

Usability guidelines for the creation and evaluation of functional and engaging tutorials in computer games

Bachelor-Thesis

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Abstract

This bachelor thesis establishes usability guidelines for the creation and evaluation of tutorials in computer games. It achieves this by discussing different guidelines found in literature for creating games and software in general and narrowing them down to relate specifically to tutorials. In addition to literature research a study was performed. This study does not only verify most of the pre-existing guidelines, it also discovered some new aspects uniquely important for tutorials as opposed to games in general, for instance the question if tutorials should be skippable and what problems might arise for the player regarding the game mechanics if a player misses the tutorial.

Zusammenfassung

Diese Bachelorarbeit stellt verschiedenen Richtlinien für die Erstellung und Bewertung von Tutorials (Einführungen) in Computerspielen auf. Dies wird erreicht, indem allgemeine Richtlinien aus der Literatur zur Erstellung von Spielen und Software diskutiert und auf für Tutorials interessante Richtlinien eingegrenzt werden. Darüber hinaus wurde eine Studie durchgeführt, welche die meisten der gefundenen Richtlinien bestätigt. Zusätzlich wurden einige neue Aspekte gefunden, welche insbesondere für Tutorials wichtig sind, wie die Frage nach überspringbaren Tutorials und die Probleme, die ein Spieler mit den Spielmechaniken haben könnte, sollte er aus Versehen das Tutorial verpassen.

1 Introduction

1.1 What is a tutorial? A short explanation

Today video games have reached a wide audience across many different population groups and can be considered one of the fastest growing entertainment industries [Pagulayan et al., 2007].

The earliest games had very simple controls and didn't necessarily require any explanation on how to play them because the player could figure that out by himself rather quickly [Andersen et al., 2012; Suddaby, 2012]. A good example here is the game 'Pong', even without knowing what the controls are or what the goal of the game is, a new player will be able to figure that out on his own quickly by experimenting [Neitzel et al., 2004].

When games got more complex, there was a need for the player to learn how to play the game, because otherwise he would get frustrated if he wouldn't for example know how to use the controls or what action he was allowed to do in the game [Andersen et al., 2012; Suddaby, 2012]. Therefore, games were often sold together with an instruction manuals which explained the controls, features and sometimes even gave an introduction into the story of the game [Andersen et al., 2012].

With games getting bigger and more complex however, these instruction manuals were also getting longer, which was a problem because of different reasons. For once the person buying a game of course mainly wants to play said game and not have to read through several boring pages of explanatory texts first [Neitzel et al., 2004; Pagulayan et al., 2007]. It is also unlikely that a person will remember everything from the instruction manual, if the information was only read out of context before starting to play the game [Shelley, 2001; Andersen et al., 2012].

Because this was frustrating for the player, in-game instructions or tutorials are nowadays common techniques to teach the player how to play the game, in context with the game [Neitzel et al., 2004]. The player should learn at least the basic controls and gameplay elements in the beginning of the game and develop those skills while continuing the game [Fromme et al., 2008]. If a player gets stuck, is confused or is taking too long for early tasks he might get frustrated [Sweetser and Wyeth, 2005].

1.2 Why are tutorials important? The role of tutorials in games

According to Sweetser and Wyeth [Sweetser and Wyeth, 2005] the most important part of a modern game is that the player has some sort of enjoyment (or fun [Pagulayan et al., 2007]). However, if the player has problems with the game mechanics and can not play the game properly, this leads to frustration and hinders the enjoyment of the game. As stated by Gee [Gee, 2003] this is especially important for games because of the huge competition in the gaming market. A player may lose interest in a game if the first game time, the tutorial, is not fun to him or does not teach the mechanics correctly. Therefore, it is important for a game to have a good tutorial. An approach often used in gaming is to use some kind of 'tutorial', for example a special training area at the beginning of the game, in which the basic mechanics are taught [Sweetser and Wyeth, 2005]. The importance of a tutorial increases with the complexity of a game [Sweetser and Wyeth, 2005].

1.3 Related work

Bycer [Bycer, 2016] discusses the importance of game tutorials based on his experience in game development and gives his personal advice for developing a tutorial.

Langlais [Langlais, 2014] describes how, during the development of their game *Toto Temple Deluxe*, they observed players not using some of the simple mechanics in this game even after reading the tutorial. They decided to implement the tutorial into the game menu, so the players would have to prove they can use the basic mechanics before starting the game. They concluded that players now barely notice they are learning and therefore get easier access to the game mechanics. On the other hand they noticed how difficult it was to balance between efficiency and clarity. They also added that this method would get confusing if too many physical buttons were involved.

1.4 Approach

To find the best guidelines for tutorials I will start looking into literature to find guidelines for games, especially those which can be applied to tutorials. Based on the research I will do a short study with the goal of verifying these guidelines. As conclusion of my work I will present an overview about guidelines which can be used by developer to improve their tutorials.

2 Theoretical background

2.1 Method

The goal of this study is to establish usability guidelines for the creation and evaluation of tutorials for computer games.

To achieve this, research into similar work containing usability guidelines for games and software in general was done. The results were then refined and merged into a list of guidelines that could be important for the specific case of a computer game tutorial. To evaluate the actual importance of each point a study was made in which as many guidelines as possible were verified and validated. Evaluating the results of the study, assumptions about the importance and correctness of the compiled usability guidelines are made and an overview about what to consider when creating or evaluating a tutorial is given.

2.2 Existing Guidelines for Games

There are already many guidelines for games in general found in literature, some of which can already be applied to tutorials. However, at the time of writing this thesis, there does not seem to be any literature containing guidelines specifically for tutorials.

To find the best guidelines for tutorials, I went through existing guidelines by Desurvire et al. [Desurvire et al., 2004], Federoff [Federoff, 2002] and Sweetser and Wyeth [Sweetser and Wyeth, 2005] to find those which seem to have a significant effect on tutorials. By combining the work of the different authors I composed the list of guidelines for tutorials found in table 2.1.

2 Theoretical background

1	Players should not have to read a manual	[Federoff, 2002; Sweetser and Wyeth, 2005; Desurvire et al., 2004]
2	Get the players involved quickly and grab his attention early	[Federoff, 2002; Sweetser and Wyeth, 2005]
3	The game should provide a tutorial for teaching the players how to play	[Federoff, 2002; Sweetser and Wyeth, 2005; Desurvire et al., 2004]
4	The game should give an appropriate amount of hints in a context sensitive way	[Federoff, 2002; Desurvire et al., 2004]
5	Teach skills early that are expected to be used later, or right before they are needed the first time	[Federoff, 2002; Desurvire et al., 2004]
6	Follow the trends set by the gaming community to meet the player's expectation and thereby shorten the learning curve	[Federoff, 2002; Desurvire et al., 2004]
7	Present overriding goals early and clearly	[Federoff, 2002; Sweetser and Wyeth, 2005; Desurvire et al., 2004]
8	Provide challenges at an appropriate pace to not frustrate the players	[Federoff, 2002; Sweetser and Wyeth, 2005; Desurvire et al., 2004]
9	Players should not be distracted from the tasks that they want or need to concentrate on	[Sweetser and Wyeth, 2005]
10	Learning the game and mastering challenges should be fun and positive game experiences	[Sweetser and Wyeth, 2005]
11	Games should include online help so players don't need to exit the game	[Sweetser and Wyeth, 2005]
12	Controls should be mapped consistently, easy to learn and use yet expandable for advanced options	[Sweetser and Wyeth, 2005; Desurvire et al., 2004]
13	Players should be rewarded appropriately for their effort and skill development	[Sweetser and Wyeth, 2005]
14	Players should be supported in recovering from errors and should not be penalised repetitively for the same failure	[Sweetser and Wyeth, 2005; Desurvire et al., 2004]
15	Players should receive feedback on progress toward their goals	[Sweetser and Wyeth, 2005]
16	The first player action is painfully obvious and should result in immediate positive feedback	[Desurvire et al., 2004]

Table 2.1: Guidelines extracted from literature

3 Method

3.1 Verifying the theory

The next step was testing the guidelines by performing a user study. The goal of this study was to determine which of the aforementioned guidelines are actually important and have a significant influence on the players experience. To achieve this, probands played the tutorial of two games, implementing different guidelines and were observed as well as asked about their experience with the game. The study was oriented on the study performed by Desurvire et al. [Desurvire et al., 2004].

To counter the problem that the transition between tutorial and normal gameplay is seamless and therefore it is hard to determine the end of the tutorial, each participant played the game for about 30 minutes.

For each guideline shown above (see table 2.1), a question or observation was created, to which the answer helps to determine the effects of that guideline on the players experience.

The points were divided into two sections, 'Question' and 'Observation':

- The 'Question' section contains different questions which are answered by the players themselves after they played each of the tutorials.
- The 'Observation' section contains different aspects which can be observed while the player is playing the tutorial. These are taken by the interviewer.

Some points appear in both 'Question' and 'Observation'. Those points are answered by the interviewer and are also asked to the player afterwards to ensure an even more in depth explanation on the answers and to find possible disparities between observed behaviour and perceived impressions by the player.

3.2 Usage of empirical testing

As shown by Cornett [Cornett, 2004] it is enough to have small sample sizes of test subjects for the evaluation of the user experience for games, because most of the problems for players can be determined by observing and asking only a few subjects. Therefore, I am using this approach to determine the effectiveness of the proposed guidelines by comparing their usage and the effects on players in two different games.

3.3 Game selection

One major part in designing the study was the selection of games. Because most simple games do not require an extensive tutorial (or sometimes even no tutorial at all) [Andersen et al., 2012] the games for the study had to be complex ones. In addition to it, all games should be fairly similar to get comparable results. For this study two games of the genre 'role-playing game' (RPG) were chosen. This genre was selected because most of the games considered in the genre contain many complex game mechanics (for example fighting, character development systems, skill systems) for which a tutorial might be advantageous. The two games selected for this study are *Risen* and *Divinity: Original Sin - Enhanced Edition (DOS:EE)*.

- *Risen*¹ is a game developed by *Piranha Bytes* and published by *Deep Silver* in 2009.
- *Divinity: Original Sin - Enhanced Edition*² is a game developed and published by *Larian Studios* in 2015 and is an overhaul over the original game *Divinity: Original Sin* published in 2014.

These games were chosen because they both belong to the RPG genre but differ in the implementation of the tutorial guidelines mentioned, leading to a good comparison in how important the guidelines are for players. In more detail, the differences are as following:

¹<http://store.steampowered.com/app/40300/>

²<http://www.divinityoriginalsin-enhanced.com/>

- *DOS:EE* has an in-game help available, *Risen* has no such help (guideline 11).
- There are some skills in *Risen* which are not explained properly (like moving or blocking/attacking), where in *DOS:EE* all skills are explained (guideline 5).
- In *DOS:EE* all hints are given in a context sensitive way. The same does not apply for *Risen* (guideline 4).
- In *Risen* the player gets penalised for the same mistakes, especially in fights where it is easy to die if mistakes are made (with no feedback provided), in *DOS:EE* it is hard to find such harsh passages in the tutorial section (guideline 14).

3.4 Selection of players for the study

To get the best results for different type of players (e.g. with different experience) the study was done with multiple participants with different backgrounds in regard to gaming.

One important criteria was how proficient the subjects felt with computers and computer games to figure out how experienced they are with games. This is mainly important, because depending on their previous knowledge they might rate the tutorial vastly different. An experienced player for example might know and assume that running is being done by pressing the **W**, **A**, **S** and **D** keys, as it is done in many similar games. This might prove difficult for a non-experienced player though, as a player who doesn't know about this standard and isn't told this in the beginning might not easily find out how to perform such a basic action.

3 Method



(a) Risen



(b) Divinity: Original Sin - Enhanced Edition

Figure 3.1: Examples of tutorial messages in selected games

4 Analysis and discussion of study results

This section discusses the results of the study in regard to the different guidelines. For the raw results see chapter 6.

4.1 Players should not have to read a manual (Guideline 1)

Both games do not have a manual, so I can not make a definite statement regarding this point. But based on the critique of some players about the amount of text they had to read in the game *DOS:EE* and the refusal of one player to use the in-game help for solving a basic mechanical problem in the same game, because 'that is too much text, I don't want to read so much', it is safe to assume, that players in general don't like to read a lot before they want to play a game and a separate manual would be counter-intuitive to that.

4.2 Get the players involved quickly and grab his attention early (Guideline 2)

In both games, the introduction never lasted longer than four minutes, while it was about one to one and a half minutes longer in *DOS:EE* before the first player action. Except one player, all players felt involved quickly in both games played, so based on these results I can't make a statement regarding this usability guideline.

4.3 The game should provide a tutorial for teaching the players how to play (Guideline 3)

Because both of the games in this study do include tutorials, it is hard to make a statement regarding the general importance of providing a tutorial.

Interestingly one player managed to miss the tutorial in *Risen* though, because he didn't talk to the first encountered NPC, who provides the tutorial and guides the player through the first part of the game. Because of this the player encountered a general lack of direction and missed explanations to some essential game mechanics. This resulted in frustration, because on one hand the player didn't know how to operate the game (for example open the inventory) and on the other hand had no idea on where to go or what to do next. This one example alone of course is not enough evidence to make a statement, but it shows that providing a tutorial might be beneficial in many ways to reduce player frustration at the beginning of a game.

4.4 The game should give an appropriate amount of hints in a context sensitive way (Guideline 4)

In *Risen* not all mechanics are explained, with no hints given in a context sensitive way. This was frustrating to most players, especially those without prior experience of playing computer games and no knowledge of common standards of the mechanics in similar games (for example running with **W**, **A**, **S** and **D**, jumping with **SPACE** etc.). Even basic actions such as moving the camera by moving the mouse are not explained and one player only discovered this by accident.

Special mention deserves one occurrence in which one player encountered the first enemy and a tutorial message teaching him how to block enemy attacks (right click on the mouse). Only after blocking the enemy for about half a minute the next message appeared teaching the player how to attack the enemy with the equipped weapon (left click on the mouse). This was especially frustrating for the player, because he was confused as to what he was doing wrong because he could do no damage to the enemy. Thus, he was unable to defeat the enemy for a while until the game told him how to actually attack.

4.5 Teach skills early that are expected to be used later, or right before they are needed the first time (Guideline 5)

This point follows up on the one above where I talked about appropriate amounts of context sensitive hints given. Again here the part about the not appropriately placed tutorial message regarding how to attack, which led to frustration for one player can be addressed and is relevant. Also, even more than for the last point here, it is relevant that a lot of basic mechanics are not explained in *Risen* (moving the camera by moving the mouse, move by pressing **W**, **A**, **S** and **D**, jump by pressing **SPACE**).

Worth mentioning is that the attacks of certain enemies in the game are not blockable. The game though only teaches how to block, which works for some enemies, but not all. Several players were confused and frustrated by the fact, that this blocking did not work for those enemies and tried to find their mistake while trying to block, when they did not make any mistake, but the game didn't tell them. This shows how important it seems to be that the game teaches all the essential skills early on and before they are expected to be used for the first time by the player.

4.6 Follow the trends set by the gaming community to meet the player's expectation and thereby shorten the learning curve (Guideline 6)

In general the more experienced players had fewer problems playing the games and managed to get further into the game or solve task faster than the not experienced players. This suggests that because they already played similar games and the mechanics are equal, they don't need to focus as much on those parts and can get into the game with fewer obstacles to overcome, therefore the following of trends set by the gaming community helps them to orientate themselves in an unknown game environment.

Special mention here again deserves the blocking mechanic in *Risen*. It differs from the genre standard, where it is not common that certain enemies are blockable and others are not. This exception is not explained, so even the experienced players had problems with the fighting and were frustrated, because they assumed they themselves were doing something wrong. This shows that it is important, especially when mechanics differ from the trends in the gaming community, to explain these to the player to avoid frustration.

4.7 Present overriding goals early and clearly (Guideline 7)

For *Risen* two players stated they knew what the goal of the game was, or at least what their next step in the story would be after playing the tutorial. In the case of *DOS:EE* four players stated they knew it. For *Risen* only one player was right in his assumption, in *DOS:EE* all four players reported that they knew the goal of the game.

Two of the players, which were the more experienced players, who knew the goal in *DOS:EE* and didn't know the goal in *Risen* also stated that having a given direction or a clear path provided by the game was part of the reason why they liked *DOS:EE* better than *Risen*.

It seems that especially for more experienced players, who don't have to pay as much attention to the mechanics, story wise having a goal or direction provided by the game is beneficial for a positive experience.

4.8 Provide challenges at an appropriate pace to not frustrate the players (Guideline 8)

To illustrate this point a good example is to compare the fighting system and especially the first few fights the player has to master in each game. In *Risen* the player, after finding his first weapon, has to defeat several enemies in a row, some of which unexplainable can't be blocked, before the story and the tutorial moves on to the next part. This is very frustrating for most players and some players even didn't manage to beat this part because they died to the same monsters over and over without any improvement on their techniques or any help provided by the game.

In *DOS:EE* on the other hand, the first fight encountered in game was won by every player without dying once. This is because it is meant to teach the player the fighting mechanics and give the player room to experiment without frustrating him by being too hard to beat. Some players who expressed the fighting mechanics were hard to understand and thought they were doing bad were positively reinforced when they still managed to win this first fight and be victorious.

This shows that it is more important to reinforce a player positively and not to punish him for every mistake he makes while he is still learning to play the game. Being punished too heavily results in frustration, while letting the player experiment with new mechanics is helping him to better understand and being more motivated to overcome obstacles and continue to play the game.

4.9 Players should not be distracted from the tasks that they want or need to concentrate on (Guideline 9)

During the study it was shown, that there is a need to differentiate between two kinds of distractions.

In *Risen* most players were distracted by the game mechanics and figuring out how they work, because the game didn't explain them properly in some cases. An example would be how the game explains how to equip a weapon. The tutorial message says 'Take it out of your bag and put it on your back'. The player is supposed to click the weapon icon in the inventory, which then automatically appears on the characters back. Some less experienced players understood this too literally and tried to grab the weapon icon and drag it out of the inventory onto the characters back in the game world. This didn't work so they were confused, tried it again several times more and then clicked onto the icon in different ways until they saw that by accident they managed to equip the weapon, multiple unnoticed equips and unequips were involved. These kinds of distractions are frustrating for the player and should be avoided.

In contrast to that, there are a lot of distractions of another kind in *DOS:EE*. These distractions are part of game world, which can be explored by the player. There are for example a lot of crates and vases, which can be opened and sometimes contain items for the player to find, or critters running around on the ground, which can be interacted with. These are distractions from the task the player is supposed to fulfill, but in most cases don't annoy or frustrate the player. In some cases the player even enjoyed exploring for a bit before moving on with the task at hand, and stated this as one of the reasons why he liked this game better than *Risen*.

Thus, it can be concluded that these optional, exploration encouraging distractions might be beneficial for a positive experience for the player. They are not mandatory and can be ignored if the player doesn't wish to pursue them, but can be useful for some players to enhance their enjoyment by providing additional content and exploration.

4.10 Learning the game and mastering challenges should be fun and positive game experiences (Guideline 10)

If we look at the results from the study, we can see that the players always prefer the game they rated higher according to the question 'How fun do you rate the game/tutorial?'. Although there might be other aspects (for example the players might rate the fun higher for games which better fits their personal taste in general), it indicates that fun is an important aspect for the player.

4.11 Games should include online help so players don't need to exit the game (Guideline 11)

It is hard to make definite statements about this guideline, considering the short playtime in the study. The online help would most likely come in handy once a larger amount of time has passed and players start to forget some rarely used mechanics.

However, there is online help available in *DOS:EE* and one player had accidentally skipped one of the tutorial messages (on how to open the inventory). Instead of reading he decided that it was 'too much text' and tried different actions by himself without the desired result. After trying this for a while he opened the online help. This indicates that only having an online help is not always useful, it has to be presented in a way that is appealing to the players.

4.12 Controls should be mapped consistently, easy to learn and use yet expandable for advanced options (Guideline 12)

All controls were mapped consistently in both games, so no statement could be made about this guideline.

4.13 Players should be rewarded appropriately for their effort and skill development (Guideline 13)

There was a huge difference in the rewards handed out by the games. In *Risen* only two of the players and in *DOS:EE* five of the players felt rewarded appropriately. However, in both games almost every player said that the lack of rewards was not problematic to them. Based on this, it was not possible for me to find support for this guideline through my study.

4.14 Players should be supported in recovering from errors and should not be penalised repetitively for the same failure (Guideline 14)

In *Risen* it was hard for the players to recover from errors made while fighting. Five out of six players managed to die on the first few enemies, causing frustration. Because there was no feedback on the mistakes they made (for example the blocking problem mentioned earlier), there was no chance of correcting these mistakes, resulting in even more frustration. Two out of the players (the ones without a lot of gaming experience) didn't even manage to beat all enemies, causing them to be stuck in the first area.

In contrast to this, the first battle in *DOS:EE* can be won by players even if they are making tremendous mistakes. Even further in the tutorial it was easy for players to identify their mistakes (for example losing health entering a burning area) and to correct their behaviour (e.g. by extinguishing the fire and not running into such areas later) leaving the player with positive experiences.

Through the difference in the two games one can conclude that this theory is correct and player should have the ability to recover from their problems without getting penalised repetitively.

4.15 Players should receive feedback on progress toward their goals (Guideline 15)

In both games early feedback was provided to the players about their progress, so no definite statement can be made here.

Again here the case of one player missing the tutorial NPC should be mentioned, because that player didn't receive any feedback on his goals. This resulted in frustration for the player, because of a lack of direction.

This is of course not enough evidence to make a definite statement, but can be used as an example to show that receiving feedback, especially on short term goals in the game can be beneficial for the enjoyment of a game.

4.16 The first player action is painfully obvious and should result in immediate positive feedback (Guideline 16)

In both games the first player action (*Risen*: Collecting a coin from the ground, *DOS:EE*: Moving the characters) are obvious, and no player had any problems performing them. Therefore, no statement can be made about this point.

4.17 Additional findings

Interesting to mention is, that in *Risen* the tutorial is heavily integrated into the first part of the game and storyline. The player is supposed to talk to a crucial NPC very early into the game, who provides the tutorial. If he manages to miss this NPC, as it happened in one case in the study, he is faced with many difficulties and a general lack of direction and explanation.

In *DOS:EE* on the other hand, the tutorial is for the most part provided as a designated area, specially called 'Tutorial Dungeon', in which the player learns most of the essential game mechanics. This area is completely optional and players are given the choice to walk past it, but in this case the game notifies the player of the existence of that area, so the player can not accidentally miss it.

This is arguably the better approach, because on one hand the tutorial is optional, so players who are very experienced and don't feel the need to learn the game have the option to skip it. On the other hand, the tutorial can not be missed as mentioned above, so they don't miss the tutorial and might face problems later when they may not know some mechanics. Altogether I think this way of providing a tutorial is beneficial to all different kinds of players and should be adapted into more games in the future which can result in a positive experience for players, as Pagulayan et al. [Pagulayan et al., 2007] have already suggested.

5 Conclusion

This thesis shows that most of the guidelines mentioned in section 2.2 could either be verified (guidelines 4, 5, 6, 7, 8, 10, 14) or could not be tested in the study (guidelines 1, 2, 3, 11, 12, 15, 16). Some guidelines could benefit from some further elaboration.

One of this is guideline 13, which states that players should be rewarded appropriately for their effort / skill. Although this seems to be a good guideline in general, almost every player said that not receiving an appropriate reward was not a problem for them. In this case I would suggest that more research is necessary in order to determine what is considered to be an appropriate reward and how important these rewards are for players.

Another important point to discuss is guideline 9, which states that players should not be distracted from tasks. This guideline needs more distinction between different kinds of distraction, as the study has shown that there are at least two different kinds of distraction for players: 'distractions by game mechanics' and 'distraction by interesting game elements'. While the first one was almost always perceived as frustrating, player enjoyment could benefit from the second kind of distraction. More research has to be done to qualify the effect of these different types of distractions.

The study has also shown some points which were not discussed in literature before: The question about skippable tutorials and tutorials which can be missed accidentally. This is based on one occurrence during the study, in which a player accidentally missed the tutorial NPC in the game *Risen*. This shows that tutorials should be done in a way that players can not miss them by accident. Furthermore, research should be done regarding the potential benefit of skippable tutorials.

5 Conclusion

Although this work presents a first insight into possible guidelines for computer game tutorials, further research has to be done. This might include supplementary studies with more participants as well as studies which focus on exactly one of the guidelines presented here.

6 Appendix: Study results

	Player 1	Player 2	Player 3	Player 4	Player 5	Player 6
Player Info						
Gender	male	male	female	male	male	male
Age	24	35	49	20	60	30
How proficient do you feel with computers and technology in general? (1-10)	10	9	4	3	8	10
How proficient do you feel with computer games and games in general? (1-10)	10	9	1	5	5	10
Game 1 (Risen)						
Observation						
How long until the first player action?	02:22	02:20	02:15	02:23	02:14	02:14
How often is the player rewarded? (x times)	1	1	-	2	-	2
How often is the player distracted? (x times)	3	6	3	6	6	4
-> Are distractions a problem for the player?	3	4	3	4	5	3
How frustrated/confused does the player seem? (1-10)	10	9	10	8	10	9
Questions						
Did you feel frustrated?	yes	yes	no	no	no	yes
-> If yes, how much? (1-10)	4	8	-	-	-	6
-> If yes, what frustrated you?	lack of direction	mechanics are not explained, fightsystem is bad and not explained, hotkeys are not explained	-	-	-	a few mechanics are not explained (e.g. fightsystem)
Did you feel involved quickly?	yes	yes	yes	yes	yes	yes
-> If no, is that a problem?	-	-	-	-	-	-
Did you feel properly supported by hints?	no	story yes, mechanics no	yes	no	no	no
-> If no, how problematic is that? (1-10)	7	8	-	5	4	5
Did you feel appropriately rewarded by the game?	no	yes	no	yes	no	no
-> If no, is that a problem?	no	-	yes	-	no	no
Do you know what the goal of the game is?	no	no	no	yes	yes	no
-> If yes, what is it?	-	-	-	defeat the Inquisition army	fight against the monsters from the intro and save humanity	-
-> If no, is that a problem?	yes	not yet	yes	-	-	no
How fun do you rate the game/tutorial? (1-10)	3	1	6	5	7	4
(Experienced Players) Are the game mechanics different from the genre standard?	no	yes	-	-	-	no
-> If yes, what is different?	-	fighting mechanics	-	-	-	-
-> If yes, is that a problem?	-	yes, because they are not explained	-	-	-	-

Table 6.1: Study results 1

6 Appendix: Study results

Game 2 (DOS:EE)							
Observation							
	How long until the first player action?	03:58	03:30	03:40	03:42	03:57	03:33
	How often is the player rewarded? (x times)	3	1	1	4	3	2
	How often is the player distracted? (x times)	2	5	4	4	6	2
	-> How often are distractions a problem for the player? (x times)	1	1	3	2	3	-
	How frustrated/confused does the player seem? (1-10)	2	3	7	4	5	2
Questions							
	Did you feel frustrated?	no	yes	yes	no	no	no
	-> If yes, how much? (1-10)	-	3	5	-	-	-
	-> If yes, what frustrated you?	-	always having to click "ok" on the tutorial message before being able to execute the described action	too extensive, too many informations at once	-	-	-
	Did you feel involved quickly?	yes	yes	no	yes	yes	yes
	-> If no, is that a problem?	-	-	yes	-	-	-
	Did you feel properly supported by hints?	yes	no	no	yes	yes	yes
	-> If no, how problematic is that? (1-10)	-	6	8	-	-	-
	Did you feel appropriately rewarded by the game?	yes	yes	yes	no	yes	yes
	-> If no, is that a problem?	-	-	-	no	-	-
	Do you know what the goal of the game is?	yes	yes	no	no	yes	yes
	-> If yes, what is it?	find/kill the Source Hunters, first investigate the murder case	go into the city and investigate the murder of Jake, something with orcs and undead	-	-	Source Hunters are evil, fight against them	go into the city and investigate the murder case
	-> If no, is that a problem?	-	-	yes	no	-	-
	How fun do you rate the game/tutorial? (1-10)	7	4	4	6	9	8
	(Experienced Players) Are the game mechanics different from the genre standard?	no	no, but more mechanics	-	-	-	-
	-> If yes, what is different?	-	more mechanics than standard	-	-	-	-
	-> If yes, is that a problem?	-	no	-	-	-	-
	Which game do you like better?	DOS:EE	DOS:EE	Risen	DOS:EE	DOS:EE	DOS:EE
	What is your reason for that?	there is a given direction, the game gives you an idea on what to do	more atmospheric, clearer path to follow, mechanics are explained context sensitiv, interaction of the characters is more interesting, you are given the feeling of being able to make decisions	easier, less complex in general	there is more assistance by the game, mechanics are explained better	more exploring, less fighting, more different mechanics in general	more humor, more complex, but given more hints (which is appropriate for the complexity of the game)
	First game played	Risen	DOS:EE	Risen	DOS:EE	Risen	DOS:EE

Table 6.2: Study results 2

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Ort, Datum

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