



Using a Serious Game as an Educational Tool about Obligation to Give Notice

A Game Collaboration with Tidaholm Municipality

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Abstract

The focus of this thesis was to use serious games as a tool to teach about obligation to give notice. Obligation to give notice means that certain professionals need to report to social services if a child is being harmed. This thesis studied if case-based storytelling could bring a relevant teaching experience, if storytelling could help participants learn about obligation to give notice and how instant and delayed feedback affect the learning. Participants played a story-based game with either instant or delayed feedback and answered three questionnaires about obligation to give notice. The study found that participants did find that the storytelling was useful for learning and gaining more knowledge about about obligation to give notice. For the feedback it was found that both types of feedback made the participants learn significantly more but there was no significant difference when comparing the feedbacks to each other.

Keywords: serious games, obligation to give notice, feedback in games, storytelling in games

Table of Contents

1 Introduction	1
2 Background	2
2.1 Serious Games About Child Protective Services.....	2
2.2 Obligation to Give Notice in Sweden.....	2
2.3 Serious Games in General.....	3
2.4 Storytelling in Serious Games.....	3
2.5 Feedback in Serious Games.....	4
3 Problem	6
3.1 Artefact.....	7
3.2 Method.....	8
3.3 Ethics in the Study.....	11
4 Overall Data Collected	12
4.1 Data Collected from the Instant Version.....	15
4.1.1 Storytelling in Instant Version.....	15
4.1.2 Feedback in the Instant Version.....	15
4.1.3 Knowledge Gained from the Instant Version.....	16
4.2 Data Collected from the Delayed Version.....	18
4.2.1 Storytelling in Delayed Version.....	18
4.2.1 Feedback in the Delayed Version.....	19
4.2.3 Knowledge Gained from the Delayed Version.....	20
4.3 Comparing Both Versions with Each Other.....	22
5 Analysis	25
6 Conclusions	27
6.1 Summary.....	27
6.2 Discussion.....	27
6.3 Future Work.....	28
References	29

1 Introduction

Serious games can help improve knowledge in a lot of subjects. Users can repeat the training scenario again and again until they understand what the game is trying to teach (Kenny and Gunter 2007, p. 12). One subject serious games have not focused very much on is child protection. It is of great importance that children are protected from harm to make sure they have a happy, safe childhood and can grow up to be stable adults. One way to prevent child abuse is through people who meet children in their daily job and know how to catch signs of abuse. The professionals who report will then make sure the information reaches the people who can further handle the child's situation. However, knowing when to act can be complicated and difficult to know. In this thesis, a digital training tool was created to help these professionals in possible future situations. The idea is that by being able to repeat a training scenario by using digital media, it could possibly make for a useful and powerful part of the ordinary education as well as being a safe way to experience difficult real life events.

This thesis takes its starting point in serious games and how they can be used in child protective services. It explains how obligation to give notice works in Sweden and how storytelling can be implemented to teach it. The results are expected to enhance the serious game experience and increase knowledge about feedback in serious games. The research will look at how and if using case-based instruction (Barnes, Christensen and Hansen 1994 cited in Andrews, Hull and Donahue 2009, p. 8) for storytelling can help users learn more about obligation to give notice as well how different types of feedback affect the learning process. The types of feedback this thesis looked at are *knowledge-of-correct-response* (Mason and Bruning 2001, p. 5-6) in the form of instant feedback and delayed feedback (Morrison et al. 1995). The motivation behind the thesis is to help professionals understand more about obligation to give notice and what actions to take in real life situations since serious games have the possibility to support cognitive processing and develop strategic expertise (Mitchell and Savill-Smith 2004, p. 19). To do this, three questionnaires and one game was sent out to participants. The game included information about how to proceed with the obligation to give notice while the questionnaires included questions about obligation to give notice. The surveys were sent out before playing the game, after playing the game and two weeks after playing the game to see if and how much the participants improved their knowledge.

2 Background

Beresford, Croft, Evans and Harding (2000, p. 148) say that it is important that every job that involves children agrees on how to approach the legal and policy mandates of the professional system in their line of work. However, Munro (2005, p. 374) mentions that a common failure is how information is shared between professionals. If professionals work in isolation from each other, a child in danger is at higher risk of harm (Wright 2002). A possible way to learn is through games as explained under section 2.1. A serious game needs to provide semiotics and context for both entertainment and education (Gunter, Kenny and Vick 2005, p. 11). This background chapter will cover various topics that are important to the thesis project such as games about child protective services, obligation to give notice, serious games in general, storytelling in games and feedback in games.

2.1 Serious Games About Child Protective Services

A couple of games that cover child protective services already exist. *Rosie 2* (University of Kent 2017) lets the player handle a situation about a family under suspicion that a child is being abused. The player determines what to do, what to look at and what to say to make the situation better. There is also time for reflection and discussion so the player can take in what happened during the game and what to improve in the future. The author (University of Kent 2017) states that the game “offers a safe new medium to explore and reflect upon child protection assessment.” This game was also used in a face tracking study (Reeves, Drew, Shemmings and Ferguson 2015). The study looked at how various people, some involved in social work and others not, emotionally felt when they met and handled digital child protective services situations.

Maritime City (Davies 2014) is a 3D game where the player interacts with a family and a scene. The participants base their actions and responses in the game on the gathered information. The game has been used for social work education and multi-professional training. The players work through the game and reflect on their work with the help of a professional trainer. Similar to *Rosie 2*, Davies (2014, p. 36) writes that “*Maritime City* uses gaming technology to create a training environment that is engaging, realistic and immersive but also entirely fictional and safe.”

Both of these game's have the view that the player should interact in a safe environment where the game is not judging the player's action. Reflection is done either by pauses inside the game such as in *Rosie 2* (University of Kent 2017) or with a real life trainer such as in *Maritime City* (Davies 2014, p. 36).

One important aspect of social services is how to meet the users, for example the parents, of the services such as knowing how to response to aggressive talk or how to act at the right time. In Sweden, a critical moment is when professionals are under obligation to report their suspicions. This law is called *orosanmälan* (obligation to give notice in English) and will be explained in greater detail under the next title.

2.2 Obligation to Give Notice in Sweden

Obligation to give notice in Sweden means that certain professionals who are working with or come in contact with children in their line of work are obligated to report any suspicions that of a child being harmed. Examples of line of work can be education, daycare and dentist. These professionals in Sweden can be charged for misconduct if it turns out that they did not report their suspicions (Socialstyrelsen 2017). There are rules and laws regarding safeguarding children in Sweden. According to Socialstyrelsen (2014) a child in danger involves all types of violence, negligence and exploitation. A child is considered in danger

even if the abuse was not intended, is cultural background related or lack of knowledge of the child's needs. Sweden follows UN's convention (Unicef) about children's rights. These rights includes that all children have rights to life, survival and development (from article 6) and all children should be protected from psychological and physical abuse by using appropriate means (from article 19).

In addition to UN, Sweden also has its own laws to make sure children are being treated well. Föräldrabalken (Sveriges Riksdag a) is a Swedish law regarding legal relationship between parent and child. In Föräldrabalken chapter 6 § 1 it says that children have a right to nursing care and security. Children should be treated with respect as human beings and not be exposed to physical violence or other insulting treatment. Socialtjänstlagen (Sveriges Riksdag b) is another Swedish law. In the Socialtjänstlagen chapter 5 § 1 it says that social services should work close with the homes to foster an all-round personality and social development. The law requires the social services to pay extra attention to development with children and adolescents who show signs of disadvantaged development.

2.3 Serious Games in General

To make an exercise effective it needs to portray people and situations as realistically as possible (Lexton's, Smith's Olufemi's and Poole 2005, p. 201). One possible way could be through serious games. There are several reasons to use serious games instead of traditional learning and instructions. A simulation of reality can be less costly, risky and sometimes the topic can not be dealt with in real life (Corti 2006, p. 2). Users can repeatedly play through games over and over again until they fully understand the content in the game (Kenny and Gunter 2007, p. 12). Games have a potential to support and aid cognitive processing as well as developing strategic expertise (Mitchell and Savill-Smith 2004, p. 19).

However, Westera, Nadolski, Hummel and Wopereis (2008, pp. 420-421) say the mental mode, profundity, reflection, concentration and perseverance, in higher education conflicts with the mental mode typically associated with gaming; amusement, fun and relaxation. Kenny and Gunter (2007, p. 9) also notice that hierarchical techniques used to create game level design can mislead designers to believe that these techniques applied to a serious game makes it automatically intrinsic and educational. Kenny and Gunter (2008, p. 9) continue to say that no matter how well the game has been developed from a game design viewpoint, it is a failure if the pedagogic intention does not work. The user base will not learn the intended content. As Salas and Burke (2002, p. 119) say, simulation is a useful tool for training skills but it needs to be used effectively. All these critiques are very important to keep in mind when creating serious games.

2.4 Storytelling in Serious Games

Shute et al. (2009, p. 317) mention that learning occurs naturally in a well-designed game. Andrews, Hull and Donahue (2009, p. 6) suggest that storytelling is used for instructions to educate about key principles and improve analytical ability in trainees and students. Lugmayr et al. (2016, p. 7) write that serious storytelling might be part of the notion that traditional stories encode and decode knowledge. The authors (2016, p. 17) state that “a prime example of serious storytelling is serious games”. Stories in digital games may give the players an immersive experience since interactive stories give context and clear goals for problem solving (Shute et al. 2009, p. 297). A very common type of storytelling is interactive storytelling where the main plot itself does not change but there are some small degrees of freedom (Lewowitz and Klug 2011, pp. 130-131) such as dialogue options.

One type of storytelling is case-based instruction (Barnes, Christensen and Hansen 1994 cited in Andrews, Hull and Donahue 2009, p. 8). Case-based instruction is defined as the problem and solution being fixed (Barnes, Christensen and Hansen 1994 cited in Andrews,

Hull and Donahue 2009, p. 8). According to the authors, the learner is an outside observer relative to specific situations in the past. The cases depicted have a specific conclusion and the learner can not change the outcomes (Andrews, Hull and Donahue 2009, p. 8). Text is an easy way to convey information that can be shown in-game, for example as mission briefings and conversations in the game (Molnar and Kostkova 2013, p. 299). Padilla-Zea, Gutiérrez, López-Arcos, Abad-Arranz and Paderewski (2013, p. 462) mean that a good story contains the feeling that the player has to protect the protagonist and stop enemies. This is called a parasocial phenomenon and creates motivation to take in the educational process in the serious game. Parasocial design ambition is to trigger parasocial effects (Bopp 2008, p. 4). According to Bopp (2008), parasocial effects are effects that occur in the context of an illusion of a direct social interaction such as liking or disliking a non-playable character in a game. The term parasocial design can be used for all aspects of game design that creates an illusion of direct social interactions between a player and a non-playable character (Bopp 2008, p. 16). Parasocial design and story rewards can be praise from non-playable characters (Bopp 2008, p. 21) to indicate that the player did something good. Pløhn, Louchart and Aalberg (2015) argue that not only does a story in a game need to be engaging and motivating but also current and timely as the player's world outside the game to create relevance for the player. By incorporating parasocial situations such as emotions and actions based on real social interactions in the story of a game, it will motivate the player to perform tasks in the game (Bopp 2008, p. 29).

However, certain problems may show up when adding storytelling in serious games due to time or money constrains. According to Lim et al. (2014, p. 25), there exists a lack of great game narrative examples in serious games. The authors state that there is a tension between the freedom of the player and constraints of the story. The authors continue to say that there is a gap between the conventions of digital games and non-theatrical drama that needs to be addressed. Plausibility (Dickey 2011, p. 458) in game narratives arises through interplay between characters, events and environment. The authors continue to state that context and setting in the narrative back story determine what is plausible in the context of the game as well as how to overcome and solve problems. In other words, breaking the rules of the context and setting creates ludonarrative dissonance. Ludonarrative dissonance occurs when the rules and objectives in the gameplay clashes or contradict with the narrative aspects of the game (Tavinor 2017, p. 31). An example of this is when the player character in a game is sad for killing someone in a cutscene but in the gameplay is able to shot anyone and anything without the narrative reflecting on it.

2.5 Feedback in Serious Games

Feedback refers to the type and amount of information given after a user's input (Johnson, Bailey and Buskirk 2017, p. 125). The authors continue to say that feedback varies between providing a performance score to an explanation of the correct answer. Shute et al. (2009, p. 299) write that the most helpful feedback is the one that contributes with specific comments about errors and improvements. Mason and Bruning (2001, p. 3) mention that a major advantage of serious games is the ability to give direct feedback on the users' responses. Mason and Bruning (2001) follow this up by writing that this helps the users identify errors and misconceptions as well as motivate more learning. Nkhoma et al. (2014, p. 50) write that one cause that makes students cognitively overwhelmed is the doubt whether their task performance was good or not. A clear indication in games when the delivery is not going well is through failure in the game. The setback punishment (Juul 2009, p. 2) can be to replay a part of the game or losing abilities. Charsky (2010, p. 189) writes that failure can be a valuable teaching experience since it can providing realistic consequences. Turning each failure into learning can also motivate the user to try again and again until until they reach all goals (Charsky 2010, p. 189). This is backed up Goodman, Wood and Hendrickx (2004, p. 249) that while specific feedback that guides the users and decreases errors may seem beneficial, the users will not understand what to do when things go wrong. Nkhoma et al.

(2014) study showed positive impacts of real time continuous feedback during the gameplay. However, Davis et al. (2005) argue that rehearsal might be harmful to the real life performance if the existing task strategy is incorrect.

There exist many different types of feedback but this background will bring up two types. The first one is *knowledge-of-correct-response* (Mason and Bruning 2001, p. 5-6) where the game provides individual item verification and also tells the learners the correct answer. The second one is *delayed feedback* (Morrison et al. 1995) where the feedback appears at the end of the gaming session. Bellotti et al. (2013, p. 1) mention that performance assessment is crucial since serious games are developed to support knowledge and/or skill gain. Bellotti et al. continue to say that the systems of serious games must evaluate the learning process because the rewards and advancement inside the games are bound to it.

3 Problem

In Sweden, one important way to find children who are being abused is by the law of obligation to give notice. Professionals who meet children at their jobs report if they find signs of something they believe is putting the child at risk. During the writing of this thesis, no serious game about obligation to give notice was found. This may point towards a knowledge gap about the subject to fill in. The rules and laws mentioned in the title *Obligation to Give Notice in Sweden* are things the artefact created for this thesis and the municipality of Tidaholm is taking in account, as it needs to make sure to be of actual, real use for the people playing through the game. If the artefact strays too far from what the process of obligation to give notice actually involves, it cannot be applied to practice.

One way to learn about obligation to give notice could be through storytelling in serious games. It is possible that through case-based storytelling people can learn to easier notice harmful signs. The aim of this thesis is to see if that type of storytelling in a game can help players get a clearer understanding about obligation to give notice. Lim et al. (2014, p. 25) mention a conflict between freedom and storytelling in games. However, as there is a very limited 'path' professionals take to make an obligation to give notice this could rather enhance the experience. The main question is as follows:

How can case-based storytelling bring a relevant teaching experience in a serious game context?

It is further divided into two sub-questions.

- *Can storytelling in serious games help users improve their knowledge about obligation to give notice?*
- *How does instant and delayed feedback affect learning in a serious game?*

In the main question, 'relevant' refers to if the participants are learning anything from game session. To avoid making it a yes or no question, the method will use two different versions of the game and measure which version is the most effective to teach with.

The first sub-question will measure if the participants improve their knowledge about obligation to give notice by looking at test results. The second sub-question is to see if users prefer instant or delayed feedback. Instant feedback is referring to *knowledge-of-correct-response* (Mason and Bruning 2001, p. 5-6). Delayed feedback is referring back to *delayed feedback* by Morrison et al. (1995). One of the versions of the game informs the player of the correct answer immediately after a choice has been made, thus the use of the *instant feedback* term, and the other version tells the player later, this is the use of *delayed feedback*.

The reason to look at storytelling is to see if it can be useful in the serious game area. The reason to look at the different type of feedback is to see how one can improve the feedback given to players of a serious game and the strength and weakness of both of them. A big argument for this study is the sheer lack of serious games about obligation to give notice. This thesis can at least take the first step to fill that knowledge gap. Overall, all three questions will be used to bring more knowledge to the serious games area.

3.1 Artefact

Together with Tidaholm's municipality, a digital education tool was created and used in this thesis. The artefact is a game created in Twine (2009). Twine is an interactive text software. Twine can create text passages that are connecting other text passages through links. With Twine, it is possible to create linear stories and branching stories.

The reason Twine was used in this project was that it is a familiar tool to the author of this text as well as free to use for anybody. It was easy to implement case-based storytelling using this type of software. Text can be useful to have in serious games, though a danger could be that too much text creates a wall of text for the learner to slug through. There is also a possibility that people might learn more from spoken words than text (Mayer 2009 referenced in Johnson, Bailey and Buskirk 2017, p. 130) but due to resource limitations and time the artefact only used text. The artefact was written with Swedish as it was requested by Tidaholm to use that language. The game also strived to include the same information that the written material that Tidaholm uses to teach about obligation to give notice. The structure of the instant version of the game can be seen in figure 1 and the structure of the delayed version in figure 2. Players make choices in the game by clicking on links and advancing in the story of the game. Pictures from instant and delayed version are in appendix E, figure A to D.

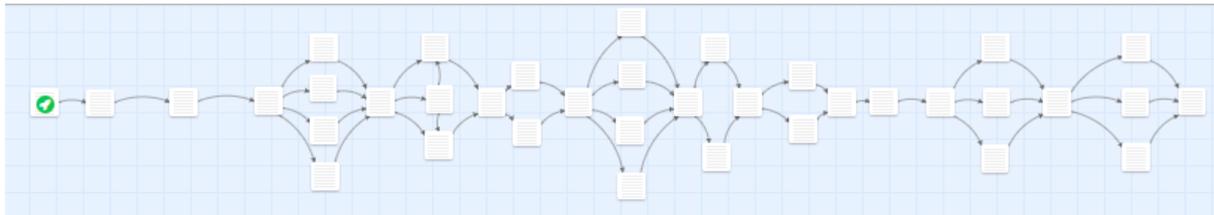


Figure 1. Picture of the structure of the instant version.

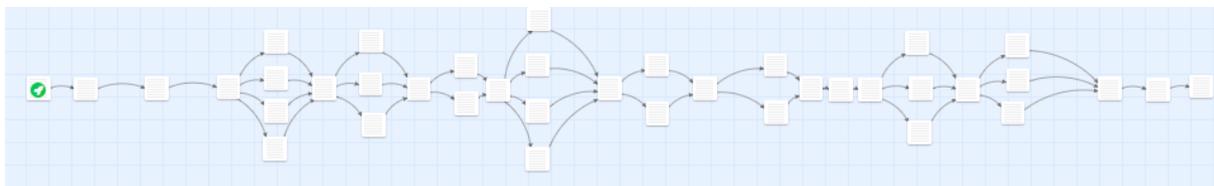


Figure 2 Picture of the structure of the delayed version.

Inspiration in for the artefact was the two games mentioned earlier in the text; *Rosie 2* (University of Kent 2017) and *Maritime City* (Davies 2014). Both of the games focused on actions and choices you make in the various situations that appear in the game. The artefact also tried to be a safe experience and not be condemning of the players choices. Instead the game should explain how the player should approach the problem if they did something incorrect and point of when the player did something right. However, creating a 3D environment similar to *Maritime City* (Davies 2014) uses would take too much time to complete and likely would suffer in quality if it aimed to be completed within this thesis' deadline.

To test how useful the game would be for teaching about obligation to notice, there are two versions of the game. The first version has failure or success state at the end of the game, counting what the participant did wrong or correct. The second version has a failure or success state after every choice the player does. Both versions have different scenarios depending what the player chooses. For example if the player says that an obligation to give notice cannot be anonymous the aftermath of the choice will be different than if the player says that the reporting can be anonymous. However the narrative structure is the same in both versions, for example after the player has faced the question of anonymity the next scenario will be if the player should have a meeting with the child or not. Neither of the two

versions have multiple endings and instead are using interactive storytelling to follow a predetermined path with some minor interactivity. The delayed version feedback begins with telling the participants what they did correctly and then what they can improve.

The game start with an introduction that this game is about obligation to give notice and a collaboration between Tidaholm. The game then shows different scenarios where the player needs to choose the correct answer. At the end of the game, the player is linked to either the test two for instant and delayed depending which version the participant played.

The content in the game is matched as closely as possible to the tests. The content in the game was discussed and chosen together with the municipality of Tidahom. It was mainly questions that most people have when dealing with obligation to give notice. Situations that are brought up in the game are the following:

- What you can write to social services when you believe a child is being harmed.
- When you should report your suspicion.
- If you should wait for more evidence.
- How you report.
- If you can be anonymous.
- If you should tell the parents.
- If you should tell the child.
- How you should ask the questions to the child.
- If you should trust your own view over the child's.
- What type of support Tidaholm has.
- If you can be at the meeting together between the social services and the family.
- What you will know after you have reported to social services.

Both versions of the game have the same information being taught to the participants though some text is different due to the differences in feedback. The game was written in first person view so that the player got a feeling that they were the one who got to deal with the situation.

The game went through some changes throughout the development. Originally the idea was to have the game's story take place in a school environment. However when talking to the client, they wanted the game to be more applicable to all professionals who are under obligation to report to social services if they believe a child is being harmed. Instead the game made the environment and characters' profession more ambiguous. Another change was the game's starting scenario and question involving a former worker in the game who got fired because they did not report to social services. It was deemed too discouraging to the target group to involve that topic. The game aimed after all to encourage players to learn more about obligation to give notice.

3.2 Method

To see if case-based storytelling about obligation to give notice works, a test before playing a version of the game and two tests after playing the game were made. This was to see if the test group improves in catching signs and knowing how the process of the law works as seen in figure 3. Participants themselves do not learn how much they scored. That is to avoid that the participants learn from the questionnaires themselves, rather than from the game. Each version was tested with eleven people. The testing was done online. The max score a participant could score is 29 points.

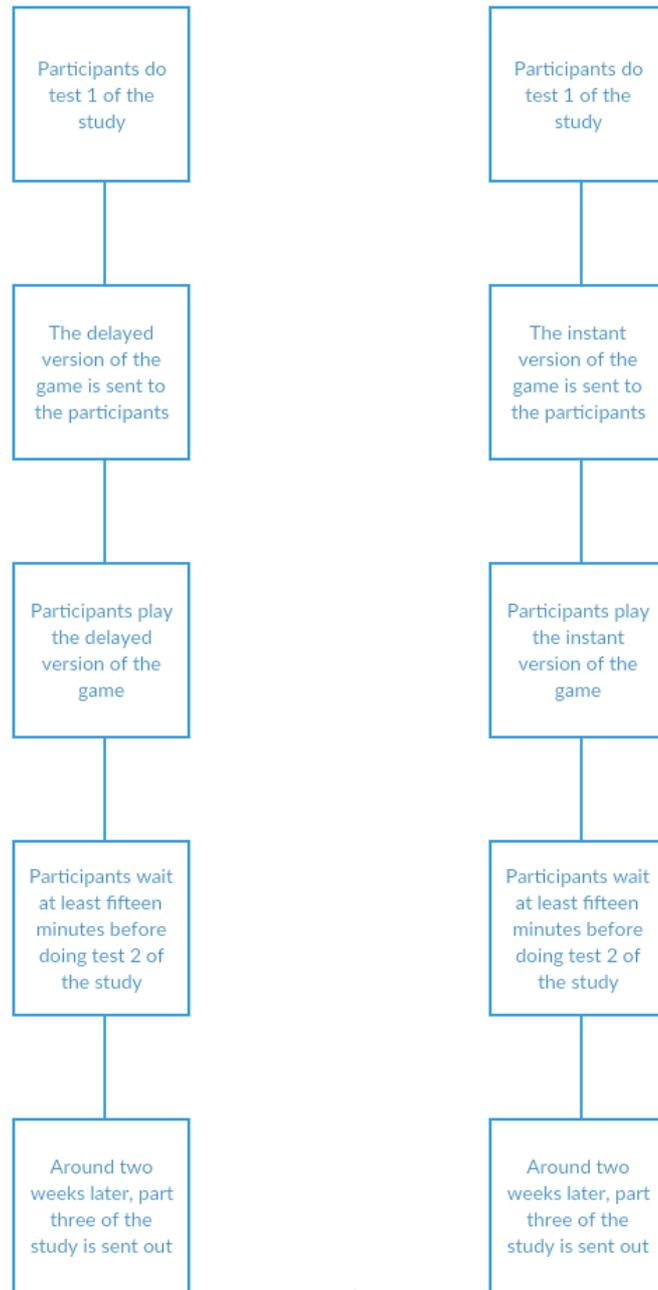


Figure 3 Overview of the study structure

There are two important aspects of these two tests. The first aspect was the time between the tests. First the participant was part of a test about obligation to give notice as well as mentioning if they had any previous knowledge about the subject. After that they played through one version of the game. Then the participants waited at least fifteen minutes before doing the next part. When the break was over, they did a test again about obligation to give notice and what they thought about the storytelling in this serious game. The last part of the test had questions about obligation to give notice, e-mailed to participants 2 weeks after their participation. This was done to see if the participants truly learned anything or if they forgot the knowledge possibly gained in the games. Every question about the obligation to give notice appeared repeatedly in all three questionnaires as seen in appendix A, B, C and D.

To check for a statistically significant difference in the learning effect in this study, t-testing was used. T-testing is used to check if the means of two groups are statistically different from each other. The study used unpaired t-test between the groups, and paired sampled t-test, within the group itself, to measure the results. The t-test's null hypothesis is that there are no statistically significant differences between the samples. With t-testing, the mean between the samples is subtracted, with the formula shown in figure 4 below. If the p-value is lower than 0.05 the null hypothesis is rejected. The t-testing and calculation was done with Google Sheets (Google 2006). To get an overview of the general result of the studies, a box plot chart was also used in this thesis. That was to see how the results varied within the group of each version of the game.

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}}}$$

Figure 4 Formula for t-testing.

For the measurement of storytelling and feedback, there was a scale question, one to five, where the participants rated how much they liked the storytelling and feedback and if it had helped them learn, see appendix B and C. The rating will be shown in histograms throughout sections in this chapter. In addition, there was also comment section where the participants told their opinion on the storytelling and feedback, see appendix B and C.

The participants in the test are people with either no background training in obligation, people studying work involving children or people working with children. In the end there were seven participants in total who had worked or studied for work involving children for the instant version and four participants in the delayed version. It will presumably be easier to measure improvements with people with no previous training about the topic rather than to test on participants that have already been trained. Another reason is also that it was easier to find people with no special requirements instead of trying to find people with a background of obligation to give notice. However, it will also be useful to include people with relevant training to see how applicable they find the serious game to be. The chosen participants were of convenience sampling, friends and family as well as those people reaching out for other people due to a lack of other participants.

Since the testing was conducted over the Internet there is no telling if a participant cheats by looking up the right answers. However, the prospect of seeing if any improvement was kept after some time has gone by was of enough value to keep the testing online as well as it might be easier to find people via the internet. Another weakness of this study is how much knowledge the participants already have about the subject since that could possible change the results. However, since every participant were part of three tests each, it hopefully will be enough tests to study if there was any improvement. The first test will also look at how many of the people have knowledge in about obligation to give notice as well as how much they know about the topic, see appendix A. As it turned out later in the test, only one participant felt comfortable saying they know a lot about obligation to give notice.

Another weakness of the method is the possibility that participants will drop out and not finish every single step of the study. However, to mitigate that effect, the study is going to reach out to as many as possible participants.

3.3 Ethics in the Study

This study followed Vetenskapsrådet's (2009) guidelines for ethical science studies. Every participant was introduced to what the study would be used for (Vetenskapsrådet 2009, p. 7). All participants were allowed to cancel the test session without any explanation (Vetenskapsrådet 2009, p. 7). Participants were anonymous. The only thing that was collected about the participants were their e-mails to keep track which data belong to what participant in all three tests. The e-mails are not shown in this thesis. Nothing else was collected about the participants, such as names, gender or age that connect the data to the participants (Vetenskapsrådet 2009, p. 12). By participating in the study, participants accepted that they were willing to be part of the study (Vetenskapsrådet 2009, p. 9). Data collected in this study was only used for the thesis and possible future development of the artefact (Vetenskapsrådet 2009, p. 14). In addition, the collected data will not be used for commercial works or other non-scientific works.

4 Overall Data Collected

In total there were 22 participants, eleven for each version as seen in table 1 and table 2 below. No participant scored the max amount of points they could get, 29 points. In the instant version five participants had worked with children but had not received any information about obligation to give notice and two had worked with children and had received information about obligation to give notice. In the delayed version of the game two participants had worked with children but not received any information about obligation to give notice and two had both worked with children and received information about obligation to give notice.

Table 1: Participants' score throughout all tests in instant version

Instant version: Points before playing the game	Instant version: Points after playing the game	Instant version: Points after 2~ week post-test
PA: 11	PA: 21	PA: 19
PB: 6	PB: 17	PB: 15
PC: 8	PC: 22	PC: 16
PD: 7	PD: 12	PD: 10
PE: 4	PE: 22	PE: 16
PF: 6	PF: 16	PF: 14
PG: 7	PG: 19	PG: 15
PH: 8	PH: 15	PH: 12
PI: 5	PI: 6	PI: 6
PJ: 8	PJ: 20	PJ: 20
PK: 6	PK: 23	PL: 21
Purple = Worked with children but did not received any information about otgn.	Blue = Worked with children and received information about otgn.	

Table 2: Participants' score throughout all tests in delayed version

Delayed version: Points before playing the game	Delayed version: Points after playing the game	Delayed version: Points after 2~ week post-test
P1: 9	P1: 16	P1: 14
P2: 7	P2: 18	P2: 18
P3: 6	P3: 12	P3: 14
P4: 5	P4: 15	P4: 15
P5: 11	P5: 21	P5: 17
P6: 6	P6: 12	P6: 12
P7: 11	P7: 16	P7: 15
P8: 9	P8: 15	P8: 10
P9: 16	P9: 21	P9: 15
P10: 5	P10: 17	P10: 17
P11: 7	P11: 18	P11: 10
Purple = Worked with children but did not received any information about otgn.	Blue = Worked with children and received information about otgn.	

Interestingly, there was a question in test one asking participants to rate their knowledge about obligation to give notice. Majority in both version did not rate their knowledge about obligation to give notice very high as seen in the figure 5 below.

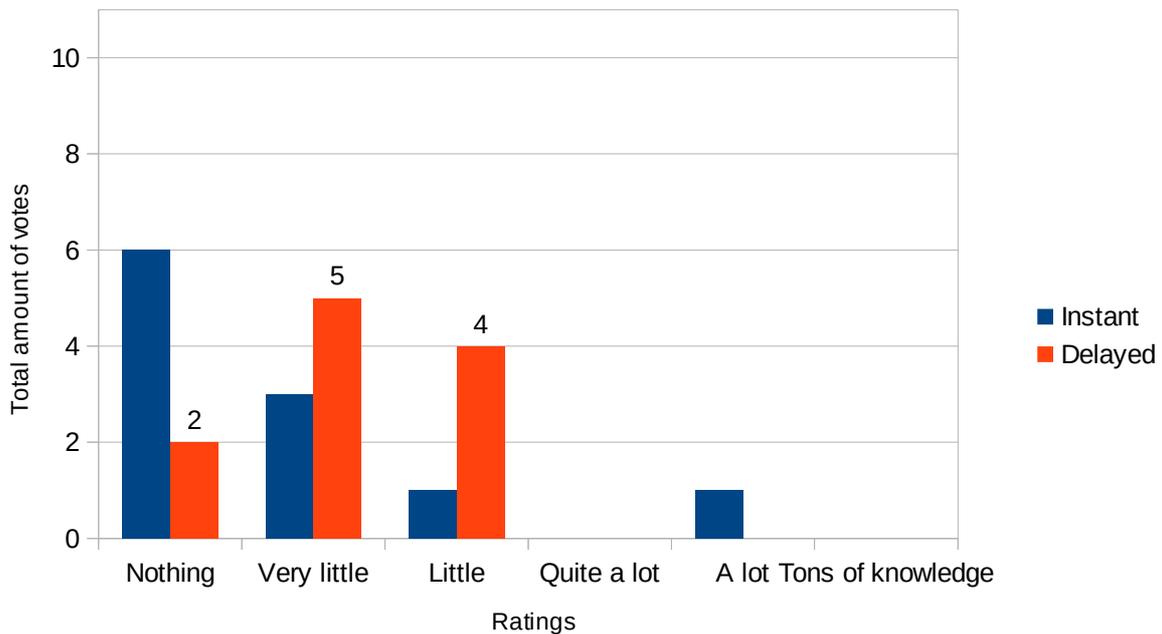


Figure 5. Histogram over the knowledge participants had before playing one version of the game.

Some problems that occurred during the testing was people not understanding how to play the game, either by trying to use it on mobile or not having a correct web browser that could run the game. Fourteen participants were excluded from the study since they only answered part one and/or part two of the questionnaire and the collected data from them could not be compared with anything else. There was also a mistake that for a while, part three of the study did not include an option to let participants write down their e-mail. This unfortunately led to the data from participants not being included in the final study since their earlier results could not be connected with their data from part three.

Another problem that occurred was people answering more than two weeks later. However, while it is possible that this affects the results in part three, cutting the data would leave too few participants to make a meaningful analysis.

When checking if participants had learned anything, a comparison between test number two and one was made. This was to see if there was a visible teaching effect of the game. When checking if they had forgotten anything a comparison between test number three and test number two was done. This was to see how large the knowledge loss was and if the teaching effects of the game simply was not impactful enough to be remembered. When checking if participants remember anything from the game, a comparison between test number three and test number one was done. This was to see to see if the knowledge participants had left from test number three was more than when they had after test one. This will be brought up in sections 4.1.3 and 4.2.3.

4.1 Data Collected from the Instant Version

4.1.1 Storytelling in Instant Version

Most of the participants liked storytelling in games to teach about obligation to give notice. When asked what they liked about using storytelling in the game as a method to teach about obligation to give notice every participant except one rated it either four or five as seen in figure 6. When participants were asked to comment if they believed the storytelling in the game taught them more about obligation to give notice, everyone except one was positive it helped them learn more. The participants who were positive to the storytelling believed the storytelling made it easier to understand the information by being active and choosing decisions in the game. Other positive responses were that the game made them attentive to what was happening, it felt more natural and it was easier to absorb the information than reading a booklet or a book. The participant who was negative to storytelling responded that they personally would have preferred paper form since they felt it was less serious to receive this type of information through a game. Another participant also felt that the storytelling taught something and that further development with the game would be helpful. To see all participants comments for the storytelling, look at appendix F under the section for the instant version.

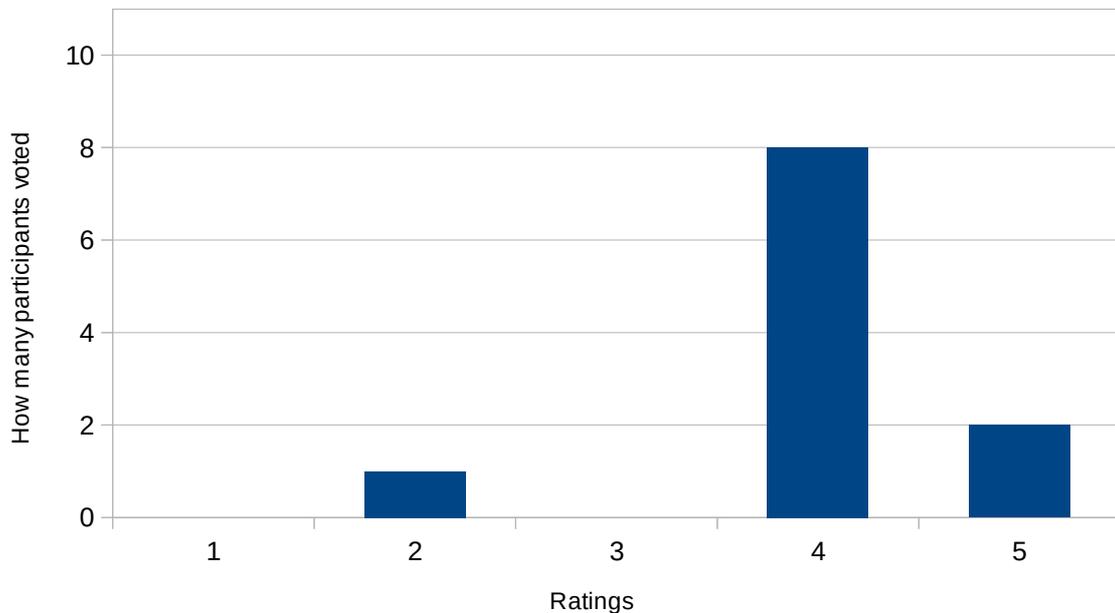


Figure 6 Histogram. Participants rating to the question ‘What did you think about using storytelling in games to teach about obligation to give notice?’ (1, I did not like it all, to 5, I liked it a lot) shown in a histogram.

4.1.2 Feedback in the Instant Version

When asked if the participants believed the instant version helped them teach about obligation to give notice, see appendix B, there were some repeated statements. Since participants did not know much before playing the game about obligation to give notice, many felt the game had a positive impact. They liked that the game gave them choices and kept them interested. Some mentioned that they liked that the game gave them context and one also mentioned that they liked how the game told them at once if the choice was right or wrong. When asked what could be improved in the instant version the participants had some suggestions. Some felt that it sometimes was easy to figure out the right answers since some

of them felt more 'goodhearted' than others. Pictures, names for the characters and the possibility to hear the conversations of the games would be preferable. One participant felt like it could be too much information at the same time. Another wanted to see long term effects such as the parents calling up the player character.

For the question if the participants liked that the game told them if they had done something wrong immediately the majority of the participants gave it the highest ranking, five as seen in figure 7. When asked to respond what they liked or disliked with the instant feedback, they said the following: Many liked that they got instant feedback. It was good to avoid confusion what was the correct or incorrect actions in the game. One participant wanted clearer feedback when they answered correctly or not. To see all participants comments for the feedback, look at appendix F under the section for the instant version.

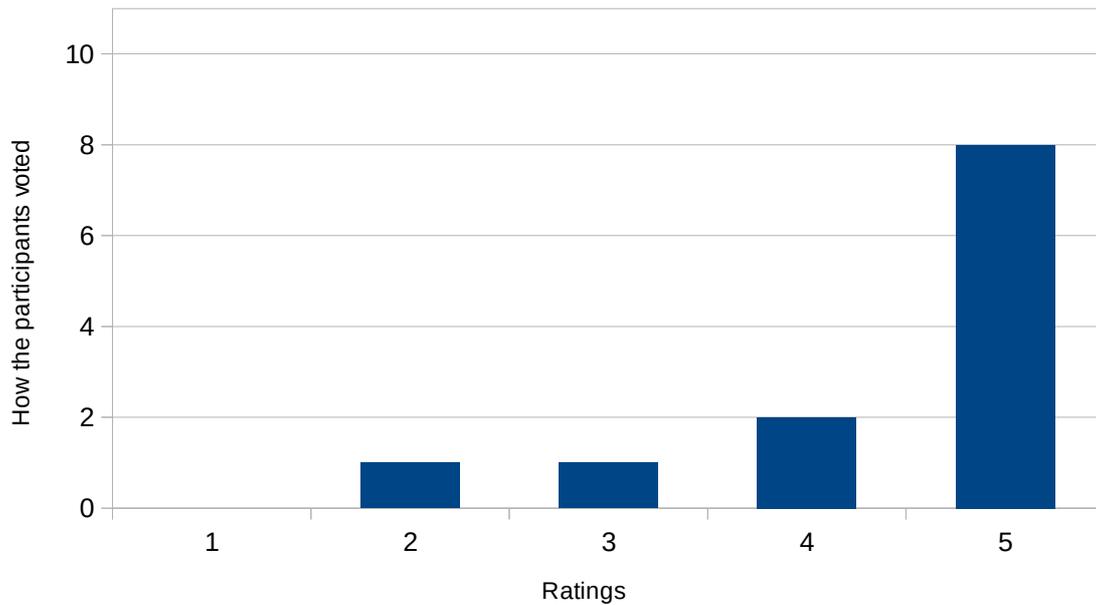


Figure 7 Histogram. Participants rating to the question 'What did you think about the game telling you if you had done something right or wrong immediately?' (1, I did not like it all, to 5, I liked it a lot)

4.1.3 Knowledge Gained from the Instant Version

All participants improved their knowledge after playing the game, as seen in table 3. Out of all the participants, only one kept their improvement from the second test to the third test.

Table 3: All data from participants playing the instant version. Note that the possible maximum score was 29 points.

Instant version – results before playing the game	Instant version- results after playing the game and waiting at least fifteen minutes	Instant version- results after playing the game and waiting around two weeks
11	21	19
6	17	15
8	22	16
7	12	10
4	22	16
6	16	14
7	19	15
8	15	12
5	6	6
8	20	20
6	23	21

To get a better overview how the data was divided, a box plot was created, as seen in figure 8. A notable result in the chart is the very low minimum result in part 2 and part 3, due to a participant that scored six points on each. Why it is such an extreme difference to other participants could be the cause by either the participant not learning anything or that they simply did not care when playing through the game and doing the questionnaires.

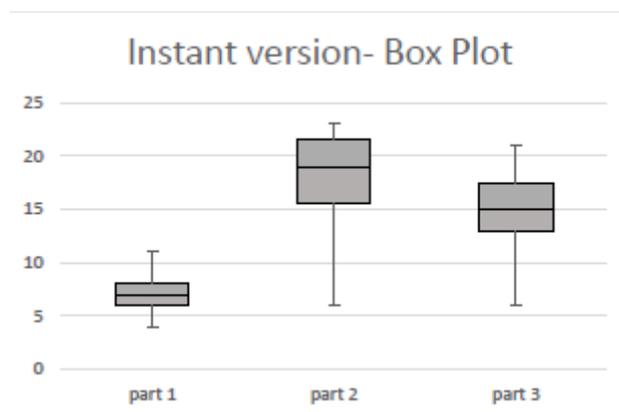


Figure 8 Box plot chart of the entire instant results

According to the paired t-test there was a significant difference between the samples, as seen in table 4 and compared against the p-value of 0.05. Note that the participants scored less during the two week post test of the test than doing the test after at least fifteen minutes. However, in general participants improved their score after a short break and a long break.

Table 4 Paired t-testing with the instant version

Paired, two-tailed t-test (p1 and p2):	0,00003391394286
Paired, two-tailed t-test (p2 and p3):	0,001460851209
Paired, two-tailed t-test (p1 and p3):	0,00007855863381

4.2 Data Collected from the Delayed Version

4.2.1 Storytelling in Delayed Version

When asked how much participants liked storytelling in the game a majority of the participants ranked it four as seen in figure 9. Participants were more divided on this version than the instant version. When the participants were asked to comment if they believed the storytelling in the game taught them more about obligation to give notice, all participants except three were positive that the storytelling helped them to learn. One responded that they believed that there exists potential to teach through storytelling in-game but they believed in their case they could just read a regular text. Another responded that they believed the storytelling helped to a certain degree. One participant wrote that they believed the storytelling did not influence the knowledge and it felt like they were given formal questions and that the questions were not connected to each other. Many of the positive comments simple answered 'yes' but one participant commented that they though it was more engaging than reading a text. Another participant also taught them to pay attention to the topic. In comparison to the instant version, the participants were more split in views for this version than the other. To see all participants comments for the feedback, look at appendix F under the section for the delayed version.

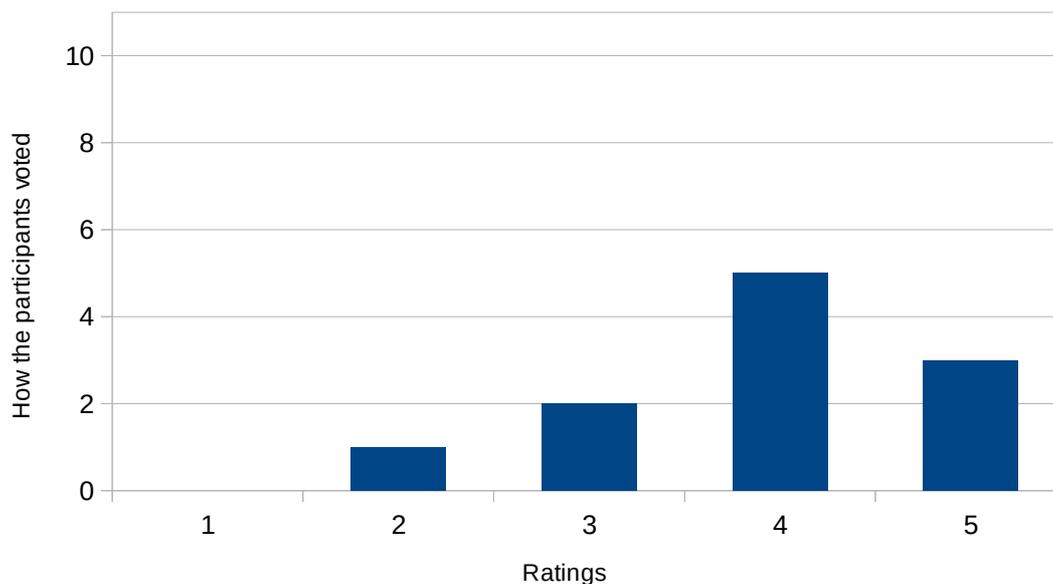


Figure 9 Histogram. Participants rating to the question ‘What did you think about using storytelling in games to teach about obligation to give notice?’ (1, I did not like it all, to 5, I liked it a lot)

4.2.1 Feedback in the Delayed Version

When asked to rank their liking of the use of delayed feedback participants mostly ranked it four as seen in figure 10.

When asking the participants if they believed the game taught them more about obligation to give notice many of the participants were positive it did. The game brought up topics the participants were not aware of. One participant mention the end feedback as a reason why the game taught about obligation to give notice.

When asked what the participants believed could be improve in the delayed version to make it easier to teach there were some suggestions. There could be improvement with the story. Participants wanted a more engaging, emotional, better and longer story. Two participants wrote they would have liked having feedback after every choice than at the end. Two participants also thought it would be good if they had read ordinary text before playing the game to understand more about obligation to give notice.

When asked what they liked about the delayed feedback the participants said the following. Participants liked that they got feedback and it made them learn more. One participant also said it helped them reflect over what was right or wrong. One participants commented that they thought it was too much information at the same time and it made it harder to remember if you had chosen wrong or not. One participants felt having hints if you had chosen wrong would be helpful. To see all participants comments for the feedback, look at appendix F under the section for the delayed version.

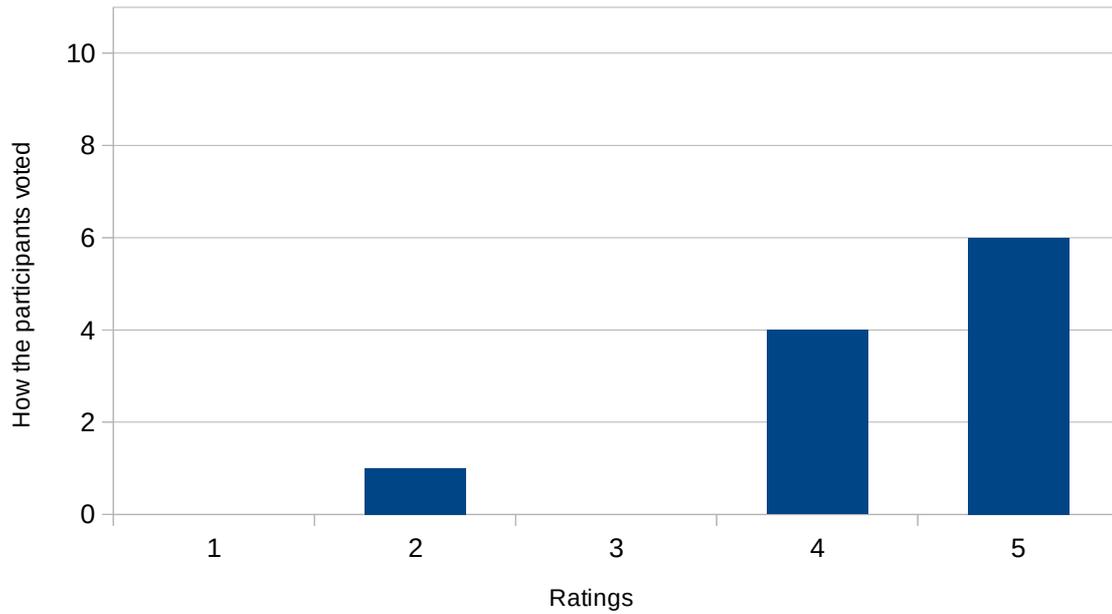


Figure 10 Histogram. Participants rating to the question ‘What did you think about the game telling you if you had done something right or wrong at the end of the game?’ (1, I did not like it all, to 5, I liked it a lot)

4.2.3 Knowledge Gained from the Delayed Version

For this experiment, as with the instant version, all participants also improved their knowledge after playing the game, except one participant who scored lower after the two weeks break as seen in table 5. The maximum score that each participant could score was 29 points for each test. No participant scored that high. Interestingly enough, three participants scored the same points between part two and part three, one participant even scored their highest points in part three and one participant scoring their lowest in test 3.

Table 5 All data from participants playing the delayed version.

Delayed version – results before playing the game	Delayed version- results after playing the game and waiting at least fifteen minutes	Delayed version- results after playing the game and waiting around two weeks
9	16	14
7	18	18
6	12	14
5	15	15
11	21	17
6	12	12
11	16	15
9	15	10
16	21	15
5	17	17
7	18	10

While not scoring as high as the instant version, the participants were less divided in the score results as seen in figure 11 at the part two and part three.

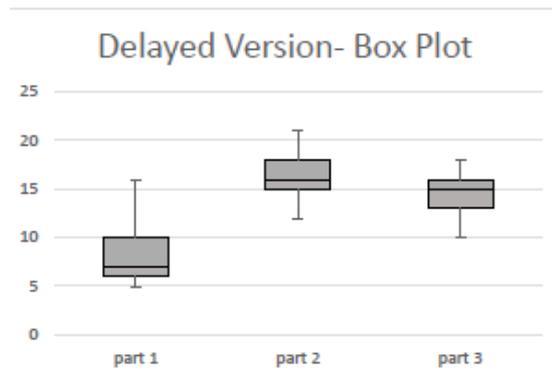


Figure 11 Box plot chart of the entire instant results

Similar to the instant version, the t-testing show that there were statistically significant differences, as seen in table 6 and compared to the p-value of 0.05. All values were lower than the p-value. With a few exceptions, most participants performed better in the second test than in the third test.

Table 6 Paired t-testing with delayed version

Paired, two-tailed t-test (p1 and 2):	0,000001682611387
Paired, two-tailed t-test (p2 and p3):	0,04307667757
Paired, two-tailed t-test (p1 and p3):	0,0007586517374

4.3 Comparing Both Versions with Each Other

When comparing and testing each version with t-testing, there were no statistically significant differences as seen in table 7 when doing unpaired t-testing. All p-values were over 0.05 as seen in the left column in table 7. With the previous result showing differences within the group, comparing the groups with each other showed that there were no big differences. The two versions were equally good at teaching about obligation to give notice.

Table 7 Unpaired t-testing between the groups. Note that homoscedastic means that all random variables have the same finite variance.

Unpaired, homoscedastic (p1 & p1)	0,2204438789
Unpaired, homoscedastic (p2 & p2)	0,549652725
Unpaired, homoscedastic (p3 & p3)	0,6873287617

All in all, every participant improved or kept their results after playing one version of the game except one participant from the delayed version who become worse after the two week post test as seen in table 8. Once again, the maximum score was 29 points. The generally better performance in the post test was expected since the participants had taken in information about obligation to give notice.

Table 8 Results from both versions before playing the game and the two week post test.

Instant version – results before playing the game	Delayed version – results before playing the game	Instant version- results after playing the game and waiting around two weeks	Delayed version- results after playing the game and waiting around two weeks
11	9	19	14
6	7	15	18
8	6	16	14
7	5	10	15
4	11	16	17
6	6	14	12
7	11	15	15
8	9	12	10
5	16	6	15
8	5	20	17
6	7	21	10

To see how much participants remember from the first test to the second test, table 9 also shows the difference between test number three and test number one.

Table 9 The difference between test number three and test number one

Instant version – difference between the third test and the first test	Delayed version – difference between the third test and the first test
8	5
9	11
8	8
3	10
12	6
8	6
8	4
4	1
1	-1
12	12
15	3

When checking the median, using the results from table 9, it turned out that the instant version had a slightly higher result. Instant version had a median of 8 points in difference while the delayed had a median of 6 points.

5 Analysis

How can case-based storytelling bring a relevant teaching experience in a serious game context?

In general, it helped participants to add context to the situation and problem they had to solve. The participants themselves were mostly positive to including storytelling in both versions. The negative feedback was that some participants would have liked the questions and the game to be better combined and answers not being so black and white. It is also hard to say how much the participants improved by doing the tests themselves three times, perhaps by reflecting on each question more. Yet, almost every participant had a drop in their result after two weeks so it is a possibility that it does not affect, especially since the tests themselves never let the participants know how many points they scored.

It is also notable that participants who played the delayed version were more split in views if the storytelling affected the learning than the instant version. It could be due to differences in how the story and feedback is intertwined in both versions. Participants in the delayed version also had more complains about the story than in the instant version.

Can storytelling in serious games help users improve their knowledge about obligation to give notice?

The storytelling in both versions helped all participants improve. Participants from both versions improved their knowledge significantly from test number one to test number two as well from test number one to test number three. However, since there was no other method tested, for example a questionnaire that told the participants after they were done with the study, it is hard to tell how much storytelling affects serious games. It is also possible that it was the answers themselves that helped participants more than the game. Though, in comparison between the instant version, that had characters telling the answers, and the delayed version, where at the end was just told by the game, the instant version had the higher result. An other method that would not have involved games, such as traditional learning methods to increase knowledge, would have been interesting to compare with.

Finally, since obligation to give notice is something that is done in real life, and in situations that might be difficult to replicate in a game, further research is needed to prove how useful storytelling in serious games are to apply in the real life context.

How does instant and delayed feedback affect learning in a serious game?

The instant version had the highest result when measuring median. One reason instant feedback could be more effective than the delayed feedback is that it is less overwhelming to get some feedback over time than all feedback all at once. However, the t-testing concludes that there was a statistically significant knowledge gain with both versions but no difference between them when comparing the versions against each other. This shows that both versions increased the participants' knowledge, though there was a slightly higher result between test three and test one for the instant version than the delayed version.

One surprising observation was the fact that a few of the participants in the delayed version improved after two weeks in comparison to their results after playing the game and waiting at least fifteen minutes. What this can depend on is uncertain, perhaps just luck, the delayed version gave people an easier time to reflect in the game or people in the delayed version were quicker to answer than participants in instant version.

Participants who were playing the delayed version also seemed to be more inclined to want feedback at every choice than the participants who were playing the instant version wanted feedback at the end of the game.

It is also worth noting the participant who felt that it was unserious to learn about obligation to give notice through a game and the other participants who were less positive about the game. It is possible that the idea of using a game, media that is primarily used for entertainment, makes people uncomfortable to be used in a serious context and thus prefer other types of learning processes.

6 Conclusions

6.1 Summary

This thesis concludes that case-based storytelling can help create a relevant teaching experience since it helps contextualize the topic. Furthermore, storytelling helps players improve their knowledge about obligation to give notice as seen in the three tests. Finally, instant and delayed feedback affected the players by both being good at creating knowledge about the topic for the players. While there were no statistically significant differences between the two versions of the game, the instant version had a slightly higher median result than the delayed version. The delayed version on the other side had more people being better or keeping their result from test two to test three.

6.2 Discussion

One thing in particular that makes this study difficult is to see how useful it is with the involvement of obligation to give notice. While measurement of knowledge is practicable, seeing how the effects in real life work are not as easy. Perhaps instead of measuring the results in points it would have been better to use some form of validation to investigate how useful the game is, such as an expert validating the game. In addition to the games, it would have been useful to measure something else such as regular text or workshops.

Another thing that must be taken in consideration is the time span in which the participants did the study. It is possible that people who did it quicker than the rest of the participants had a better chance at remembering the knowledge they gained.

Since this is a game dealing how to handle situation were a child is being harmed it was taking in consideration that the game was not meant to handle situations like violence or sexual abuse. The reasoning for this was to not use a situation that was clear to the player that they needed to call social services but also to avoid adding shocking material the game. It is believed that including those type of situations would have lead to a different type of serious game since dealing with such situations are different. Instead, the game focused on situations that was meant to be more of grey zones such a child not wearing proper clothing in colder seasons and how you make a report for obligation to give notice. While grey zone questions may not be as serious situations as violence and sexual abuse, the data collected showed that there are still difficulties to know how to act when there is a need for action.

Overall participants were positive to the test but a few participants were not. This is understandable since games usually are seen as only useful for entertainment. One of the reason participants might feel uncomfortable could be because of that. However, it could also be that they find the game used in this thesis to be of poor quality and thus are given it a negative response. When designing and writing for this type of serious game it is good to keep in mind that you should avoid using mechanics that are used to make a game fun. Using fun mechanics is likely to clash badly with serious subject in the game. Instead, focus on creating a game with mechanics that can be of use in real life, such as knowing how to act if a problem occurs and still keep the game engaging. Since all participants that were sought out to do the survey were over 18 years old, the game was created with that audience in mind. If there something that would have been good to add into the game, it would have been pictures but it would have to been fitting pictures that did not break the serious tone of the game.

6.3 Future Work

Since this was a small study, a larger amount of participants would give a more reliable end result. It would also be interesting to use different methods to test next to the serious game, such as regular text reading or group training to see if the participants learn more from that.

Another possible test in the future is to set a tighter deadline when participants are doing the two weeks post test, to make time less of a factor that plays into the results, for example, if a participant decides or can not do the test on the day that survey was sent out that means they waited longer than the rest of the participants.

The prototype in this thesis is not completely finished yet. Future work includes adding the features that fulfil Tidaholm's needs and making the prototype into a fully-fleshed serious game.

The thesis could be useful for development of similar serious games and/or insight for similar studies in the future.

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Appendix A

Questions Part 1 (Used in both versions of the game)

Hej och välkommen till min undersökning om orosanmälan. Du kommer att börja att göra ett test om orosanmälan, därefter spela igenom ett kort spel om orosanmälan. Sedan kommer du ta en 15 minuters till 4 timmars paus, hur länge pausen ska vara väljer du själv, innan vi kör ytterligare ett test. Till sist kommer ett sista test om cirka 2 veckor till din e-mail som du ska svara på. (Hi and welcome to my study about obligation to give notice. You will start with a test about obligation to give notice, thereafter play through a short game about obligation to give notice. After that you take a fifteen minutes to four hours pause, you decide how long the break will be, before another test. At least there will a test in circa 2 weeks to your e-mail that you shall answer.)

Notera att svar med cirklar betyder att du endast kan välja ett alternativ medan svar med fyrkanter betyder att du kan välja flera alternativ. (Note that answers with circles means that you can only choose one of the answers while answers with squares means you can choose more than one answers.)

Genom att vara med i undersökningen godkänner du att vara med i undersökningen. Du kommer att vara anonym i svaren som samlas in. Du har rätt att avbryta undersökningen när du vill. Data som samlas in kommer att användas till mitt examensarbete och framtida utvecklande av spelet. Detta spel kommer att användas i Tidaholms kommun. Din e-mail adress kommer endast att användas till att skicka ut spelet och en enkät. (By being part of the study you accept being part of the study. You will be anonymous in the answers that are collected. You have the right to cancel the study whenever you want. Data that is collected will be used in my thesis project and future development of the game. This game will be used in the municipality of Tidaholm. Your e-mail adress will only be used to send out the game and a study.)

Har du jobbat med barn eller studerat för ett jobb där man möter barn på arbetsplatsen?
(Have you worked with children or studied for a work involving meeting children at the work place?)

Ja (Yes)

Nej (No)

Om du svarade ja på förgående fråga, vad för typ av arbete/utbildning?(If you said yes in the last question, what type of work/education?)

Fick ni någon information om orosanmälan på arbetet/utbildningen?(Did you receive any information about obligation to give notice on the work/education?)

Hur mycket känner du till om orosanmälan?(How much did you know about obligation to give notice?)

Ingenting (Nothing)

Väldigt lite (Very Little)

Lite (Little)

Ganska mycket (Quite a lot)

Mycket (A lot)

Vilka uppgifter kan man skriva ner på en orosanmälan blankett? Försök nämna så många saker du kan. (What information can you write down on an obligation to give notice form? Try to mention as many as you can.)

När ska man orosanmäla vid misstankar att ett barn far illa? (When should you report suspicion if a child is being harmed?)

Alltid(Always)

Aldrig (Never)

Ibland (Sometimes)

Om man jobbar med barn och misstänker att något inte står rätt till med ett barn, ska man då vänta efter fler tecken/bevis innan man anmäler? (If you are working with children and notice something does not seem right, should you wait for more signs/evidence before you report?)

Jag behöver inte anmäla (I do not need to report)

Vänta på mer bevis (Wait for more evidence)

Anmäla misstankar direkt (Report suspicion immediately)

Det är barnets ansvar att anmäla (It is the child's responsibility to report)

Det är barnets ansvar att berätta för mig (It is the child's responsibility to tell me)

Hur gör man en anmälan?(How do you report?)

Ringa och anmäla till socialtjänsten (Call and report to social services)

Påpeka att en anmälan krävs till min chef eller annan ansvarig på mitt jobb (Call attention to my boss or any other person who is responsible to do the reporting at my work.)

Skriva en anmälningsblankett till socialtjänsten(Write a report to social services.)

Kan man göra en anmälan anonymt när man jobbar med barn? (Can you do a report about obligation to give notice anonymous when you are working with children?)

Ja (Yes)

Nej (No)

Det beror på situationen (That depends on the situation)

Ska man berätta för föräldrarna om anmälan? (Should you tell the parents about the report?)

Nej, det kan vara farligt för barnet i vissa situationer (No, it could be dangerous for the child in certain situations)

Nej, det måste jag inte (No, I do not have to)

Nej, det borde jag inte (No, I should not)

Ja, det måste jag (Yes, I need to)

Ja, det borde jag (Yes, I should)

Ska man prata med barnet om orosanmälan? (Should you talk with the child about obligation to give notice?)

Det är bra att låta barnet själv ge sina synpunkter (It is good to let the child say their side of the situation)

Nej, bäst att lita på sina egna åsikter (No, it is better to trust your own opinions)

Hur ställer man frågor till barnet under mötet? (How do you ask questions to the child during the meeting?)

Använd frågor från ett formulär (Use questions from a formulary)

Ställ öppna frågor. (Ask open questions)

Lyssna på barnet (Listen to the child)

Varför är det bäst att lita på sin egen uppfattning? (Why is it best to trust your own view?)

Vilka typer av stöd finns det i Tidaholms kommun? (What type of support exists in the municipality of Tidaholm?)

Socialtjänsten kan erbjuda ett begränsat antal råd- och stödsamtal (Social services can supply with a limited amount of advice and support calls.)

Socialtjänsten kan erbjuda ett obegränsat antal råd- och stödsamtal (Social services can supply with an unlimited amount of advice and support calls.)

Familjecentralen (Family central)

Bistånd hos socialtjänsten (Help from social services)

Föräldragrupperna i kommunen, ABC och KOMET (The family groups in the municipality, ABC and KOMET.)

Föräldragrupperna i kommunen CBA och Asteroid (The family groups in the municipality, CBA and Asteroid.)

Socialtjänsten har en chatt där man kan ställa frågor (Social services has a chat where you can ask questions)

IFO inom socialtjänsten (IFO within social services)

Kan jag vara med när socialtjänsten möter familjen? (Can I be when the social services meet the family?)

Nej jag får inte vara med (No, I can not be with them)

Jag får bara vara med i speciella fall (I can only be with them on special cases)

Ja, jag får vara med (Yes, I can be with them)

Vad får du veta efter en anmälan har gjorts? (What do you learn after a report has been done?)

Ingenting, allt är sekretesskyddat (Nothing, everything is under secrecy)

Jag får veta om utredningen har inletts och vilka insatser som familjen erbjuds (I will know if an investigation has started and what efforts the family has been offered)

Jag får veta om utredningen har inletts men inte vilka insatser som familjen erbjuds (I will know if an investigation has started but not what efforts the family has been offered)

Skriv in din e-mail nedan och spelet kommer att skickas till dig. (Write down your e-mail and the game will be sent to you)

Appendix B

Questions Part 2 (Instant version)

Vad tyckte du om att använda berättande i spel för att lära ut om orosanmälan?(What did you think about using storytelling in games to teach about obligation to give notice?)

1, jag tyckte inte alls om det, till 5, jag gillade det starkt (1, I did not like it all, to 5, I liked it a lot)

Tror du berättandet i spelet hjälpte dig att lära mer om orosanmälan? (Do you think the storytelling in the game helped you learn more about obligation to give notice?)

Tror du spelet hjälpte dig att lära dig mer om orosanmälan? Varför? (Do you think the game helped you teach more about obligation to give notice? Why?)

Vad skulle kunna förbättras i spelet för att underlätta lärandet? (What can be improved in the game to make it easier to learn?)

Vad tyckte du om att spelet sa till dig att du hade gjort rätt eller fel direkt? (What did you think about the game telling you if you had done something right or wrong immediately?)

1, jag tyckte inte alls om det, till 5, jag gillade det starkt (1, I did not like it all, to 5, I liked it a lot)

Vad var bra och dåligt med att spelet sa till dig om du hade gjort rätt eller fel direkt? (What was good and bad with the game telling you immediately if you had done something right or wrong?)

Vilka uppgifter kan man skriva ner på en orosanmälan blankett? Försök nämna så många saker du kan. (What information can you write down on an obligation to give notice form? Try to mention as many as you can.)

När ska man orosänmäla vid misstankar att ett barn far illa? (When should you report suspicion if a child is being harmed?)

Alltid(Always)

Aldrig (Never)

Ibland (Sometimes)

Om man jobbar med barn och misstänker att något inte står rätt till med ett barn, ska man då vänta efter fler tecken/bevis innan man anmäler? (If you are working with children and

notice something does not seem right, should you wait for more signs/evidence before you report?)

Jag behöver inte anmäla (I do not need to report)

Vänta på mer bevis (Wait for more evidence)

Anmäla misstankar direkt (Report suspicion immediately)

Det är barnets ansvar att anmäla (It is the child's responsibility to report)

Det är barnets ansvar att berätta för mig (It is the child's responsibility to tell me)

Hur gör man en anmälan?(How do you report?)

Ringa och anmäla till socialtjänsten (Call and report to social services)

Påpeka att en anmälan krävs till min chef eller annan ansvarig på mitt jobb (Call attention to my boss or any other person who is responsible to do the reporting at my work.)

Skriva en anmälningsblankett till socialtjänsten(Write a report to social services.)

Kan man göra en anmälan anonymt när man jobbar med barn? (Can you do a report about obligation to give notice anonymous when you are working with children?)

Ja (Yes)

Nej (No)

Det beror på situationen (That depends on the situation)

Ska man berätta för föräldrarna om anmälan? (Should you tell the parents about the report?)

Nej, det kan vara farligt för barnet i vissa situationer (No, it could be dangerous for the child in certain situations)

Nej, det måste jag inte (No, I do not have to)

Nej, det borde jag inte (No, I should not)

Ja, det måste jag (Yes, I need to)

Ja, det borde jag (Yes, I should)

Ska man prata med barnet om orosanmälan? (Should you talk with the child about obligation to give notice?)

Det är bra att låta barnet själv ge sina synpunkter (It is good to let the child say their side of the situation)

Nej, bäst att lita på sina egna åsikter (No, it is better to trust your own opinions)

Hur ställer man frågor till barnet under mötet? (How do you ask questions to the child during the meeting?)

Använd frågor från ett formulär (Use questions from a formulary)

Ställ öppna frågor. (Ask open questions)

Lyssna på barnet (Listen to the child)

Varför är det bäst att lita på sin egen uppfattning? (Why is it best to trust your own view?)

Vilka typer av stöd finns det i Tidaholms kommun? (What type of support exists in the municipality of Tidaholm?)

Socialtjänsten kan erbjuda ett begränsat antal råd- och stödsamtal (Social services can supply with a limited amount of advice and support calls.)

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Nej jag får inte vara med (No, I can not be with them)

Jag får bara vara med i speciella fall (I can only be with them on special cases)

Ja, jag får vara med (Yes, I can be with them)

Vad får du veta efter en anmälan har gjorts? (What do you learn after a report has been done?)

Ingenting, allt är sekretesskyddat (Nothing, everything is under secrecy)

Jag får veta om utredningen har inletts och vilka insatser som familjen erbjuds (I will know if an investigation has started and what efforts the family has been offered)

Jag får veta om utredningen har inletts men inte vilka insatser som familjen erbjuds (I will know if an investigation has started but not what efforts the family has been offered)

Skriv in din e-mail nedan och spelet kommer att skickas till dig. (Write down your e-mail and the game will be sent to you)

Appendix C

Questions Part 2 (Delayed version)

Vad tyckte du om att använda berättande i spel för att lära ut om orosanmälan?(What did you think about using storytelling in games to teach about obligation to give notice?)

1, jag tyckte inte alls om det, till 5, jag gillade det starkt (1, I did not like it all, to 5, I liked it a lot)

Tror du berättandet i spelet hjälpte dig att lära mer om orosanmälan? (Do you think the storytelling in the game helped you learn more about obligation to give notice?)

Tror du spelet hjälpte dig att lära dig mer om orosanmälan? Varför? (Do you think the game helped you teach more about obligation to give notice? Why?)

Vad skulle kunna förbättras i spelet för att underlätta lärandet? (What can be improved in the game to make it easier to learn?)

Vad tyckte du om att spelet sa till dig att du hade gjort rätt eller fel i slutet av spelet? (What did you think about the game telling you if you had done something right or wrong at the end of the game?)

1, jag tyckte inte alls om det, till 5, jag gillade det starkt (1, I did not like it all, to 5, I liked it a lot)

Vad var bra och dåligt med att spelet sa till dig om du hade gjort rätt eller fel i slutet av spelet? (What was good and bad with the game telling you if you had done something right or wrong at the end of the game?)

Vilka uppgifter kan man skriva ner på en orosanmälan blankett? Försök nämna så många saker du kan. (What information can you write down on an obligation to give notice form? Try to mention as many as you can.)

När ska man orosänmäla vid misstankar att ett barn far illa? (When should you report suspicion if a child is being harmed?)

Alltid(Always)

Aldrig (Never)

Ibland (Sometimes)

Om man jobbar med barn och misstänker att något inte står rätt till med ett barn, ska man då vänta efter fler tecken/bevis innan man anmäler? (If you are working with children and notice something does not seem right, should you wait for more signs/evidence before you report?)

Jag behöver inte anmäla (I do not need to report)

Vänta på mer bevis (Wait for more evidence)

Anmäla misstankar direkt (Report suspicion immediately)

Det är barnets ansvar att anmäla (It is the child's responsibility to report)

Det är barnets ansvar att berätta för mig (It is the child's responsibility to tell me)

Hur gör man en anmälan?(How do you report?)

Ringa och anmäla till socialtjänsten (Call and report to social services)

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Kan man göra en anmälan anonymt när man jobbar med barn? (Can you do a report about obligation to give notice anonymous when you are working with children?)

Ja (Yes)

Nej (No)

Det beror på situationen (That depends on the situation)

Ska man berätta för föräldrarna om anmälan? (Should you tell the parents about the report?)

Nej, det kan vara farligt för barnet i vissa situationer (No, it could be dangerous for the child I certain situations)

Nej, det måste jag inte (No, I do not have to)

Nej, det borde jag inte (No, I should not)

Ja, det måste jag (Yes, I need to)

Ja, det borde jag (Yes, I should)

Ska man prata med barnet om orosanmälan? (Should you talk with the child about obligation to give notice?)

Det är bra att låta barnet själv ge sina synpunkter (It is good to let the child say their side of the situation)

Nej, bäst att lita på sina egna åsikter (No, it is better to trust your own opinions)

Hur ställer man frågor till barnet under mötet? (How do you ask questions to the child during the meeting?)

Använd frågor från ett formulär (Use questions from a formulary)

Ställ öppna frågor. (Ask open questions)

Lyssna på barnet (Listen to the child)

Varför är det bäst att lita på sin egen uppfattning? (Why is it best to trust your own view?)

Vilka typer av stöd finns det i Tidaholms kommun? (What type of support exists in the municipality of Tidaholm?)

Socialtjänsten kan erbjuda ett begränsat antal råd- och stödsamtal (Social services can supply with a limited amount of advice and support calls.)

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Jag får bara vara med i speciella fall (I can only be with them on special cases)

Ja, jag får vara med (Yes, I can be with them)

Vad får du veta efter en anmälan har gjorts? (What do you learn after a report has been done?)

Ingenting, allt är sekretesskyddat (Nothing, everything is under secrecy)

Jag får veta om utredningen har inletts och vilka insatser som familjen erbjuds (I will know if an investigation has started and what efforts the family has been offered)

Jag får veta om utredningen har inletts men inte vilka insatser som familjen erbjuds (I will know if an investigation has started but not what efforts the family has been offered)

Skriv in din e-mail nedan och spelet kommer att skickas till dig. (Write down your e-mail and the game will be sent to you)

Appendix D

Questions Part 3 (Used in both versions of the game)

Vilka uppgifter kan man skriva ner på en orosanmälan blankett? Försök nämna så många saker du kan. (What information can you write down on an obligation to give notice form? Try to mention as many as you can.)

När ska man orosanmäla vid misstankar att ett barn far illa? (When should you report suspicion if a child is being harmed?)

Alltid(Always)

Aldrig (Never)

Ibland (Sometimes)

Om man jobbar med barn och misstänker att något inte står rätt till med ett barn, ska man då vänta efter fler tecken/bevis innan man anmäler? (If you are working with children and notice something does not seem right, should you wait for more signs/evidence before you report?)

Jag behöver inte anmäla (I do not need to report)

Vänta på mer bevis (Wait for more evidence)

Anmäla misstankar direkt (Report suspicion immediately)

Det är barnets ansvar att anmäla (It is the child's responsibility to report)

Det är barnets ansvar att berätta för mig (It is the child's responsibility to tell me)

Hur gör man en anmälan?(How do you report?)

Ringa och anmäla till socialtjänsten (Call and report to social services)

Påpeka att en anmälan krävs till min chef eller annan ansvarig på mitt jobb (Call attention to my boss or any other person who is responsible to do the reporting at my work.)

Skriva en anmälningsblankett till socialtjänsten(Write a report to social services.)

Kan man göra en anmälan anonymt när man jobbar med barn? (Can you do a report about obligation to give notice anonymous when you are working with children?)

Ja (Yes)

Nej (No)

Det beror på situationen (That depends on the situation)

Ska man berätta för föräldrarna om anmälan? (Should you tell the parents about the report?)

Nej, det kan vara farligt för barnet i vissa situationer (No, it could be dangerous for the child in certain situations)

Nej, det måste jag inte (No, I do not have to)

Nej, det borde jag inte (No, I should not)

Ja, det måste jag (Yes, I need to)

Ja, det borde jag (Yes, I should)

Ska man prata med barnet om orosanmälan? (Should you talk with the child about obligation to give notice?)

Det är bra att låta barnet själv ge sina synpunkter (It is good to let the child say their side of the situation)

Nej, bäst att lita på sina egna åsikter (No, it is better to trust your own opinions)

Hur ställer man frågor till barnet under mötet? (How do you ask questions to the child during the meeting?)

Använd frågor från ett formulär (Use questions from a formulary)

Ställ öppna frågor. (Ask open questions)

Lyssna på barnet (Listen to the child)

Varför är det bäst att lita på sin egen uppfattning? (Why is it best to trust your own view?)

Vilka typer av stöd finns det i Tidaholms kommun? (What type of support exists in the municipality of Tidaholm?)

Socialtjänsten kan erbjuda ett begränsat antal råd- och stödsamtal (Social services can supply with a limited amount of advice and support calls.)

Socialtjänsten kan erbjuda ett obegränsat antal råd- och stödsamtal (Social services can supply with an unlimited amount of advice and support calls.)

Familjecentralen (Family central)

Bistånd hos socialtjänsten (Help from social services)

Föräldragrupperna i kommunen, ABC och KOMET (The family groups in the municipality, ABC and KOMET.)

Föräldragrupperna i kommunen CBA och Asteroid (The family groups in the municipality, CBA and Asteroid.)

Socialtjänsten har en chatt att där man kan ställa frågor (Social services has a chat where you can ask questions)

IFO inom socialtjänsten (IFO within social services)

Kan jag vara med när socialtjänsten möter familjen? (Can I be when the social services meet the family?)

Nej jag får inte vara med (No, I can not be with them)

Jag får bara vara med i speciella fall (I can only be with them on special cases)

Ja, jag får vara med (Yes, I can be with them)

Vad får du veta efter en anmälan har gjorts? (What do you learn after a report has been done?)

Ingenting, allt är sekretesskyddat (Nothing, everything is under secrecy)

Jag får veta om utredningen har inletts och vilka insatser som familjen erbjuds (I will know if an investigation has started and what efforts the family has been offered)

Jag får veta om utredningen har inletts men inte vilka insatser som familjen erbjuds (I will know if an investigation has started but not what efforts the family has been offered)

Skriv ner din e-mail, detta är för att kunna koppla ihop dina tidigare svar så använd samma email adress som tidigare.(Write down your email, this is to connect your earlier answers with the same e-mail as before.)

Appendix E

Dagarna gick på det nya jobbet och jag trivdes. Jag kom överens med barnen och arbetskollegorna.

Men efter ett tag så började jag notera att något kändes fel. Det var ett barn som alltid kom senare än alla andra barn. Jag noterade också att barnet hade en väldigt tunn jacka för den kalla vintern. Barnet började bli allt mer tystlåtnare i skolan.

Samtidigt hade jag inre tvivel om detta räckte som misstankar att något inte stod rätt till.

Jag insåg att jag...

borde sköta mitt eget

borde vänta efter fler tecken

borde anmäla mina misstankar

borde låta barnet själv göra anmälan

Figure A Picture from the instant version and delayed version. The situation depicts when the player needs to make a choice if they should report a child wearing too thin clothes in the winter.

När jag gick till mitt arbetsrum efter dagen var slut så hade jag bestämt mig. Jag valde att gå vidare med mina misstankar, jag ville inte att barnen skulle fara illa.

Senare den dagen, läste jag en text om orosanmälan på Internet. Där stod det att orosanmälan måste ske omedelbart för barnets bästa. Det är upp till socialtjänsten att bedöma situationen, inte jag. Jag kände att jag hade gjort ett bra beslut som gynnade barnet.

Jag kliade mig på huvudet när jag satt i mitt kontor. Jag var dock lite osäker exakt var jag skulle göra anmälan.

Gå vidare

Figure B Picture from the instant version. Scenario that plays out when the player chooses to report to situation to authorities. The game notes that the player choose correctly.

När jag gick till mitt arbetsrum efter dagen var slut så hade jag bestämt mig. Jag valde att gå vidare med mina misstankar, jag ville inte att barnen skulle fara illa.

Gå vidare

Figure C Picture from the delayed version. Scenario that plays out when the player chooses to report to situation to authorities. The game does not note that the player choose correctly.

Detta gjorde du rätt när du gjorde utbildningen:

Man ska anmäla direkt om man har misstankar att någon inte står rätt till hos barnet.

Du kan inte lämna över en anmälan till din chef eller någon annan person, anmälan är personlig.

Man kan inte vara anonym i sin anmälan.

Det är bra att låta barnet själv få uttrycka sina synpunkter om situationen.

Att lyssna och höra på barnets egna åsikter är viktigt. Ställ gärna öppna frågor som låter barnet få uttrycka sig själv.

Figure D Picture from the delayed version. After all of the game's scenarios have ended, the game shows what you did correctly and incorrectly.

Appendix F

Instant version - Comments from Participants

Vad tyckte du om att använda berättande i spel för att lära ut om orosanmälan? (Do you think the storytelling in the game helped you learn more about obligation to give notice?)

- Ja, jag tror det är lättare att ta till sig informationen om man är aktivt deltagande och får göra val. (Yes, I think it is easier to understand the information when you are active part of it and makes choices.)
- Ja det tror jag (Yes, I think so.)
- Ja. (Yes.)
- Ja absolut! (Yes, absolutely!)
- Ja, det gjorde att man var mer uppmärksam på vad som hände. (Yes, it made you more attentive of what was happening.)
- ja (yes)
- Ja, det kändes mer naturligt och lättare att ta sig åt än en 'facklig' text såsom en broschyr eller ett utdrag ur en bok. (Yes, it felt more natural and easier to understand than reading a "fact" text such as booklet or a book.)
- Personligen hade jag föredragit att läsa från en blankett etc, det känns mindre seriöst att få denna info via ett spel. (Personally I would have preferred to read from a booklet e.t.c, it felt less serious to get this information from a game.)
- JA (YES)
- Ja (Yes.)
- Ja, och med vidare utveckling av spelet tror jag att det kan vara användbart. (Yes, and with further development of the game I think it can be useful.)

Tror du spelet hjälpte dig att lära dig mer om orosanmälan? Varför?

- Ja, spelet ställde upp en situation som gjorde det tydligt och enkelt att ta till sig informationen. (Yes, the game put up a situation that made it clear what to do and easy to take in the information.)
- Det väckte mitt intresse och höll mig intresserad (It made me keep my interest and kept me interested.)
- Främst därför att jag fick beskrivet för mig hur jag misslyckades. Scenariot var inte för subjektivt heller, det balanserade bra nog mellan fiktion och verklighet för att jag skulle kunna måla upp en bild i huvudet av vilka sorters scenarion det skulle kunna vara, snarare än att få mig engagerad och borttappad i ett enda scenario. (Mainly because it described when I failed. The scenario was not too subjective either, it was a good balance between fiction and reality so I could paint a picture in my head what scenarios it should be, rather than to get my engaged and lost in one scenario.)

- Ja, jag visste ganska lite om orosanmälan innan men nu fick jag en genomgång av det. (Yes, I knew very little about obligation to give notice but now I got a walkthrough about it.)
- ja, mina tankar sattes i kontext och jag fick direkt respons på eventuella frågetecken. (Yes, my thoughts are getting a context and direct responses of eventual questions.)
- Ja. Som tidigare nämnt kändes det mer naturligt och jag hade lättare att ta åt mig informationen. (Yes. As mentioned earlier it felt more natural and I had it easier to understand the information.)
- Jag hade inte hört om det tidigare alls, så självklart lärde jag mig mer. (I have never heard of it before, so of course I learned something.)
- Hela spelet var som en konversation, så det var enkelt att vilja spela "läsa" vidare och på så sätt lära sig om orosanmälan. (The whole game was a conversation, so it was easy to play "read" further and learn more about obligation to give notice.)
- - (-)
- Ja. Det var intressant att kastas in i en fiktiv, men möjlig, situation. Jag tror det kan bli enklare att erinra sig om detaljer (i detta fall, orosanmälan) när man har en större, sammanhängande utgångspunkt (i detta fall, berättelsen). (Yes. It was interesting to be thrown into a fiktiv but possible situation. I think it can be easier to recall details, in this case obligation to give notice, when you have a bigger, coherent starting points, in this case the story).
- Ja, det tror jag. Dels för att det rättade mig om jag svarade fel, och dels för att det kunde berätta när jag hade rätt. (Yes, I think so. Partly because it correct me when I answers incorrect and partly because it could tell me when I did correctly.)
-

Vad skulle kunna förbättras i spelet för att underlätta lärandet?

- Kunde bli ganska mycket information åt gången. (Could be a lot of information sometimes.)
- Namn på personerna i spelet (Name for the characters in the game.)
- När man fick möta barnet och välja tillvägagångssätt hade det behövt vara mindre uppenbart vilket som var det bättre alternativet. Det ena ser godhjärtad ut medan det andra ser för generiskt ut, man förstår vilket av svaren som spelet står för utan att kolla upp något. Tendens till samma pekande text finns i sista frågan i den här enkäten. (When you are meeting the child, and chooses what to do there needs to be less obvious which one is the better alternative. One is goodhearted and the other one too generic, you understand what choice to choose. A tendency for the same type of pointing question is in the last question in this survey.)
- Svaren på frågorna blir mest gissningar eller vad som låter rimligt om man inte har några tidigare kunskaper om orosanmälan. Det kanske vore bra att ge spelaren informationen i förväg och ha spelet som ett prov. Fast om spelet är tänkt att användas av personer som redan har fått information om orosanmälan via sina jobb

är nog inte det ett problem. (The answers for the questions are mostly guesses or trying to figure out what is right if you have no knowledge about obligation to give notice. Maybe it is good to give players information before hand and have the game as a test. Though, if the game was meant to give people knowledge through there job it is not a problem.)

- kanske att man fick möjligheten att lyssna på spelets konversationer (maybe have the opportunity to listen to the game's conversations.)
- Vissa svar kändes lite barska och ibland var flödet lite hackigt, men överlag är idén och det grundliga utförandet uppfriskande och engagerande. (Some answers felt to harsh and sometimes the flow was jagged, but overall the idea and execution was good and engaging.)
- Vet ej. (Do not know.)
- BILDER! (Pictures!)
- - (-)
- När man ombads klicka in flera alternativ kring hjälpen som fanns tillgänglig i Tidaholm så fann jag det svårt att minnas exakt vad jag hade valt i sidan därpå. Man fick återkoppling på vad man missade eller klickade fel, men man kanske hade kunnat få se de alternativen man hade valt som var rätta också. (When you were asked to click in many different alternatives for what help is available in Tidaholm I thought it was hard to remember what I had chosen. You got feedback what you had missed but it would have been good to see the other alternatives that were right too.)
- Det är svårt att som utomstående veta vad en specifik kommun erbjuder för möjligheter i fall om orosanmälan, och det är svårt att veta vad förkortningar i sådana sammanhang betyder om man inte tidigare är bekant med dem. En förklaring av sådant vore kanske bra. (It is hard to know as an outsider what a certain municipality are offering for support and it is hard to know what abbreviation are standing for in this context. An explanation might have been good.)

Vad var bra och dåligt med att spelet sa till dig om du hade gjort rätt eller fel direkt?

- Lättare att komma ihåg om jag direkt ser vad om var fel. (It was easier to remember if I saw directly what was wrong.)
- Det sa inte "du är dålig som gjorde fel" utan förklarade vänligt att det inte var rätt (It did not say "you are bad if you did something wrong", instead it explained kindly what was not correct.)
- Jag fick känna av effekten av mina misstag till viss mån. Det hjälpte särskilt när det presenterades genom de andra karaktärerna i berättelsen. Det dåliga med att få rätt var att jag ibland inte fick information om huruvida jag faktiskt hade valt rätt eller inte. Mina väl glömmer jag ganska snabbt när jag bytt sida eftersom jag inte har någon tidigare kunskap, så tydligare anmärkningar där hade varit bra. (I felt the

effect of my mistakes to a certain degree. It especially helps when it was represented by other characters in the story. What was bad with the game was when I got correct answers, I did not always get information if I had chosen correctly or not. I forgot my choices pretty quickly when I changed page since I did not have any earlier knowledge, so clearer commentary would have been good.)

- Man hinner inte skapa felaktiga uppfattningar om man får veta att man har gjort fel direkt. (You will not have time to create incorrect opinions since you learned what you did incorrectly immediately.)
- det var bra att ens tankar fick direkta svar, man lär sig av misstag (It was good to have instant answers, you learned from your mistakes.)
- Det var bra, då fick man direkt svar och kunde återkoppla till det. (It was good, you got instant answers and could use the feedback.)
- Bra, annars hade man inte förstått vad som var rätt i slutändan. (Good, otherwise you would not have understood what was right in the end.)
- Man blir rättad direkt och lägger det rätta svaret på minnet mycket lättare. (You got feedback instantly and it made it much easier to add the right answers in your memory.)
- - (-)
- Det var bra. Den snabba återkopplingen gjorde ett starkt intryck. "Nu har jag klantat till mig rejält, och det kan få svåra konsekvenser. Jag får skärpa mig i framtiden" var ungefär vad jag tänkte. (It was good. The quick feedback made a strong impression on me. "Now I have made a mistake and might face consequences. I need to concentrate." was kinda what I thought.)
- Det var bra. I ett sådant här fall är det viktigt att direkt få feedback på vad som stämmer och vad som inte gör det, för att jag själv ska kunna korrigera min kunskap om vad som gäller. It was good. In this situation it was important to get instant feedback and what was correct and incorrect so I could change my knowledge about what was happening.)

Delayed Feedback - Comments from Participants

Tror du berättandet i spelet hjälpte dig att lära mer om orosanmälan? (Do you think the storytelling in the game helped you learn more about obligation to give notice?)

- Det finns definitivt potential för att lära ut via berättande i spel. Jag tror inte det är någon större skillnad i mitt fall än att läsa en vanlig text. (There is definitely potential when teaching with games. In my case though, I think it would not have been different than reading a regular text.)
- Ja (Yes.)
- Ja (Yes.)

- Ja. (Yes.)
- Nej, kan inte säga att det åstadkom någon större påverkning i mitt fall. Kändes mest som att jag fick typiska formulärfrågor utan substans och att frågorna kändes väldigt fränkopplade från varandra. (No, in my case I can not say it had any bigger impacts in my case. Mostly felt that I was getting typical survey questions without substance and the questions felt very disconnected from each other.)
- Ja, verkligen (Yes, really)
- Ja, till en viss del (Yes, to a certain degree.)
- Ja (Yes.)
- Ja, man blir mer engagerad än om man enbart skulle läsa en text. (Yes, you will be more engage than reading a text.)
- Ja (Yes.)
- Ja det uppmärksammade saker jag inte visste om ämnet (Yes, it brought up things I did not know about the topic.)

Tror du spelet hjälpte dig att lära dig mer om orosanmälan? Varför? (Do you think the game helped you teach more about obligation to give notice? Why?)

- Eftersom jag inte hade några tidigare erfarenheter kring orosanmälan så hjälpte spelet definitivt lärandet om detta. (Because I did not have any earlier experience about obligation to give notice, it helped with the teaching.)
- Ja, för att det är skönt att få informationen i en kontext, jag tror att det är lättare att minnas då (Yes, because it helped to get information in a kontext, I think it is easier to remember than.)
- Ja, i slutet stog det saker jag bör tänka på, sånt jag inte visste. (Yes, in the end it brought up things I should think about, things I did not not know.)
- Det var lättare att sätta sig in i situationer, och förstå hur det fungerar. (It was easier to remember in situations, and understand how it'll work.)
- Ja, då detta är inget som jag någonsin har påträffat eller tänkt på så var det härligt att få lära sig lite mer om dessa samhällsproblem, även om att mycket är sunt förnuft. (Yes, this is nothing like I ever done or thought about so it was good to learn more about the problem, even if a lot is about simple reason.)
- Jag har tänkt i ett bredare perspektiv (I have thought in a wider perspective.)
- Det var "något som hände", men som sagt gör det lite mer verkligt med ljud, bilder och så vidare. (There was something that happened, but as said, make it more real with sound, pictures and so on.)
- Det beskrev vad jag redan visste samt vad jag inte hade kunskap om. (It described what I already knew and what I did not know.)
- Ja, absolut! (Yes, absolutely!)
- Man sätter sig in i situationen bättre när det blir en berättelse, hur man tänker. Och då kommer man lättare ihåg istället för att bara se en blankett (It is easier to insert

yourself in a situation when it is a story, how you think. And than it is easier to remember than just looking at a booklet.)

- För att det vävde in frågor man måste ställa sig själv inför att göra en anmälan (Because it ties questions you ask yourself before reporting.)

Vad skulle kunna förbättras i spelet för att underlätta lärandet?

- Stundtals var det svårt att koppla samman vad som hände. Mycket utav lärandet sitter också i berättelsen. En riktigt underhållande berättelse som suger in läsaren kan nog generera mer kunskap. (Sometimes it was hard to gathered what was happening. Much how the learning is in the story. A truly entertaining story that will such the reader in would probably generate more knowledge.)
- Jag tror att det hade varit om man antingen fick veta svaren direkt eller läsa om orosanmälan innan och sen spela igenom spelet för att memorera det. Det är svårt att veta vilka resurser som finns tillgängliga när man aldrig har hört talas om/tänkt på det (I think you either should get the answers immediately or read about obligation to give notice and then play the game to memorize. It is hard to remember what resources that are available when you have never heard about it before.)
- Tyckte det var bra (I thought it was good.)
- Jag vet inte, kanske ge mer emotionell text i vissa fall, då vi människor sätter saker på minnet bättre när vi känner mer för något. (I do not know, maybe more emotional text in some cases as we humans remember something better if we feel for it.)
- Bättre/längre narrativ. Att kanske basera det på en riktigt händelse med designade intriger för att få en djupare förståelse hur allvarligt dessa saker är. Koppla ihop händelser mer istället för: "En person kom och sa att de ville göra.." (Better/longer narrative. Maybe base it of a real case with designed intrigues to get a deeper understanding how serious these things are. Connect the situations instead of "A person came and said they wanted to...")
- Det var bra och lätt att läsa (it was good and easy to read.)
- Egna svar, ljud (berättarröst), mer grafik (färger), små info rutor, som man kan få mer information eller hjälp under spelets gång, bilder på byggnaden, personerna och så vidare för att göra det mer verkligt. (Your own answers, sound, narrator, more graphics, colours, small information squares that tells you more, pictures on the building, persons and so on to make it more real.)
- Lite bilder (Some pictures.)
- Kanske att man hade kunnat fått läsa en kort text innan man spelade så att man har ett hum om vad man kan svara, så att spelet blir en repetition/bekräftelse på texten man läste. Maybe you could have read a short text before playing so you knew something when answering, so the game become repetition/confirmation on the text you were reading.
- Inget (Nothing.)

- Ge spelaren mer val som inte faller in i extremer (Give the player more choices that does not fall into extremes.)

Vad var bra och dåligt med att spelet sa till dig om du hade gjort rätt eller fel i slutet av spelet? (What did you think about the game telling you if you had done something right or wrong at the end of the game?)

- Det var bra, annars är det svårt att reflektera över vad som är rätt eller fel. (it was good, hard to reflect what was right or wrong otherwise.)
- Det blev väldigt mycket information på en gång, jag tror att det är svårare att minnas det då (There was a lot of information at the same time, I think it is harder to remember than.)
- Fick lära mig mer (I learned more.)
- Jag tyckte att det var bra, men det hade varit intressant om man fick hints att du valt något fel tidigare. (I think it was good but it would have been interesting if you got hints if you had chosen something wrong earlier.)
- Bra: Lärde mig och fick se vad jag skulle ha gjort rätt eller fel i en situation om något liknande hade hänt i verkligheten. Dåligt: Skulle varit bra med lite faktisk information (om det finns) om varför Socialtjänsten i Tidaholm har vissa regler/hjälpmedel. (Good: Taught me something and told me what I had done right or wrong in a situation if something similar had happen in reality. Bad: Would have been good with some real information, if there was any, about why the social services in Tidaholm had certain rules/help.)
- Det är alltid bra att ta till sig olika saker och begrunda (It was good to think about different things.)
- Bra, för då fick man veta att det var rätt och vissa var fel. (Good, because than you know what was right and wrong.)
- Jag lärde mig av det så det var bra. Jag tyckte inte att det var dåligt faktiskt utan jag anser att man utvecklas av feedback. (I learned from it so that was good. I do not think it was bad but rather you develop with the feedback.)
- Det tyckte jag var jättebra! Att man får återkoppling på sina svar. (It was really good! That you get feedback on your answers.)
- Det var bra (It was good.)
- Det var bra att tydliggöra hur en anmälan ska utföras men straffande för val inte nödvändigtvis var "fel" (It was good to clarify how a report are made but punishing for answers was not necessarily wrong.)