in so different ways

T1: yes that is what what

S2: fascinates one

T1: yes and you become aware now you will start looking at games and think how have they created this

S1&S2: yeah

*Excerpt 2. Two female students, day one, 2017*

The cases of students reflecting on the visual expression of games in discussion tend to be instigated by the teacher. In excerpt 2, following a discussion on the narrative of the game they chose to work with, the student (S1) expresses amazement over the fact that the visual elements of a game can be created in several ways. The teacher notes that the students might be more aware of the visuals in games after this and the students agree.

The digital screenshot resulted in a new digital image through the use of analogue tools. Although the students were not explicitly told not to edit the digital photograph, only one student did. During the evaluation the student mentioned that it was “super nice to first work ‘as usual’ and then fix it all with the iPad”, implying that he found the last part of the project the most motivating. A natural next step would be to include a step of digital image editing into the task.

## Discussion

By focusing on other game elements than points or badges (Nacke & Deterding, 2017), the preliminary results indicate that focusing on the visual elements of a game can be one way of broadening gamification research and that gamification can enhance visual art education. The students in this study are competent within the field of innovation; while exploring the unknown they are able to handle social relations (Darso, 2011). We state that co-constructing identity is part of the creative process and that this functions as a resource in visual art education. Since this study functioned as a pilot based on the action research design, we intend to further develop the concept based on the implications from the pilot and implement the updated project in the spring of 2019.

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