

CS235 Kitchen Catastrophe Study Plan

Summary

This user research project aims to understand what features are deemed the most useful and/or important in producing more enjoyable 2D retro games. The results of which will be seen in retrospect following an update to the existing “Kitchen Catastrophe” game we have produced. The procedure will follow a general pre-post design involving surveys and lightly structured interviews. Users will experience the game before an update and, following their feedback, will experience a game post-update. A comparison of results from the surveys and interviews will be used to draw a conclusion on which features are clear contributors to a game’s enjoyability. The research is targeted not only at understanding what makes a game enjoyable but also what can enhance it and make it more enjoyable.

Rationale

The project will provide greater insight for small developers and future university students on what features are the most user friendly and important to a game’s success. This means less time and resources spent developing features which ultimately don’t add to a games appeal and will either go unused or unwanted. Often developers update and remove features deemed “overkill” or “boring” by their userbase, and this research will hopefully reduce this problem. Furthermore, knowing which features enhance a games enjoyability means existing developers can consider these ideas for future updates. We are looking not only to assess features but also to test the game and understand if any original features are poor or have bugs.

Aims

- To test any problems, bugs, or hinderances users face with the game.
- To find features that will enhance Kitchen Catastrophe and implement them.
- To understand which existing/non-existing features make a game enjoyable.
- To understand if adding features to an existing game can make a game *more* enjoyable.
- To strengthen user relationships and understand how best to update a game following user feedback. (Is listening to a general idea enough?)

Stakeholders

- Mr Stuart Nicholson (*Module Lecturer*)
- Users
- CS235 Group 44 (*Previous developers*)

Participants

The study will involve selecting a minimum of 3 participants ranging in age from 10 – 40 years old. This will allow us to understand if specific features are seen more frequently from a particular age group – namely we will look at this range in the following groups:

10 – 21

22 – 34

35 - 40

Research Design and Methods

Participants will experience a full demonstration of the game by the researcher, including all original features (and the level editor). They will be offered the option to play the game for up to 20 minutes before being given a 5-minute break to gather their thoughts and ideas.

They will then take part in a short survey regarding the game and their experience with games of this nature (retro 2D dungeon-crawler style). Questions will focus mostly on features that are weak or need fixing and potential enhancements; they will be a mixture of both multiple choice and long answer questions (in hopes of hearing more specific feedback, given the small participant pool).

Following the survey, the researcher will partake in a short lightly structured interview (which may be recorded at the participants discretion) in hopes of understanding more emotional and true feelings towards the game. The researcher will encourage detailed responses using open questions which are tailored to the participants general experience thus far (for example, if they had any frustrations during the game). This means questions will be similar to those in the question pool below, but not always exact – the researchers notes will include the exact question and any key comments the participant makes.

Participants will be issued a participant number by the researcher upon the pre-update phase. The researcher will be the only party whom has access to any personal data and contact details. Numbers will be used to protect participants identities.

After the pre-update round of feedback is complete, key enhancements and fixes will be considered and implemented into an updated version of the game. Participants will then be contacted again for a follow up survey and interview in the same format as before.

General question pool:

Pre-update:

- You mentioned [SOMETHING] earlier, can you tell me a bit more about what you feel on this?
- I noticed regarding [SOMETHING] you were slightly frustrated, please tell me if I'm wrong and your experience with [SOMETHING]?
- Is there any feature which stood out today?
- Is there any feature you think is urgently missing?
- What would you do with all the resources possible to make this game its best?

Post-update:

- You mentioned [SOMETHING] when we spoke before this update, can you tell me how you feel about it now?
- Is there anything you feel went unnoticed that could have made a major difference?
- What're your thoughts on this updated game?

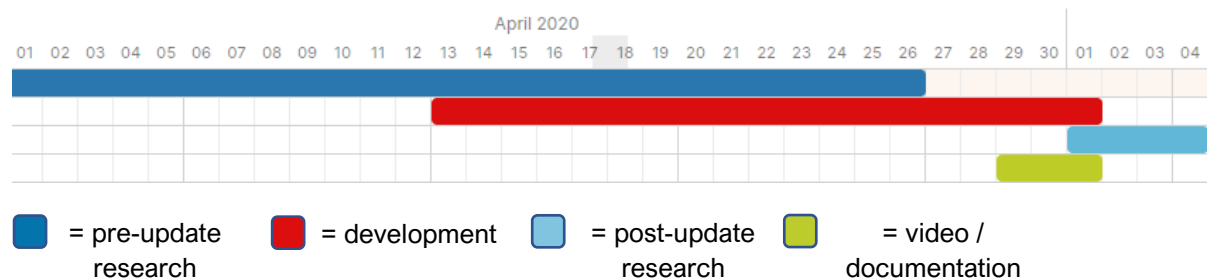
Some participants may have up to 3 days following demonstrations to deliver feedback, provided they cannot meet in person.

In summary:

1. Demonstrate game (5-minute break following)
2. Take survey
3. Lightly structured interview
4. Update game
5. Repeat steps 1-3

Project Timetable

Below is the Gantt chart for the project, the researcher will be using GitHub and an automated Kanban style project board to ensure the research takes place at worst within this time frame. The nature of the research and possible complications mean a worst-case completion date of 4/5/20 however development and updating can occur quicker, and participants may complete feedback both pre and post study in a much timelier manner.



Relevant Documents:

All relevant documents to the user research can be found in the following pages. Please refer to the index below to find a specific document.

Index:

- **Bill of Rights – Page 4**
- **Informed Consent Form – Page 5**
- **Informed Consent Form (Parent/Guardian) – Page 8**
- **Pre-update Survey – Page 11**
- **Post-update Survey – Page 13**

User Research Participant's Bill of Rights

The following is a list of your rights regarding participation in a user research project organised by Rowan Aldean for use in his assessment under the Department of Computer Science at Swansea University.

As a research participant, you have the right to:

- Be free of pressure from anyone else when deciding if you wish to take part in the research.
- Decide on taking part in the research (or not) without being rushed.
- Be told the reasoning behind the research.
- Be told the expected outcomes (if any) for the research and understand the process.
- Be treated with respect and dignity in every phase of the research.
- Be told if there is no direct benefit to you.
- Refuse to take part in the user research.
- Withdraw from participating in the research at any point without penalty.
- Ask questions regarding the research at any time before, after, or during the research process.
- Receive a copy of your Informed Consent Form to keep.

Informed Consent Form

Purpose of the user research

A retro 2D style computer game has been created by the team and me. The purpose of this user research is to test the functionality of the game and explore additional functionality. A major aim is to understand what game features are deemed core to producing an enjoyable game. The research also forms part of my CS235 assignment for Swansea University.

Voluntary Participation

Your participation in this user research is entirely voluntary. It is your choice whether to participate or not. Your choice will have no bearing on your academic status/development within the university (should you be an active student or employee) or on any non-academic arrangements. You may change your mind at any moment and stop participating, even during the research process.

Procedures

Firstly I (Rowan Aldean – herein “the researcher”) will allow you to play the game on my computer. You can ask for the game to be demonstrated to you if you are unable to meet in person.

Following this, you will be asked to complete a survey made up of questions regarding technology, computer games, and your experience with the game. The survey will be given to you after a small break from playing the game. Optionally you may ask that I record your answers to the questions and complete the survey on your behalf. Alternatively, you may complete the survey and reply via e-mail within 3 days of the demonstration. An email will come from my university e-mail address (973765@swansea.ac.uk) and you're responsible for scanning any attached documents.

Finally, to take on board your feelings regarding the entire game and feedback experience you may take part in a recorded open interview on the game in general. Only audio will be recorded, and a written transcript and conclusion will be produced. You may refuse to participate in this procedure.

You will then be assigned a participant number and your feedback will go into consideration alongside others to elicit which new features are deemed most necessary for improving user experience and producing a more enjoyable game.

It is not guaranteed that any/all of the feedback given in your user research will be implemented, however, the decisions made following the research can be made available to you.

Following the updates to the game, I will survey and interview you again for your thoughts on the changes that have been made (this will be me reading/issuing some game related questions to you).

Duration

The research will take place up until **26th April**. Whilst the research process will run until this date, you will not need to actively take part following your participation in the user research until **1st May** where we will undertake the post-update interview. You may ask about the current status of the game and research results (including potential features) at any point.

Benefits

The results of this research will be used in enhancing our game before submission to Swansea University for assessment. This benefits future students as the game produced *may* be used as an exemplar piece for this assignment by the University in subsequent years.

You *may* deem the research beneficial to yourself should you wish to produce a more enjoyable 2D game of your own in the future, as all results can be explained to you at any point during and after the research process.

Your participation also benefits me directly in producing the necessary improvements to the game.

Confidentiality

Your name and personal details will not be seen used or documented by anyone other than myself. If the research and any documents are passed to 3rd parties, then your participant number will be used in order for you to remain unidentifiable. The results of the research will be used for my assessment of this assignment and to deliberate on what steps should be taken regarding further development of the game. Where possible the results will be shown cumulatively, and your feedback will not be shown alone.

Right to refuse

You do not have to take part in this research if you don't wish to do so. You may stop participating at any point without penalty. I will also give you an opportunity following the interview to review your remarks in the transcript and my conclusion; where you may ask for portions to be removed or modified if you do not agree with what was said or if details in my notes were misunderstood.

Contact Information

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact me at any of the following:

<https://www.linkedin.com/in/raldean/> LinkedIn (Aim to respond within 12 hours).

973765@swansea.ac.uk Student E-mail (Aim to respond within 1 working day).

Certificate of Consent

I have been selected to participate in research regarding a 2D game project Rowan Aldean is engaged in. I understand that my input is going to be used to consider improvements and enhancements to the project, and for further assessment as part of his pursuit for a university degree. I understand that I will not receive any material benefit(s) for my participation in the research.

- ☐ I have had the aims, objectives and purpose of this research explained to me.
- ☐ I have been offered the opportunity to view the study plan.
- ☐ I agree to participate and understand my participation is voluntary.
- ☐ I understand I have the right to withdraw consent at any time.
- ☐ I agree for my voice to be recorded but not distributed by the researcher.
- ☐ I understand my personal data will not be used by anyone else except the researcher.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction. I consent voluntarily to be a participant in this user research.

Print Name of Participant _____

Signature of Participant _____

Date _____

-----**FOR THE RESEARCHER**-----

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Print Name of Researcher _____

Signature of Researcher _____

Date _____

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- ☐ I agree to participate and understand my participation is voluntary.
- ☐ I understand I have the right to withdraw consent at any time.
- ☐ I agree for my voice to be recorded but not distributed by the researcher.
- ☐ I understand my personal data will not be used by anyone else except the researcher.
- ☐ I understand I may be giving consent for my child to take part in this research at my discretion and that whilst this document refers to "you" that it applies to my child whom I am acting on behalf of.
 - ☐ I understand I have the same rights regarding my child as if I was participating myself and that the foregoing information holds on their behalf.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction. I consent voluntarily for my child to be a participant in this user research.

Print Name of Participant _____

Signature of Participant _____

Date _____

-----FOR THE RESEARCHER -----

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Print Name of Researcher _____

Signature of Researcher _____

Date _____

Pre-Update Survey

Which of the following best describes your proficiency using computers (tablets, smartphones, laptops, desktops, etc.):

Novice (no experience, or can make use of simple functions on computer devices but needs help configuring device – for example: can video call but needs help setting up.)

Intermediate (can make use of simple functions on computer devices and may require help figuring out new functions and configuring things– for example: may need help to register your fingerprint to a device.)

Expert (highly experienced in using computers, doesn't often need help in the form of guidance and at most uses search engines to find what they need.)

☐ Novice

☐ Intermediate

☐ Expert

Do you play 2D computer games (console, desktop, laptop, smartphone)?

☐ Yes

☐ No

Would you consider the game played today enjoyable?

☐ Yes

☐ No

Describe any aspect(s) you liked in the game today (if any):

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Describe any aspect(s) you disliked in the game (if any) and suggest why:

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If there is any feature(s) you could add or remove from the game, please explain below in as much detail as possible:

[illegible]

If this game was available to you on computer right now, how likely are you to recommend it to your closest friends and family?

[illegible]

How likely are you to download and play this game again?

[illegible]

Post-Update Survey

Would you consider the game played today enjoyable?

☐ Yes ☐ No

Would you consider the game played today more enjoyable than the game experienced previously?

☐ Yes ☐ No

If this game was available to you on computer right now, how likely are you to recommend it to your closest friends and family?

Extremely Unlikely										Extremely Likely
1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How likely are you to download and play this game again?

Extremely Unlikely										Extremely Likely
1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What features specifically (if any) made this game more enjoyable:

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After partaking in this user research, are you any more likely to play similar 2D style games (dungeon-crawlers)?

No more likely than before										Far more likely
1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is there any **ONE** feature alone that you think made this game more enjoyable overall?

- ☐ Minigame ☐ Inventory ☐ Audio ☐ Waiter Enemy
- ☐ Other (please specify): _____