



Creating a Video Game Tutorial

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Opinnäytetyön aiheena oli videopelien tutoriaalit. Tarkoituksena oli tutkia, miksi tutoriaali on tärkeä ja miten luodaan hyvä tutoriaali. Lisäksi työssä parannettiin olemassaolevan pelin tutoriaalia.

Aluksi työssä selvitettiin, mikä tutoriaali on ja millaisia tutoriaaleja on olemassa. Sitten selvitettiin, mikä merkitys tutoriaaleilla on käyttäjälle. Seuraavaksi luotiin lista säännöistä, joita kannattaa seurata tutoriaalin luonnissa. Sääntöjen laatimisessa hyödynnettiin kahta esimerkkipeliä, ja selvitettiin, kuinka tarkasti ne seuraavat näitä sääntöjä. Viimeisessä luvussa parannettiin opinnäytetyön tekijän kehittämän pelin tutoriaalia seuraten näitä sääntöjä.

Tutoriaali on tärkeä osa videopeliä, mutta aina ei ole selvää, miten siitä tehdään hauska ja opettava. Opinnäytetyöstä selviääkin, että jokainen peli tarvitsee erilaisen tutoriaalin, vaikkakin erilaisten tutoriaalinen luonnissa voi hyödyntää niille yhteisiä lainalaisuuksia.

ABSTRACT

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The purpose of the thesis was to examine video game tutorials and find out why they are so important and how to create a good tutorial. Additionally, the information gathered was used to improve an existing tutorial.

The thesis begins with the basics on what a tutorial is and what different kinds of tutorials exist. The next part covers a list of rules that should be followed when creating a tutorial. Two games were used as examples in creating the list and are reviewed based on how well they follow the rules. The last section goes over a game created by the author and how it was improved following the rules.

The tutorial is an important part of a video game but it's not always clear how to make it both entertaining and useful. This thesis states that while every game needs a different kind of tutorial, there are common elements that can be used to create various tutorials.

Key words: video game, tutorial

SISÄLLYS

1	INTRODUCTION	6
2	WHY DO YOU NEED A GOOD TUTORIAL?	7
3	WHAT MAKES A "GOOD" TUTORIAL?	8
	3.1. Implicit or explicit?	8
	3.2. Simple rules	8
	3.2.1 Blends in to the game	8
	3.2.2 Use minimal text	9
	3.2.3 Make the player play	9
	3.2.4 Don't infodump	9
	3.2.5 Get the player hooked	10
4	EXAMPLES	11
	4.1. Half-Life 2	11
	4.1.1 Blends in to the game	11
	4.1.2 Use minimal text	12
	4.1.3 Make the player play	14
	4.1.4 Don't infodump	15
	4.1.5 Get the player hooked	15
	4.2. Doom Eternal	16
	4.2.1 Blends in to the game	16
	4.2.2 Use Minimal Text	18
	4.2.3 Make the player play	19
	4.2.4 Don't infodump	19
	4.2.5 Get the player hooked	20
5	CREATING A TUTORIAL	21
	5.1. Existing tutorial	21
	5.2. How are the mechanics introduced to the player	21
	5.2.1 Movement	21
	5.2.2 Gems	22
	5.2.3 Boulders	22
	5.2.4 Enemies	22
	5.3. How to improve the tutorial	23
	5.4. How well does the new tutorial follow the rules?	24
	Don't infodump	24
	Get the player hooked	24
6	CONCLUSION	25
	LÄHTEET	26

1 INTRODUCTION

A tutorial is any part of the game that teaches the player something about the game. Often games have a "tutorial level", which is a level filled with smaller tutorials. Some games integrate the tutorials into the game while other have them separate. Most games with a story mode have the first few levels serve as tutorial levels while also introducing the story / characters, while multiplayer games often have separate short tutorial sections. Games can also have a mix of these two. In addition to teaching the player, a tutorial is often the player's first impression of the game. This means that creating a good tutorial is important for almost any game (Wikipedia 2023).

The objective of this thesis is to find out what makes a tutorial good. I will be examining three games, which have tutorials that I personally consider to be good/ok/bad. I will then try to apply these thing and create a "good" tutorial for a game i helped make for a school project. However, it's important to remember that games are art/entertainment and thus highly subjective.

2 WHY DO YOU NEED A GOOD TUTORIAL?

A poor tutorial will leave the player confused about the core mechanics of the game. This will prevent them from having the experience that you intended and quickly making them bored or irritated. The player should feel like they are fighting the enemies in your game and not the game itself.

(Schwerin, 2021) puts it well:

The systems that power smooth, satisfying gameplay are largely invisible. Only misfires announce themselves. When you're saving the world from zombies or Reapers or Nazis—when duty calls—you don't have time for a clunky mechanic or a stuttering frame rate. To paraphrase Lieutenant Aldo Raine, Brad Pitt's character in *Inglourious Basterds*, you're not in the troubleshooting business. You're in the killing Nazis business.

Even problems rooted in your own ignorance, like not knowing how to open doors or change items, are enough to shatter the delicate illusion of modern gameplay. These squeaky wheels hijack the grease of our conscious thought, and they often ruin our experience in the process.

Teaching the player is not the only thing a good tutorial has to do. It also has to be entertaining. If the player finds the tutorial to be boring or annoying they might want to skip it, greatly reducing its effectiveness. As I stated earlier, the tutorial is usually a player's first impression of the game, and if they find it boring they are less likely to enjoy the rest of the game. This is a common problem in video games, I have played countless games where a boring tutorial has negatively affected my enjoyment, even if the rest of the game is good.

Creating a balance between teaching and entertaining the player can be difficult.

3 WHAT MAKES A "GOOD" TUTORIAL?

3.1. Implicit or explicit?

An explicit tutorial prioritizes providing information over maintaining immersion. Whereas an implicit tutorial prioritizes immersion.

Here is the conclusion of a pilot study on implicit tutorials (Cao & Liu, 2022)

In general, although implicit tutorials are less helpful to players and inefficient in teaching non-expert players to learn complex game mechanics, they can still improve players' enjoyment inside the tutorial section and will not significantly impair their game experience in the non-tutorial parts. This study also indicated that skilled players' learning of complex mechanics is less influenced by the tutorial's implicitness, but the implicit guidance can still affect their in-tutorial enjoyment and understanding of simple mechanics.

Implicit tutorials are more enjoyable and still helpful, even if they are less effective. In my personal experience I have found implicit tutorials to be much better. It's much easier to overlook a mechanic that wasn't perfectly explained if I'm enjoying the game. For this reason, I will focus on more implicit tutorials.

3.2. Simple rules

So how do you make your tutorial good? I have gathered a list of simple rules to follow. This list is mostly based on the works of (School of game design, n.d; Calender Stephen, 2017)

3.2.1 Blends in to the game

A tutorial should not feel like an isolated part of the game that is there just because it has to, it should blend into the rest of the game. It should match the feel and pacing of the rest of the game. As stated earlier, many multiplayer games have separate tutorial sections, but this does not mean the tutorial has to feel like

a separate entity. Examples of this are things like creating UI elements (fonts, icons, etc.) that match the look of the game, an in-universe reason why the player character is going through a tutorial, etc. How exactly this is done and to what extent depends on the game.

3.2.2 Use minimal text

Text is usually a bad way to teach players. It interrupts the flow of gameplay and if the text is too long most players either skip it or do not remember most of it. Another way to guide the player is to use visual cues. Using things like lighting, bright colors or the level geometry is less obtrusive to the player.

3.2.3 Make the player play

An excellent way to teach a mechanic is to make the player use it. This makes for a much more interesting and engaging experience for the player, and it also gives them a good feel for what they are expected to do. Rewarding the player for doing the correct thing is an important part of this process, especially if the game is more open ended. This ensures that the player has understood the mechanic and reduces the chance of the player getting frustrated and lets you expand on that mechanic later in the game.

3.2.4 Don't infodump

If you try to teach the player too many things too quickly, they are likely to be overwhelmed with information and forget most of those things. Start with teaching the player the core mechanics of the game. These are the most important parts that the player absolutely needs to understand to enjoy the game. After introducing a new mechanic, let the player play with around with it for a little bit before introducing a new one. This lets the player get comfortable with it and hopefully start using it without thinking about it. Slowly introducing new elements also helps keep the player interested in the game and not get bored.

3.2.5 Get the player hooked

Arguably the most important job of a tutorial is to get the player hooked on the game. It doesn't really matter if the tutorial does a good job of teaching the mechanics to the player, if it fails to get the player interested in actually playing. Teaching mechanics is important but it should be done in order to make the experience enjoyable, not just because it "has to be done". This also applies to things like the visuals, story and setting of the game. Just putting all of your efforts in to the tutorial is probably not a good idea, the "good stuff" should be distributed evenly across the game, but giving the player a taste in order to get them hooked should be your goal.

To put it simply, a tutorial is not the answer to "how do I play this game?". It's the answer to "Why would I play this game?".

4 EXAMPLES

In order to better demonstrate the rules mentioned above, I will use Half-Life 2 and Doom Eternal to give examples. In my opinion, Half-Life 2 has a great tutorial, while Doom Eternal's tutorial has quite a few faults.

4.1. Half-Life 2

Half-Life 2 is a 2004 first-person shooter (FPS) game developed and published by Valve Corporation. It was published for Windows on Valve's digital distribution service, Steam. Like the original Half-Life (1998), Half-Life 2 combines shooting, puzzles and storytelling, and adds features such as vehicles and physics-based gameplay (Wikipedia 2023).

4.1.1 Blends in to the game

Half-Life 2's first few level serve as the games tutorial. The player is introduced to the story and mechanics simultaneously. Gordon (the player character) has been in stasis for years. This is the in-universe reason why Gordon (the player) is out of the loop on almost everything (Image 1).



Image 1. Introduction (Samu Lehtineva 2023)

4.1.2 Use minimal text

The only real “tutorial” text is a text box in the bottom right corner of the screen telling the player what button to press. The player is guided mostly by visuals and dialog. In image 2 you can see an example of this. The player must climb out of the window. The game tells the player how to pickup objects, the rest is figured out through context.

Another example of this is image 3. In this part the player is introduced to a new enemy called a barnacle. They stick to the ceiling and grab anything that comes under them. The player sees it catch a bird and eat it. This teaches the player all they need to know without any text or dialog.

This is made easier by the fact that Half-Life 2’s mechanics are pretty simple. In a game with more complexity, this is harder to achieve.



Image 2. Window (Samu Lehtineva 2023)



Image 3. Barnacle (Samu Lehtineva 2023)

4.1.3 Make the player play

Soon after encountering the barnacle (image 3), the player enters a room full of barnacles. In the room there is also a couple of explosive barrels. The player must throw the barrels under the barnacles, which will grab them and let the player easily kill them with little risk to themselves (image 4).

This short sequence lets the player confirm how the enemy functions and interacts with other mechanics. Even though this “puzzle” is very obvious, because the player is in control, it better gives them the feeling that they understand how the enemy works.



Image 4. Barrels (Samu Lehtineva)

4.1.4 Don't infodump

Whenever a new mechanic is introduced, the player is given at least 1 level to familiarize themselves with it before a new mechanic introduced. Vehicles are introduced in chapter 4, while chapter 5 is almost entirely relegated to showcasing the iconic gravity gun.

4.1.5 Get the player hooked

The introductory levels give an excellent first impression of the game. A linear story driven game with interesting characters, varied locations and simple but well utilized mechanics. The constantly evolving level design and well spaced out introduction of new mechanics keeps the player invested the entire way.

4.2. Doom Eternal

Doom Eternal is a first-person shooter game developed by id Software and published by Bethesda Softworks. The sequel to Doom (2016), and the seventh game in the Doom series (Wikipedia 2023).

4.2.1 Blends in to the game

Just like in Half-Life 2, Doom Eternal first few levels act as the games tutorial. Introducing both the story and gameplay mechanics. The reason why Doomguy (the player) doesn't have the weapons and skills from the last game isn't really explained.

One of the ways the game communicates tutorial information to the player is pop-up windows that freeze the game while the player reads them. (Image 5)

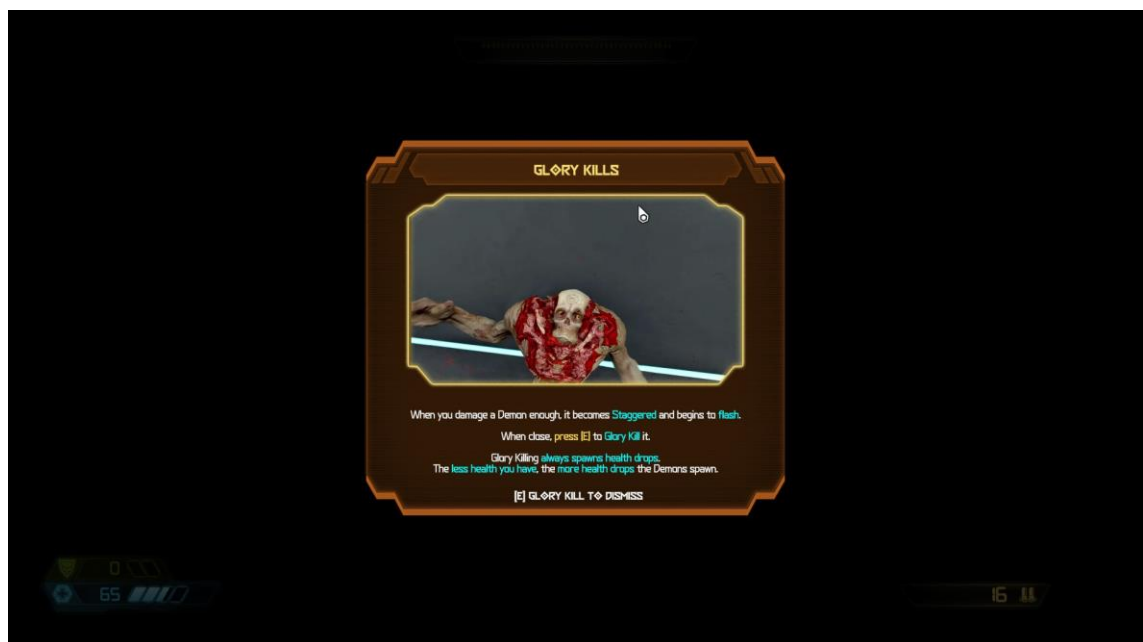


Image 5. Pop-up (Samu Lehtineva 2023)

Sometimes the player is sent to a “tutorial room” that is not connected to the rest of the game. (Image 6)



Image 6. Room (Samu Lehtineva 2023)

Both of these methods disrupt the flow of the gameplay pretty badly. Especially when the game's main selling point is fast paced action.

4.2.2 Use Minimal Text

As mentioned earlier, the game makes liberal use of pop-up windows that include an image and some text (Image 5), the first level alone contains over 10 of these. While a single one doesn't have that much text, they are frequent enough to become annoying.

The worst offender of this in my opinion is the “enemy weak point” mechanic. In this game some enemies have a weak point that can be destroyed, making them weaker. Teaching this mechanic through an in-game event, like the the barnacles in Half-Life 2 (Image 3), and then letting the player figure it out on their own would have been a great way to make the player feel smart. But instead , the game tells you the enemy's weak point when you first encounter them. (Image 7)



Image 7. Weak point (Samu Lehtineva 2023)

There are some sections where the game does this well.

In this section the player is introduced to these yellow poles, the player can jump at them to swing off of them and gain more distance with a jump. This mechanic is introduced with no text, the player is guided by armor pickups that lead them to the pole. (Image 8)



Image 8. Pole (Samu Lehtineva 2023)

4.2.3 Make the player play

This part Doom Eternal does pretty well. For example, after the the player is told the Arachnotron's weak point (Image 7), the player has to fight against one of them. This fight show pretty well that if you don't destroy the weak point, the enemy is much harder to defeat.

4.2.4 Don't infodump

A lot of mechanics are introduced in the first few levels, and while none of the mechanics are that complicated, it's a lot of information to absorb so early in the game. Not everything is shown that early in the game, there are enough new things introduced throughout the game to keep things interesting, but in my opinion some mechanics could have been introduced a bit later on to keep the experience smoother.

4.2.5 Get the player hooked

This is another part that I think Doom Eternal does pretty well. The first level shows exactly what the game is about. Fast paced combat that forces the player to manage their ammo and quickly identify the right weapon for the situation, great music and lots of blood.

In my case the gameplay was fun enough that I was able to bear through the annoying tutorial sections. I think this game is a good showcase of the fact that the only thing that really matters in a game is if the player is having fun. Having a tutorial to teach mechanics is usually important for the players enjoyment, but it should not come at the cost of fun.

5 CREATING A TUTORIAL

Now that I have established what makes a “good” tutorial, it’s time to apply these things. For this part I will be using a game I helped develop, called Pyramid Dash. It’s heavily inspired by an old game called Boulder Dash.

5.1. Existing tutorial

I will go over the games mechanics and how the current tutorial introduces them to the player. Image 9 shows the tutorial level.

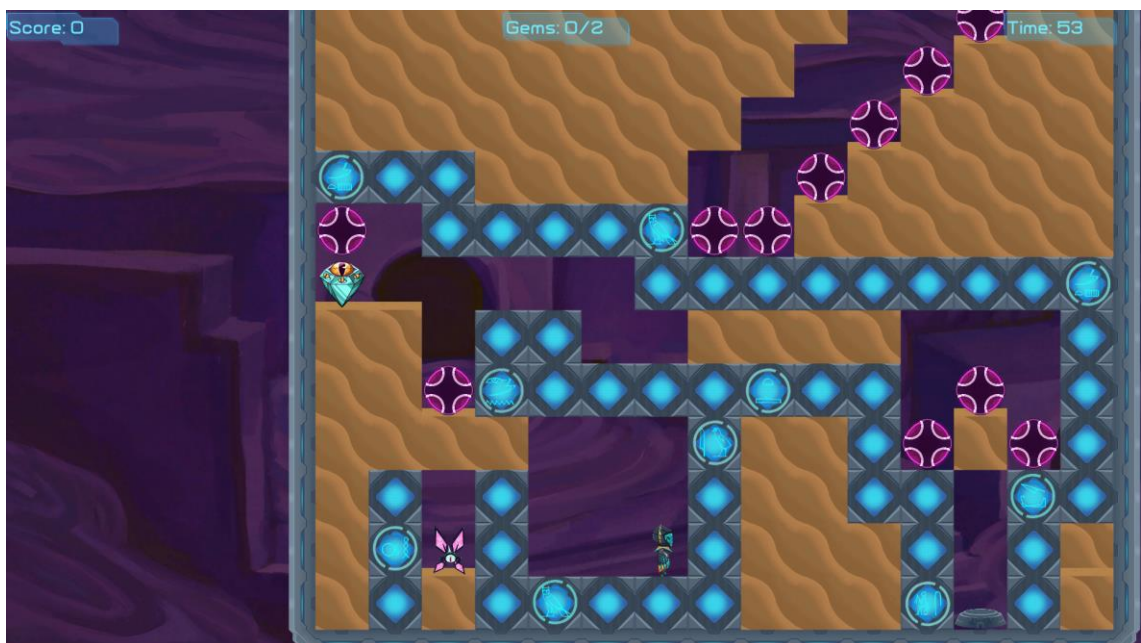


Image 9. Pyramid dash tutorial (Samu Lehtineva 2023)

5.2. How are the mechanics introduced to the player

5.2.1 Movement

The player can move in any direction and is not affected by gravity. The player can move through sand, destroying it.

The only buttons the player uses are W, A, S, D. But these aren't shown to the player in any way. Even if most people can easily figure these out it's important to clarify them. This could be done with simple text on screen, but a possibly better way would be to add sand blocks with the button on them next to the player. This would convey the necessary information without breaking immersion.

5.2.2 Gems

The players goal is to collect a certain amount of gems and then move to the exit before the timer runs out. Collecting additional gems increases your score which is just for showing off.

The amount of gems the player has to collect is always shown at the top of the screen, the gems also look like typical video game collectibles.

Placing one gem right in the players path might be a good idea.

5.2.3 Boulders

Boulders can block the players path. They can be pushed and will fall if there is no sand beneath them. Getting crushed by a falling boulder leads to a game over.

The first few boulders are very unlikely to crush the player and if they do, the level is short enough to not be frustrating. There is also a boulder blocking the exit that the player has to push out of the way.

Adding a pushable boulder to the very start might be a good idea to let the player try the mechanic more.

5.2.4 Enemies

There are 2 types of enemies, flying ones that follow the player and ones that simply roll forward until they hit a wall. Enemies cant dig through sand but are usually located close to gems, so the players has to be vary of them. Crushing an enemy with a boulder will create a gem.

The tutorial only introduces the enemy that follows the player. Using the rolling enemy might be a better idea as it is less dangerous. The flying ones don't need to be introduced yet and can be saved for later in the game.

The player is also forced to crush the enemy with a boulder to proceed, which demonstrates the mechanic pretty well.

5.3. How to improve the tutorial

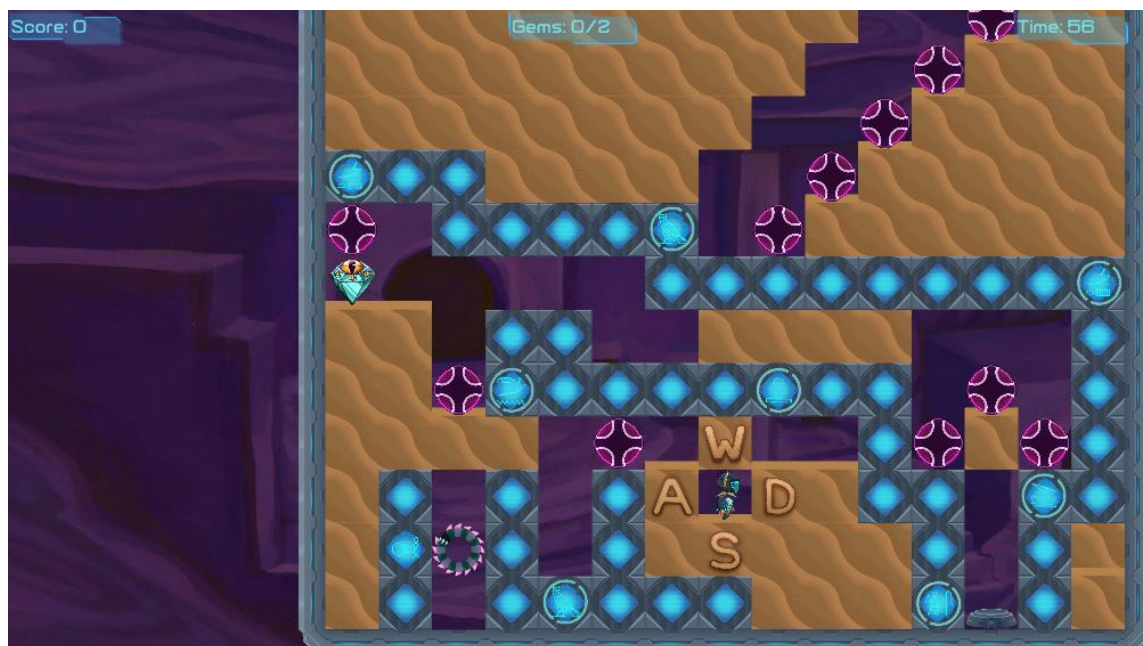


Image 10. New tutorial (Samu Lehtineva 2024)

I made some small changes to improve the tutorial.

I added sand tiles with the movement keys on them to convey the controls without breaking immersion. I added a boulder to the start to let the player safely try out the mechanic. I changed the enemy to a rolling type, as it is more predictable. Finally I added more more time to complete the level, as feeling that you need to rush through a tutorial is not a good thing.

5.4. How well does the new tutorial follow the rules?

Finally I will be evaluating how well the new tutorial follows the simple rules discussed earlier.

Blends in to the game

The tutorial plays like any other level and never breaks immersion. The game doesn't place much emphasis on the story so this is pretty easy to do.

Use minimal text

The tutorial doesn't use any UI text, the controls are shown through in-game visuals. (see image 10)

Make the player play

The level forces the player to interact with the game's main two mechanics, digging and boulders, which gives them a pretty good idea of how they work.

Don't infodump

The game is overall very simple, and the information presented in the tutorial is very manageable.

Get the player hooked

The "point" of the game is navigating a changing level under a time limit, which the tutorial showcases. The level is pretty easy, but it lets the player try out the basic mechanics and shows off the gameplay loop.

6 CONCLUSION

The most important thing I learned from this was the fact that the tutorial is supposed to teach the player how to enjoy the game. In my experience this is surprisingly easy to forget when creating a tutorial. Many of the things mentioned in this thesis are kind of self evident but make more sense when written down and analyzed.

Going through the tutorial of Half-Life 2 and seeing how subtle and simple it is, was interesting. Obviously, the game is mechanically quite simple, but it shows clearly a tutorial can be integrated in to a story game.

Going back and updating an older tutorial was interesting too. Back when I created the tutorial, I thought I knew all the rules mentioned in this thesis. But going back, there were some obvious ways to improve it. One thing I would have liked to do was a small-scale study comparing the old and new tutorials by having people play them both and answering a survey. Unfortunately, I didn't have the time.

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