

What Type of Consequence Most Affects the Player?

CASE STUDY

1.0 - INTRODUCTION

This study investigates the most effective type of consequence for creating a meaningful and impactful experience in a narrative choice game by creating an experience that confronted testers with various narrative events that provided player choice and then varying forms of consequence. Testers were then asked to identify the most impactful of the events they encountered, revealing the most effective method of delivering consequence to create a meaningful or impactful experience. Achieving the aims of this study contribute to the game design field in the development of narrative choice games, increasing intrinsic player agency (Patall et al., 2008) and satisfying consumers who are looking increasingly more for serious, meaningful experiences in games (Rogers et al., 2017).

Testing for this study was performed online due to the current COVID-19 pandemic that necessitated no physical, face to face interactions. Participants were asked to download the game build from its page on itch.io and were then recorded playing the game and were asked to complete the online survey provided to them once they finished the game. Testing began on 21/12/2020 and lasted until 10/1/2021 and featured a total of 12 participants. Results were then analysed and can be viewed further in section 4.0.

1.1 - RELEVANCY

Games have a unique advantage over other forms of entertainment like film, TV, or literature. Players are active participants in the world and narrative (Zagal, 2010), they are not limited to feeling emotion through empathy towards the characters on screen or in text, they can experience true guilt, because of the consequences that came about because they made a certain decision, they choose the wrong path believing it to be right, them, not a character they are passively observing (Oliver *et al.*, 2015). It is important to gain more understanding of how consequence should be used to take advantage of one of the mediums most unique features.

Choices are a staple of modern games but still many receive criticism for inconsequential choices or poor use of illusion of choice, both of which link heavily to consequence. With this research I hoped to add to the industries understanding of how players perceive certain types of choice and consequence, specifically which kind of consequence affects them the most. Using the data from this study could aid designers in how to implement consequence most effectively into their games.

1.2 - PROBLEMS EXPERIENCED DURING TESTING

The primary problem confronted during testing involved the mandatory online aspect due to COVID-19, this meant it was harder to find willing testers and harder to get information. As it was harder to perform face to face interactions it meant it was harder to get recorded video as proof of testing, some people were not even willing to provide screenshots as proof.

2.0 - LITERATURE REVIEW

Research over the past several years investigates the link between player's moral emotions and the tangible consequences they are responsible for in the game world (Schrier and Gibson, 2010). However, most of this research focus on the broad characteristics of what makes a consequence from a choice meaningful for the player with little categorization (Tancred et al., 2018). This study aims to remedy this short coming by categorising the most effective form of consequence.

Utilising past research into the characteristics of choice linked to meaningfulness (Patall et al., 2008; Wallace et al., 2014; Oliver et al., 2015; Rogers et al., 2017), Iten et al. (2017) determines what makes

choices in games meaningful. Using an online survey of sixteen participants Iten categorised choice that the participants stated they found meaningful into a Venn diagram depending on which of the characteristic determined from past research they met (see Appendix A). The results show that twelve of the sixteen stated choice featured all three characteristics, moral dilemma, social elements, and consequence. This important research serves as a crucial foundation for this research, proving consequence to be a major component in meaningfulness, which in turn means an impactful experience that effects the player. However, a weakness of the study is the failure to define exactly what a meaningful choice or experience is. Meaningfulness is subjective (Rogers et al., 2017), and thusly each participant of the study could be working off completely different, personal definitions of what make an experience meaningful to them, therefore possibly creating inconsistencies in the data. This is an issue that this study avoids by featuring both a quantitative and qualitative component in the methodology.

In a study conducted by Rogers et al. (2017), subjects were asked to recount a fun versus a meaningful game experience. Those who described a fun experience almost exclusively focused on the gameplay whereas those who recounted a meaningful experience focused on the narrative and the story. This links with characteristics of meaningful choice (Iten et al., 2017) and helps to identify a form of consequence, that being **narrative consequence**; the combination of social elements (the games characters in the story) and consequence. This also implies that players who enjoy narrative games, shown by the fact they recount a meaningful experience from them, will likely find consequences that effect the narrative to be more meaningful and impactful than consequences that effect gameplay, this being especially relevant to the games industry who would want to make their game to satisfy the intended audience.

Interestingly, Nay and Zagal (2017), argue that the weight put on the consequences of player actions in current games restrict players to a consequentialist ethical perspective, meaning that the morality of the choice is based on the outcome rather than on the moral character of the choice itself. They propose viewing choices from a virtue ethics perspective, enabling players to explore the subtleties of moral choice, emphasising moral character over the consequences of actions. This contradicts Iten et al. (2017), instead vindicating for choices with **no consequence**, allowing the choice itself to stand on its own. This is backed up by Fendt et al. (2012), who used a purpose-built branching narrative, choose your own adventure text game to investigate whether players required consequence to feel a sense of agency, he discovered that the player maintained agency so long as their choices were acknowledged, they did not need to change the course of the game. The issue with Nay and Zagal's proposal is that they have very little evidence to back up their position, they primarily hypothesis, propose and analyse existing games, all of which are open to author bias. Fendt's findings do have evidence backing them up, but his test game had very trivial choices like where to go or what to pick up. Players may find that they do lose agency when a choice they make surrounding a major aspect of the story and its characters end with little to no consequence. Including choices with no consequence in this study provided an interesting control variable as well as sheading some more informative and definitive light on one of the most conflicted aspects of this field. This study also closely replicates Fendt's methodology except that the choices made in game are all significant and so yielded more empirical data on whether players require consequence.

Christiansen (2017), evaluates methods of creating ethical systems in games, focusing on the use of intentional ambiguity to motivate players to make true moral choices instead of basing choices on game systems, like morality meters (see Appendix B). While encoded system of ethics does add a tactical element to player choice and therefore the opportunity for **gameplay consequences**; that being consequence that affects gameplay systems. However, a more ambiguous system adds much more depth to a player decision. Christiansen goes on to state that even an ambiguous system must still be able to be decerned at least partially by the player to keep the game world consistent. However,

Alexis Kennedy in his method for creating interactive games (GDC, 2016) conflicts with Christiansen by saying that players should be warned about any deferred consequence as he believes that players should not be hit with consequences long after a choice that they thought had been resolved. This contradicts with Sicart's (2013) proposed perfect moral dilemma that necessitates a high amount of ambiguity both in the presentation of the choice and its delivery of consequence which generates an interesting conflict between the worth of **immediate consequence** versus **delayed consequence** as an immediate consequence has little ambiguity as the player finds out about it straight away whereas delayed consequence most commonly cannot be seen coming, therefore very ambiguous.

The literature shows that, as stated, while much research has been performed identifying the features of meaningful choice and the types of consequence that can affect how meaningful an experience is, there is no research done, to the authors knowledge, on which of these forms of consequence are the most effective, which is seen by the number of conflicts in the papers reviewed, it is the aim of this study to fill in this gap.

3.0 - METHODOLOGY

Using the forms of consequence identified in the literature review the author created a narrative choice game where all the types of consequence: immediate consequence, delayed consequence, gameplay consequence, narrative consequence, and no consequence, featured in at least one of the scenarios presented. Determining which of the scenarios most affected the players then identified which of the forms of consequence was the most effective.

3.1 - METHODOLOGY

The most common methodology seen in the papers discussed in the literature review the use of surveys (Fendt et al., 2012; Oliver et al., 2015; Iten et al., 2017; Rogers et al., 2017). Therefore, this study chooses to emulate this tried and tested method. However, a weakness of this method mentioned in the literature review is that as meaningfulness is subjective, different for everyone there is a possibility for inconsistent data. This study tackled this issue by including a question in the survey where participants were asked what they believe make a media experience meaningful, this allowed for the understanding of subject viewpoints and allowed deeper analysis and correlation.

On a separate notion, Zagal (2010) has argued if it is ethical to create a game with the intention of making the player feel bad, which the design experience may do. However, Oliver et al. (2015) suggests that players want to have these meaningful experiences despite this, as they do in other types of media, weakening Zagal's argument.

3.2 - HYPOTHESIS

Narrative consequence will be the most effective because players who recount meaningful videogame experiences usually describe aspects of the games narrative and characters (Rogers et al., 2017). People who enjoy narrative games will be most affected by the narrative.

3.3 - METHOD

Participants were first asked to download the game build from itch.io and were then recorded playing through the experience. This recording allowed for the sessions to be viewed again if any additional data wished to be gathered such as what choice exactly did a participant pick or how long did they take to make a certain choice.

Once participants finished playing the game, they were then given the survey to complete (see Appendix C). The survey begins by determining how much the subject enjoys narrative games, this enabled the ability to see if the fondness of the genre affected anything and to explain any possible anomalous data. Then as discussed in section 3.1 the participants are asked what they think makes an entertainment experience meaningful so that each subject subjective viewpoint can be understood. Finally, the survey asks which of the scenarios in the game affected them the most to determine the most affective form or consequence and then the participants are also asked why they thought they found this scenario meaningful, as what the player experienced that made the event meaningful may be unrelated to the method of implementation used. Including this introspective question strengthens the validity of the data.

3.4 - DATA ANALYSIS

Participants in the study were split into clusters depending on how they answered the first question of the survey, so all subjects that strongly agreed that they enjoyed narrative games were in one cluster and the same for the other answer options. This allowed trends to be seen but also allows for more relevant data in terms of game design as ideally narrative games would want to be designed to most appeal to those you enjoy them the most rather than those that do not.

The survey responses were analysed to see which of the game's scenarios are cited the most as affecting the player. Then by looking at why each of the participants that selected those scenarios thought they found that scenario impactful it could be determined if the form of consequence used in that scenario was the cause and if so then which it was, answering the aim of the study. Google surveys (2012) were used for the survey as it allowed for easy distribution, collects all the results in one place and requires no expense paid.

4.0 - FINDINGS

4.1 - Overview

The first question in the survey was to determine how much the participant enjoyed playing narrative games. This is so that the testers could be split into clusters depending on the one to five score that gave on the answer. Out of the twelve participants, 41.7% said five, strongly agreeing that they enjoy narrative games. A further 16.7% selected four, 25% selected three, 16.7% selected two and no one in the study said that they strongly disagreed that they enjoy narrative games (see Appendix D). This spread is ideal for this study as for the data to be relevant to game design practise it should be from the target audience for narrative games, but having data from people not inclined towards that style of game allows interesting correlations to be drawn from the data.

4.2 - Major Findings

Of all the games seven scenarios only three were cited between all twelve participants as being impactful or meaningful (see Appendix F), two of those three scenarios were the most cited with both having 33.3% of the testers selecting them as the most meaningful. Those two scenarios were the 'Confrontation at Security Post Dea' where all the players choices up until that point are considered and there are potentially major consequences for the main characters across ten different outcomes and then also the 'Abused Workers' where the player must choose between what is morally right and what is politically correct.

In all three scenarios that the testers found meaningful or impactful they all featured two of the same types of consequence; immediate consequence and emotional (narrative) consequence, with one of the scenarios having an additional type of consequence which was tactical (gameplay) consequence (see Appendix G). By interpreting all the testers answers to the final question of the survey to determine if the types of consequences used were in fact responsible for making the scenario meaningful it shows that emotional (narrative) consequence is the clear most effective type of consequence in making a meaningful or impactful experience (see Appendix I).

4.3 - Minor Findings

Looking at the data received there are also several small findings that can be seen. Firstly, by looking at the differences in what people think makes an entertainment experience meaningful (see Appendix E), those that strongly agreed that they liked narrative games, the '5 category', commonly cited the characters of the story with the majority (31%) talking in some way about characters in their answer. Looking at the other clusters of testers who did not answer five to that questions however you can see that characters is no longer the dominant result, instead it has been overtaken in equal measure by meaningful choice, immersion and thoughtfully provocative, all with 22% of testers in the not '5 category' citing them as what they think makes an entertainment experience meaningful.

Secondly, if you look at the scenarios that testers found meaningful on a cluster basis you can observe that as the clusters enjoy narrative games less and less the percentage that tactical consequence is a type of consequence found in the scenario they select as the most meaningful or impactful increases (see Appendix H). This is exactly what you would expect to see as people who do not enjoy narrative games are also likely to not enjoy narrative consequence and to then enjoy the opposite type of consequence, tactical gameplay consequence. This is a good measure of the effectiveness and accuracy of the study as it results give new finding while also reaffirming existing ones.

4.3 - Future Research & Improvements

To further expand and improve upon this study the types of consequence could be isolated even further as in this study it was left to the authors interpretation as to what type of consequence, if any, was responsible for a scenario's meaningfulness. If scenarios only used one type of consequence rather than a range, then the results would be much clearer and more definitive. This study included multiple types of consequence in each scenario so that more ground could be covered with fewer scenarios to keep the project scale small and to maintain an enjoyable aspect to the game.

Future research could also investigate the effectiveness of predictable versus unpredictable consequence as academic and industry practise and theory clash on that front between creating a meaningful experience and making a game that does frustrate the player.

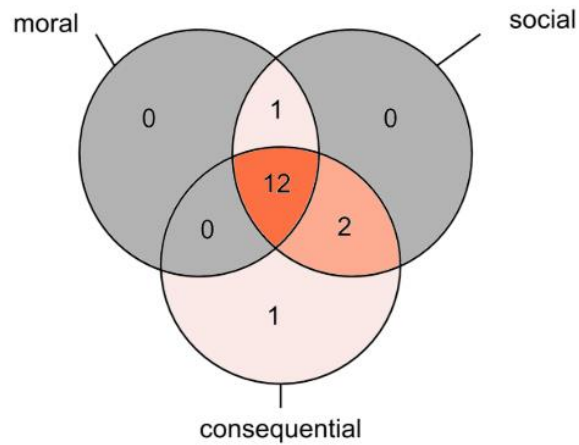
The quality of game writing is also an aspect of the game experience that could be improved as it stopped one of the testers from experiencing any impactful scenario (see Appendix J) citing the lack of context provided in the game world as a major factor towards this. If the study were to be conducted again more drafts and iterations of the events would be gone through.

4.5 - Conclusion

In conclusion, this study set out to determine what type of consequence most affects the player, and it has managed to determine that very successfully with the results showing very clearly that emotional consequence is the most effective at delivering a meaningful or impactful experience (see Appendix I). While the study did have some weaknesses in terms of not isolating types of consequence more and having weak writing in terms of the gameplay scenarios. Despite these short coming however the study still managed to prove the studies hypothesis correct by a clear margin as well as producing several minor findings that provide interesting insight and lends the study legitimacy.

5.0 – APPENDIX

Appendix A: Venn diagram of results (Iten et al., 2017)



Appendix B – Morality Meters (Mass Effect, 2007)



- A morality meter keeps track of how good or bad they have been and displays this information to the player a good example is the 'paragon' and 'renegade' meter from the Mass Effect series.

Appendix C – Author created survey

Experiential Design Survey

Form description

Do you agree with this statement: 'I enjoy narrative games' *

1 2 3 4 5

Strongly Disagree Strongly Agree

In your opinion, what makes a piece of entertainment impactful/meaningful? *

Long-answer text

What scenario in the game, if any, did you find the most impactful/meaningful? *

None of them

Civilian Shuttle at Brink Station

Pirate Raid

Prison Ship Riot

Abused Workers at Black Sky Station

Disease Outbreak on Eras

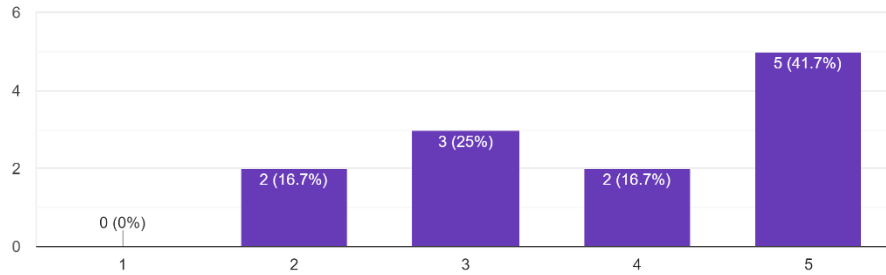
Confrontation at Security Post Dea

Why do think you found this scenario impactful/meaningful? Or why do you think you do not find any scenario impactful/meaningful? *

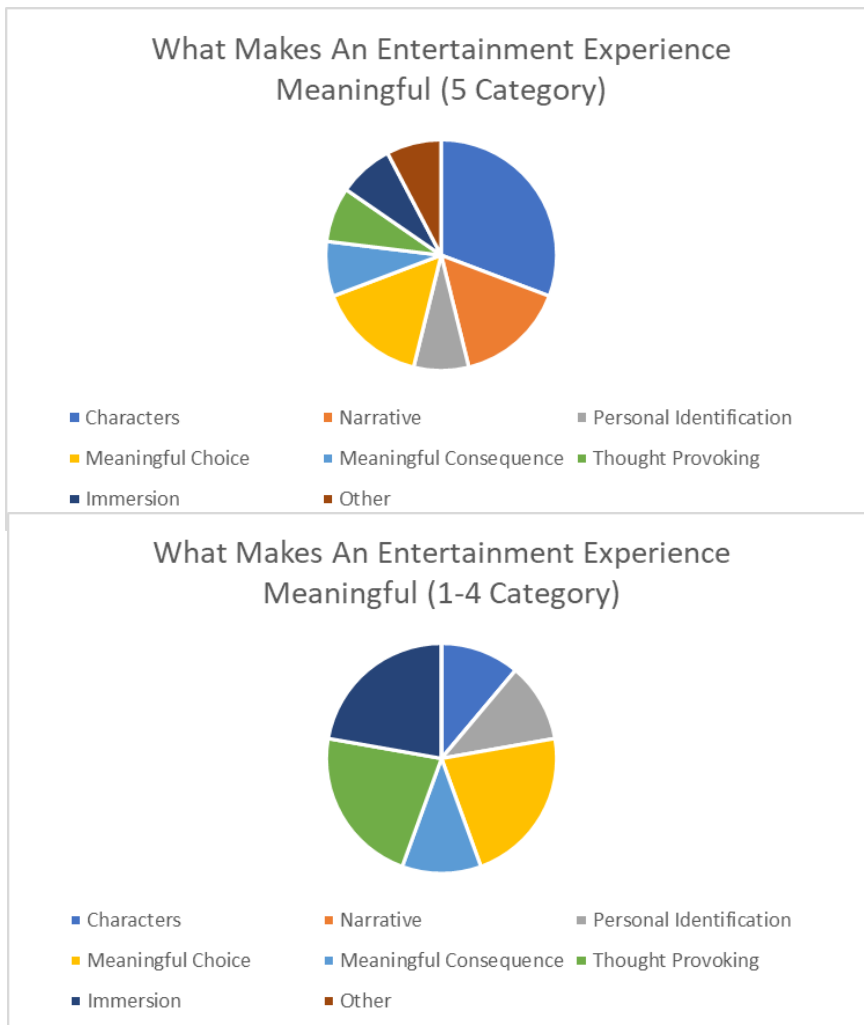
Long-answer text

Appendix D – How much participants enjoy narrative games.

Do you agree with this statement: 'I enjoy narrative games'
12 responses



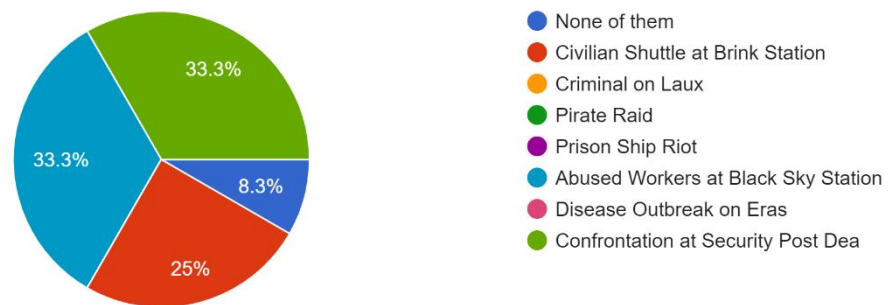
Appendix E – What makes an entertainment experience meaningful; people who greatly enjoy narrative games versus others.



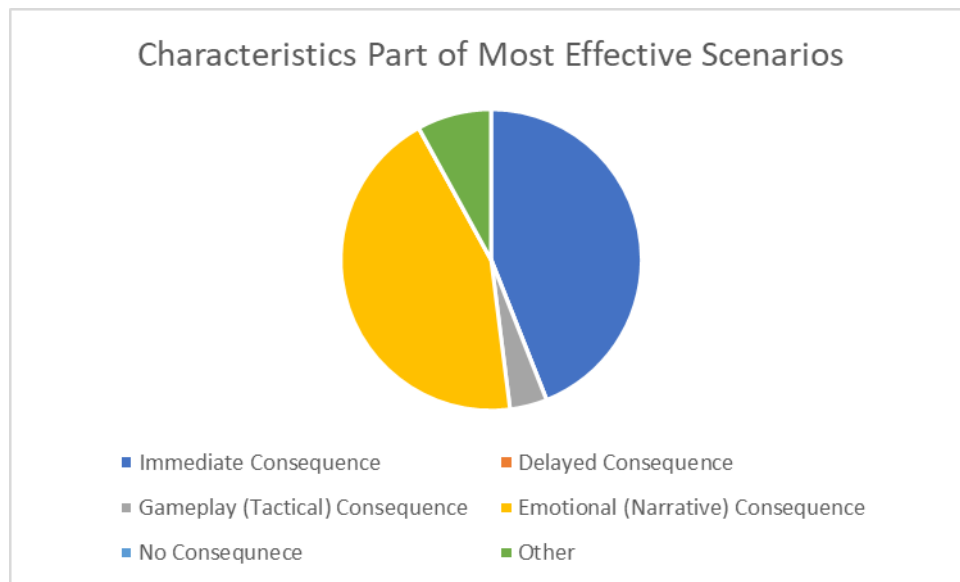
Appendix F – What scenario in the game was the most meaningful/Impactful.

What scenario in the game, if any, did you find the most impactful/meaningful?

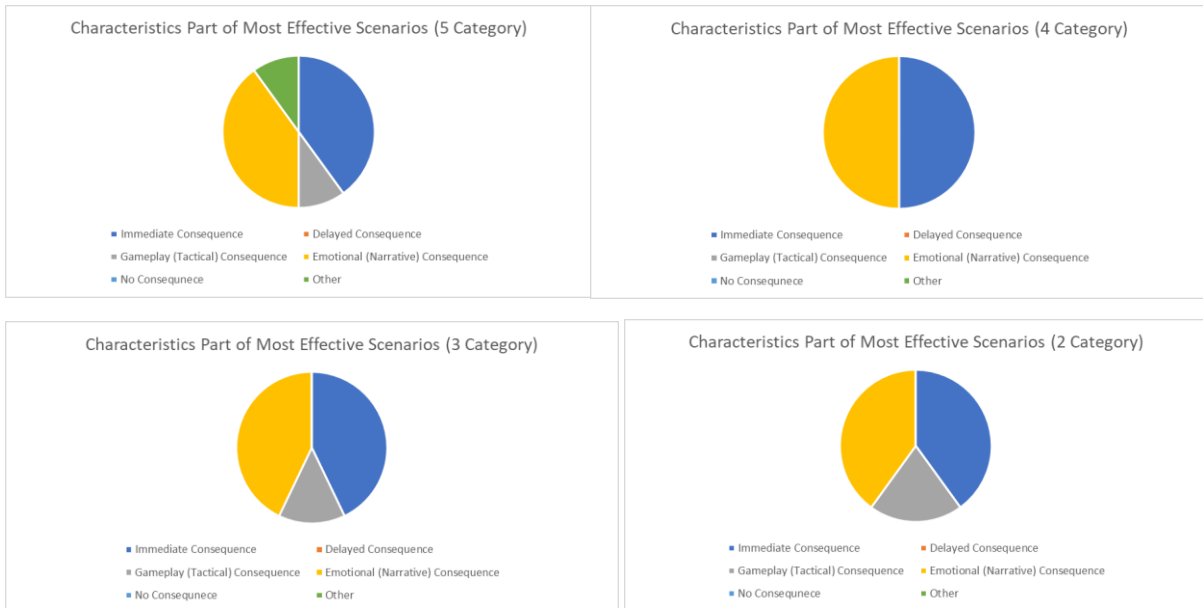
12 responses



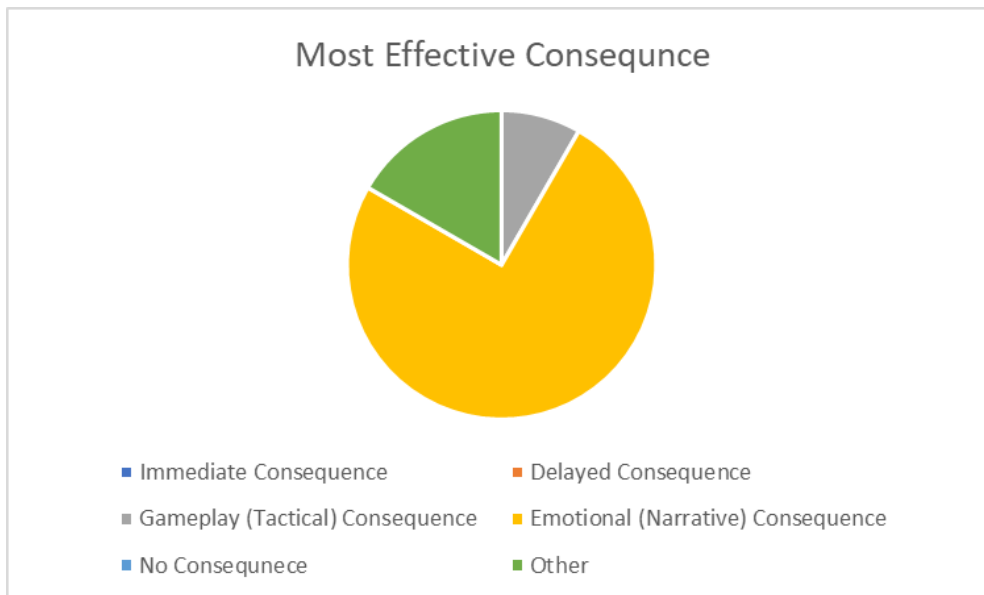
Appendix G – What types of consequence was included in the scenarios cited as most meaningful.



Appendix H - Types of consequence included in the scenarios cited as most meaningful across tester clusters.



Appendix I – Most effective type of consequence



Appendix J – A table of all data gathered from the survey.

Tester	Narrative Game Enjoyment	What makes an Entertainment Experience Meaningful?	Most Meaningful/Impactful Scenario	Types of Consequence Used	Why Was That Scenario Meaningful/Impactful	Deducted Cause
Emily D	5	Characters/plot.	Abused Workers	Immediate, Emotional	It's sad	Emotional Consequence
Josh H	5	strong character relationships, Personal identification, meaningful choices.	Security Post Dea	Immediate, Emotional	This choice had the largest scale of consequence. My consequence was small but the perception of what could happen was greater . Normally a few lives were at risk but the final choice of joining the rebellion could have started a giant war .	Emotional Consequence
Rowan B	5	Immersion, good believable characters, moral choices that make you think, something that keeps your interest after the fact.	Civilian Shuttle	Immediate, Tactical, Emotional	Because it had good consequences for your actions, making you lose your shuttle if used, which then later on could have been used in a different situation .	Tactical Consequence
Owen H	5	What makes a work meaningful is unique to that work. I do not feel I can give a general answer to the question.	None	None	A lack of context within the game's world as to why I should consider one choice over another I already have a predisposition for. What happens based on my actions also felt random at times, as if I had flipped a coin to determine the outcome.	N/A
Thomas R	5	Good storyline where actions have consequences and good characters whom have clear personalities and agendas, making them come alive. That is good entertainment. Also Formula 1 is entertainment with the risk of the drivers crashing giving it impact and so F1 is good.	Security Post Dea	Immediate, emotional	It made you think about the actions you took to get there then gave you choices that would impact the future of your character . For example, you could arrest the dirty terrorists but you lose Lieutenant Ashton , whom runs away to the outer rim, leaving the navy.	Emotional Consequence
Giacomo R	4	Questions are simple, but answers are not. (ie: when something seems very clear but ethically difficult to choose).	Abused Workers	Immediate, Emotional	I found it meaningful because I really wanted to help them but I could not promise anything because it was not in my jurisdiction.	Emotional Consequence
Elliot T	4	Characters who you grow to relate to.	Security Post Dea	Immediate, Emotional	The conversation enlightened me to a lot of lore about the setting and as I discovered it last I realised how my own actions had impacted the setting already which allowed me to relate to the decision more strongly.	Emotional Consequence
Patrick R	3	The power to choose your own path.	Security Post Dea	Immediate, Emotional	It allowed me to choose if I wanted to stay fighting for the government or take my own path in fighting against the government .	Emotional Consequence
Samm B	3	Keeping me immersed for the whole duration.	Civilian Shuttle	Immediate, Tactical, Emotional	Because it was the first scenario within the game and my whole attention was on it while learning about the game.	None
Nathan T	3	It's ability to connect with the viewer and make them feel as though they are involved or there.	Abused Workers	Immediate, Emotional	Knowing the humane and right choice to make "arresting the overseer" and what the right political choice was "Returning the workers", made it feel like an internal battle on which to choose.	Emotional Consequence
André S	2	Gives you a relatable situation and makes you think.	Civilian Shuttle	Immediate, Tactical, Emotional	Even if you try to save someone sometimes there destiny is already set and you just need to be able to handle it and move on.	Emotional Consequence
Oscar G	2	The results of our acts.	Abused Workers	Immediate, Emotional	This is an impactful scenario because slavery is the worst situation out of all the one we come across .	Emotional Consequence

6.0 - BIBLIOGRAPHY

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