Assignment 2: Prototype, Design & Playtesting

Game Design course 2017-2018, Utrecht University.

Overview

The second practical assignment focuses on the game design and production itself. You will not 'just' design a game, but you will need to think consciously how to achieve the desired experience and evaluate the design in reviews and by playtesting.

Tasks

Your team will take the game concept from assignment 1, craft a feasible *design* and produce a *prototype* which strongly generates the experience expressed in the concept and vision statement.

You will work in 'sprints' where every week you will deliver a working prototype which you will *review* with TA and partner team(s.) This will give you new *insights*. During the implementation you are encouraged to adapt or extend the design to make the experience stronger resemble the vision. You will capture the progress of your design by collecting the feedback, insights, design decisions and planning for the next sprint in the *design progress report*. After four sprints you will prepare, conduct and evaluate a *playtest session*. In the playtest report you will summarize your most important insights and suggest how the prototype could evolve.

Finally, you will create a *presentation movie* in which you explain the essence of your game (prototype). This movie is your *end presentation*. You will be graded for this movie, and by popular vote of your classmates, you can also win an amazing prize! :)

In total, this creates six subtasks in this assignment. You may write the documents in Dutch.

- P2.0 - Initial design (design document part 1)
- P2.1 - Design progress reports (4 parts)
- P2.2 - Design & develop the prototype
- P2.3 - Playtesting research plan
- P2.4 - Conduct and evaluate the playtesting
- P2.5 - End presentation

Team
The teams will be the same as the teams for assignment 1.

Context

The assignment represents a condensed game development cycle. The goal of this assignment is to design and test a *game experience*, this is different from the introduction project game. Creating the prototype is not about art, implementation, promotion, polish or even programming (unless one of these is essential for the experience). You will have little time available to develop your prototype, so you must create a smart design which is easy to implement while still delivering a strong experience.

Deadlines

This assignment contains several small short term deadlines. This requires an active participation. Keep track of these deadlines!

- Thursday, March 1st before 23.59: Submit subtask P2.0 (initial design)
- Friday, March 2nd before 23.59: Submit subtask P2.1 progress report #1
- Friday, March 9th before 23.59: Submit subtask P2.1 progress report #2
- Friday, March 16th before 23.59: Submit subtask P2.1 progress report #3
- Friday, March 23rd before 23.59: Submit subtask P2.1 progress report #4
- Monday, March 26th before 23.59: Submit subtask P2.3 (playtest research plan)
- Wednesday, April 4rd before 23.59: Submit subtask P2.4 (playtest evaluation report)
- Wednesday, April 4rd before 23.59: Submit subtask P2.2 (design document & prototype)
- Thursday, April 5th before 23.59: Submit P2.5 End Presentation
- Friday, April 6th between 11.00 and 15.00: P2.5 End Presentations

Submit all subtasks using Blackboard, unless another method is indicated.

Grading

Subtask 0 (initial design) is part of subtask 2 (design document). You will receive five grades for this assignment:

- Subtask 1   - 20%
- Subtask 2   - 50%
- Subtask 3   - 10%
- Subtask 4   - 10%
- Subtask 5   - 10%

Subtask 0: Design document: initial design

During the development of your game prototype you will make all kinds of game design decisions. You will document these in a game design document. In this first assignment you will create the outline and start of this document and describe your first game designs decisions.

Tasks

A game design starts with an idea and a concept. Examine your concept from assignment 1. Add, keep or alter this according to the insights you have as a group so far. Discuss and analyze the intended game experience in more detail. What do you want to achieve *exactly*? Using this deeper understanding of the intended experience, you will create more substantiated design decisions. These decisions are your hypothesis for how the game experience can be created.

Design document

The design document you deliver with you prototype (subtask 3) should reflect the game development process, describing all the (major) game design decisions in enough detail so that 'the why and how' are clear. Subtask 0 will be the setup for this document, with initial design decisions so feedback can be provided in time.

You will add to this document during development, and use it itself as a tool to create the game. Therefore it should be clearly structured, not too 'fluffy' or fiddled with complicated texts. Keep to the point. When applicable use diagrams, tables and sketches to clarify functionalities. Also make use of what you learn in the lectures throughout the course and apply terminology when applicable.

Your initial design document, handed in as subtask 0, should contain the following aspects:

- **The game concept**: short description of the *vision statement*, the *target audience*, the *goal* and the *unique selling point.* Explain why the game will be interesting for the target audience compared to similar games. This should be a <u>game design aspect.</u>
- **The game experience** analyze the intended game experience in more detail. What do you want to achieve *exactly*?
- **The initial design**, describing the initial game design decisions to create the experience. The design decisions are relatively concrete, they describe things you can put in a game although they don't *necessarily* specify how exactly.

Note that this this document is not a complete design or a 'regular' design document. The decisions should follow naturally from the analysis, or the relation should be explained. Some examples of design decisions are the following:
- If the analysis reveals that it is important that there is a visual challenge where the player must track something in a chaos, a design decision may be: "There are many small things constantly moving through the level, and they come very near to the player to increase the distraction."
- If the analysis reveals that it is important that there is a lot of narrative freedom, a design decision may be: "There are a lot of characters present who each tell a part of a story through dialogue."

There is a template available for the design document on the website.

Requirements:

- All aspects mentioned above (and in the template) are present.
- About 4-5 initial design decisions are expected.
- There is no specific length requirement, although 2-3 pages are expected.
- Deliver a pdf document.
- Name the pdf "P2.0-team-#" *(where # is your team number)*
- The document should contain the name of the team and the names of all members.

Deadline: Thursday March 1st before 23.59

Grading

The design document will be graded in total in subtask 2.

Subtask 1: Design progress reports

Creating a game, an experience for the player, is not a straightforward process. At the start of your project you do not have all the knowledge and expertise, you will learn and gain valuable insights along the way. This is what game design is about.

Scrum

We will use the scrum framework to give structure to this process. Working in sprints and delivering a working prototype weekly will help you to focus on the game design to improve the intended game experience. You will review your work and gain feedback and insights from where you can improve the game prototype. You will capture the progress of your design, the feedback, insights, design decisions and make the planning for the next sprint in the design progress report.

The goal is to clearly capture the progress and make insightful how the design decisions evolve your game prototype. It will also help you to track your planning and workload.

Review

You will work in sprints where, every week, you will deliver a *working prototype* which you will *review*. Starting Friday March 2nd you will have four weekly review meetings with your TA and partner team(s). Your TA will provide you with a time table for these meetings.

Prepare your review by filling out the first part of your report: describe what will be reviewed (focus on what has changed) and what game design decisions were made.

In only 5 minutes a team will present the progress in development by (preferably) showing working software* and explaining the <u>changes</u>. The TA and partner team(s) will then have 10 minutes to provide feedback and discuss. This is also a very short amount of time, the objective here is to gather feedback and also to practice this method. When you are providing feedback take notes during the review and formulate your feedback in a positive way. Be very clear and really explain the thoughts behind your opinion.

After the meeting your team will discuss the feedback more thoroughly and decide what the takeouts are and note these in your report. Preferably after the review you will have a retrospective meeting, where you will evaluate the process, teamwork and provide feedback to each other. The objective is to learn and make changes accordingly. You will finish with discussing and determining the planning for the coming sprint.

The meetings together (review, retrospective and planning) will take about 2 hours, finish your report with the insights from these meetings and submit this on the same Friday.

* for the first sprint report you will present in 5 minutes the current state of your project by explaining your game design analysis and first game design decisions provided with the initial design document and optional showing your Unity basic prototype.

Tasks

In total you will have four reviews and write four design progress reports. **There is a template available for the design progress reports on the website under assignments.**

All reports contain four chapters:

1) Sprint: Short description of the prototype in its current state, a list of completed user stories and game design decisions that were made during the sprint.
2) Review: The key feedback, insights and decisions following the review presentation.
3) Retrospective: The retrospective findings and actions
4) Planning: The next sprint planning.

Keep the report short, and concise. The goal is to capture the insights and actions. It is advised to finish the first chapter of your report before the TA meeting and fill out the rest during your Friday meetings.

Requirements:
- All aspects mentioned above (and in the template) are present.
- There is no strict length requirement.
- Deliver a pdf document.
- Name the pdf "P2.2-sprintreport-#-team-#" *(where the first # is the sprint number and the second the team number)*
- The document should contain the name of the team and the names of all members.

Deadline report 1: Friday March 2<u>nd</u> before 23.59

Deadline report 2: Friday March 9<u>th</u> before 23.59

Deadline report 3: Thursday March 16<u>th</u> before 23.59

Deadline report 4: Thursday March 23<u>rd</u> before 23.59

Grading
Your team will be graded on participation during the meeting and on the quality of the reports.
Note: (The progress in) the game design itself is not graded here.

Criterion	Poor	Fair	Good
Participation (important)	Not all reviews were prepared. Little attention was given to the presenting team or not taken seriously.	The reviews were prepared. Some good feedback was provided for partner team(s).	The reviews were well prepared, everybody in the team participated. Constructive feedback was provided to the partner team(s).
Reporting (important)	Reports are not complete and/or unclear. Reports are not critical or reflective.	Reports are complete. Feedback was taken seriously and used to improve the process and design.	Reports are complete, well structured and critical. Feedback was analysed well and used to benefit the game's design and process.

Subtask 2: Design and develop the prototype

The prototype development is focused on two things: the creation of the prototype and continuing on the design decisions from subtask 0.

Design document

The design decisions from subtask 0 are the basis for the design decisions in this subtask. During the development you will have to modify or remove (some of) these design decisions. Also, new ideas for design decisions will arise during the development process. You will track these decisions in your progress reports and summarize these in de design document.

The design decisions in subtask 0 were quite general. It is to be expected that the design decisions added during the development will be more concrete and focus on smaller aspects of the game. Furthermore, while the design decisions in subtask 0 were made upfront, the design decisions in this subtask should be based on both the *analysis* and *practical experience* during the development. Make sure to note down the reasoning for the design decisions.

Task

Take the initial design document you handed in for subtasks 0. With your additional knowledge from the classes and new insights from designing and developing expand this document with analyzing the game experience in more depth and add design decisions you have made.

Analyzing the game experience
- The analysis should start by identifying the **1 or 2 most important aesthetics** (as explained in the MDA lecture). The aesthetics should follow naturally from the vision. If the relation with the vision is not obvious, it should be explained.
- Next, more detail should be specified about the aesthetic. For example: what *type* of challenge is there in the game? (e.g. visual-spatial challenge, or logical-mathematical, etc.) Another example is: what type of discovery is there in the game? (e.g. discovering environments, or discovering gameplay mechanics, etc.)
- The analysis may go even deeper into examining the intended experience, and what the consequences are for the game design. You may include other aspects such as the target audience and the unique selling point in the analysis.

The final design decision document should give a good overview *why the game realizes the intended game experience*. Note that the creation and analysis of design decisions is a very important part of subtask 2 and everyone in the team should be involved!

Prototype

The prototype should focus on implementing the *design*, not on art, technical implementation, promotion, polish or even programming (unless one of these elements is essential for the experience). Is it essential that the intended experience is achieved! Be conscious that everything that does not add to the experience or even distracts costs time and will probably not lead to a better grade.

The prototype must be made with Unity. To make the grading doable, it is required that the game can be executed directly on a Windows 10 machine without needing an installation or peripherals such as a controller. Exceptions may apply, contact the lecturer to discuss this.

Be smart in your implementation choices. Creating a prototype is about focussing on the experience in a very limited time. If you can use existing things, for example via the Unity asset store, you are encouraged to do so! If you're going to copy large parts of a game, consult with your TA or the lecturer first. Plagiarism is not allowed!

Note that you have to show something new and working every week during the sprint reviews on Friday. Work towards this day and be sure your new features work as it is the moment to get valuable feedback.

Though programming is not graded, it is important that the prototype is **functional** on a mid range PC. Bugs or other glitches impairing the game experience negatively affect the grade. Make sure to add instructions for controls and possibly add 'cheats' so the graders can see the entire game.

Requirements

Requirements for the design decision document:
- There is no strict length requirement. In general 3-4 pages, excluding images is expected to be sufficient.
- Deliver a pdf document.
- Name the pdf "P2.3-team-#" *(where # is your team number)*
- The document should contain the name of the team and the names of all members.

Requirements for the prototype:
- It is created in Unity.
- It can be executed directly (on double click) on a Windows 10 machine without needing an installation or peripherals such as a controller.
- All relevant source code and materials must be included in the submission.
- It must be functional, contain control instructions and cheats.

Deadline

Two things must be submitted in one zip-file: The prototype including source and the design decision document. If you exceed the 50MB limit, send a WeTransfer to game.ontwerp.2018@gmail.com and mention the WeTransfer link in the blackboard submission.

Deadline: Wednesday April 4ᵗʰ before 23.59

Grading

No judgment is made on whether the vision itself is fun or not.

Criterion	Poor	Fair	Good
Realization of vision (very important)	The experience formulated in the vision is not strongly present in the game. It seems as if there was not a focus on the vision during development.	The experience from the vision is clearly present, although not very strong. It is clear that the team paid attention to the vision.	The experience from the vision is strongly present. The game is very focused on delivering the formulated vision with few distractions.
Design Process (important)	It's unclear how the iterative process had effect on the design decisions or little was done with the feedback	It's clear how the iterative process had effect on the design decisions and some interesting changes have	The iterative process had a very clear effect on the design and decisions were very clearly analysed and

	or own analysis of the game.	been made with the feedback or own analysis of the game.	documented based on the feedback or own reflection of the game.
Design decision explanation (important)	There are a few decisions where the relation to the vision is explained clearly, but the explanation of most decisions is questionable. It seems like the decisions were an afterthought.	Most decisions clearly follow the vision, and it is clear how they do so. There are also some decisions where the indicated design effect is not very clear.	It is very clear how the decisions enforce the vision. There are almost no decisions present where the explained contribution to the vision is questionable.
Implementation (important)	Several design decisions have not been implemented and/or some bugs significantly affect the experience.	All design decisions are implemented. The game works, but there are occasional hiccups or rough edges.	All design decisions are implemented. The game works smoothly.
Formatting (less important)	The document has a title and a few sections, but not much more formatting.	The document is divided in logical sections and paragraphs. The different design decisions are clearly separated.	In addition to "fair", the document is well polished and contains several images and colors to aid in the explanation.
Language (less important)	There are some weird sentences.	Most sentences are nice and clear.	It is very easy to read.

Subtask 3: Playtesting research plan

Your team will be creating the research plan for a playtesting session. This means that you have to think carefully how to construct the playtest session in order for it to yield the desired information.

Research questions

The main research question in your plan will be **"How is the intended experience realized in the player?"**. This question is too vague to test directly, therefore you will have to create more concrete sub-research questions.

Before creating the research questions, first give a short summary of the intended experience, as formulated in P2.1 part 1. Make sure to include the vision statement.

Create 3-5 research questions which investigate a certain aspect of the intended experience. This does not have to be something which is literally in the intended experience, but it should be closely related. Describe shortly how each question is related to the intended experience.

When thinking of research questions, try to formulate them as specifically as possible. This will make it easier to answer them. For example, it is too broad if your research question is "is the game challenging?". Try to formulate more specific questions about aspects of the challenge. Refer to the playtest lecture for examples.

Method

The next step is to make a plan how you want to answer the research questions. There are several methods to gather the information you need such as a questionnaire, in-game metrics, participant observation, and interview.

For each research question, write down what type of method(s) will be used (e.g., questionnaire, observation, interview, metrics) and describe shortly why this is appropriate. Note that you should use at least one qualitative and one quantitative method in total.

For each research method you will use, make a detailed description how this will be executed. Write down at least the required preparations (e.g., questionnaire questions, observation points, starting questions, recorded metrics data), how this data will be recorded/stored, and how the data will be processed (e.g. computing the average and standard deviation, summarizing, finding recurrent topics, graph plotting).

Finally, note down how the serendipitous findings during the playtest session will be recorded.

There is a template available for this document on the course website.

Requirements
- All aspects mentioned above (and in the template) are present.
- There are at least 3 research questions.
- At least 1 qualitative method and at least 1 quantitative method is used.
- There is no strict length requirement, but at most four pages is expected. Don't be overly ambitious!
- Deliver a pdf document.
- Name the pdf "P2.3-team-#" *(where # is your team number)*

- The document should contain the name of the team and the names of all members.

Deadline

All files must be submitted in one zip-file: The playtesting plan and the material required during the playtest. If you exceed the 50MB limit, send a WeTransfer to game.ontwerp.2018@gmail.com and mention the WeTransfer link in the blackboard submission.

Deadline: Monday March 26th before 23.59

Grading

Criterion	Poor	Fair	Good
Method (important)	The steps in the plan are vaguely described and/or incomplete and it is not clear using what data the research questions will be answered. It is not sure that the research questions can be truly answered afterwards.	The plan contains all necessary steps, although there are some details missing. The connection with the research questions is present. It is likely that useful data will be obtained.	The plan describes all aspects of the playtest in detail. It is very clear how the playtest will be able to answer the research questions correctly. The plan is sure to yield useful data.
Research questions (important)	Most research questions are very general and could be applied to more games. Several questions invite vague, guiding or useless answers such as "yes".	Most questions address the intended experience, although still a bit vague. Most of them are formulated to give useful answers.	Nearly all questions target important specific aspects of the intended experience. The questions largely answer the main research question.
Formatting and language (less important)	The structure is minimal. There are some weird sentences.	There is a nice structure. Most sentences are nice and clear.	It is very easy to read.

Subtask 4: Conduct and evaluate the playtesting

The actual playtesting will be conducted and the results will be evaluated. Using the conclusions, several improvements for the prototype will be proposed.

Playtesting sessions

Execute the playtesting plan you created for subtask 3. Everyone in the team should be involved in conducting the playtests. Make sure to save all material (questionnaires, notes, etc.) generated during the playtests.

The playtest is <u>not</u> to check if people like your game. It's to get valuable feedback on how to improve your game. Approach the playtest as such.

Be also aware that you have to organise these sessions yourself. Start in time to organize this so you can get enough people to participate. Make sure your game is ready for the tests.

Evaluation report

First the data obtained in the playtest sessions should be analyzed. What can you learn from the playtest data about how the game is experienced? The serendipitous findings should also be analyzed.

The next step is to answer the research questions from the playtest plan using the obtained (analyzed) data. It is important to think about the validity of the results, and which factors may have made the results less valid. A short validity analysis should be added for each answered research question. (Note that it is impossible in practice to do research with perfect validity. That is fine, as long as you know what the validity concerns are.)

Using these results, changes to the prototype should be proposed which improve the game. It should be explained how the playtest evaluation (the previous part of this report) has led to this improvement. The proposed changes should be relatively concrete. For example "something must be changed about the learning curve" is very vague and not concrete. What should you do exactly and how can you achieve that?

There is a template available for this document on the course website.

Requirements
- All aspects mentioned above (and in the template) are present.
- The material generated during the playtests should be submitted together with the evaluation report.
- There is no specific length requirement, although a document of about four pages is expected.
- Deliver a pdf document.
- Name the pdf "P2.4-team-#" *(where # is your team number)*
- The document should contain the name of the team and the names of all members.

All files must be submitted in one zip-file: The evaluation report and the material gathered during the playtests. If you exceed the 50MB limit, send a WeTransfer to game.ontwerp.2018@gmail.com and mention the WeTransfer link in the blackboard submission.

Deadline: Wednesday April 4<u>th</u> before 23.59

Grading

Criterion	Poor	Fair	Good
Gathered data (important)	About 5 playtests are conducted. Some material is useful, but there is some incomplete or weird data.	At least 8 playtests are conducted. The material is useful for the evaluation.	At least 10 playtests are conducted. The gathered data is processed nicely into tables or graphs. The material is very useful.
Evaluation (very important)	The data analysis gives obvious information. The answers to the questions are not explained convincingly. The validity analysis does not see many of the validity problems.	The data analysis gives some interesting results, but also some obvious results. The questions are answered properly with a decent explanation. Some validity problems are found.	The data analysis leads to several very interesting results. The questions are answered convincingly. The validity analysis identifies some major problems (or explains why these are not present).
Proposed improvements (important)	Most improvements are vague and only mention where things should be improved. For several improvements it is not clear how the playtest has led to this result. The effects of some of the improvements on the game are questionable.	Most improvements are concrete. For most, it is clear how the playtest has led to the result. The improvements follow trivially from the conclusions and are likely to improve the game.	All improvements are concrete and it is clear how they result from the playtest. The proposed improvements are not trivial and are a clear addition to the game.
Formatting and language (less important)	The structure is minimal. There are some weird sentences.	There is a nice structure. Most sentences are nice and clear.	It is very easy to read.

Subtask 5: End presentation

Your team will create the end presentation in the form of a movie so that actual game play can be shown. You will use gameplay clips to show how the game experience is achieved in your prototype and explain it with text or speech in the movie. The goal is to clearly and concretely communicate what the game experience is and how it is achieved.

Movie

Show, through gameplay, how the main game mechanics lead to the main aesthetics and vision statement of your game.

Your presentation clip has to be between 3 and 4 minutes. This will be shown at the end presentations.On the website you can find links to available software. Upload your movie, public or unlisted to Youtube (double check its availability for others).

Requirements

- Between 3-4 minutes long
- Opening contains team name and student names
- Mention the intended experience (vision statement)
- The movie contains gameplay clips
- The movie must be uploaded to Youtube a day in advance, see the deadlines
- The movie must be public or unlisted available

Make sure to upload your movie a day in advance, on April 5th, before 17:00. Submit the link on blackboard, and also mail this to game.ontwerp.2018@gmail.com. Your TA will create a playlist for the end presentations.

Deadline: Thursday April 5th before 17.00: submit link of the video

Presentation: Friday April 6th, between 11.00 and 15.00

Criterion	Poor	Fair	Good
Concreteness and completeness (important)	There is a movie, but it is unclear how the gameplay supports either the aesthetics or the vision statement.	The gameplay compilation supports the vision statement and/or aesthetics. Some relation may remain unclear.	The gameplay compilation shows all important aspects in a clear way. It makes it very clear what the vision and aesthetics are.