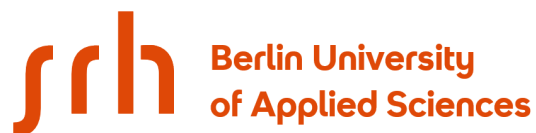


Quantic Foundry's nine gamer types and their association with narrative preferences

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by

Sofia Sabarini

**(Previously obtained) Media and Communication Management
(B.A.), Macromedia Hochschule Berlin**

Primary Thesis Supervisor:
Associate Thesis Supervisor:

Prof. Dr. Jens Junge
Sigrid Peuker

ABSTRACT

The current pandemic has caused the need for diverse games to rise – and while there are many research papers about which game genres, game features or game rules are preferred to help game companies shape the best content, there's little to be found about game narrative preferences. Thus, this explorative thesis focuses on identifying what kind of main characters, settings, villains, moods, story structures, perspectives and narrators are favoured by different kinds of gamers. In order to categorize them, the Quantic Foundry gamer type quizzes are used, which reveal what drives users to play games and which Quantic Foundry gamer archetypes (Acrobat, Gardener, Slayer, Skirmisher, Gladiator, Bounty Hunter, Bard, Architect or Ninja) they align with. After posting an online survey focusing on narrative preferences, 457 submissions were collected, and the narrative preferences of users with either of the nine primary Quantic Foundry gamer types identified – providing another perspective on player behaviour for the scientific field or a guideline for game developers. However, it has been observed that within a group of users sharing the same primary Quantic Foundry gamer type (e.g., Acrobats), some questions weren't answered unanimously – votes scattering across multiple choice options instead. The most likely reason for that is because some gamers can also have a secondary Quantic Foundry gamer type (e.g., Acrobats/Slayers), hinting towards narrative preferences differing within a group of gamers sharing a same primary type and that its presence has a heavier impact. Due to the scope of the thesis, this assumption can't be tested – giving opportunity for further research into the game narrative field, in relation to the Quantic Foundry gamer types instead.

Keywords: Game narrative preferences, Quantic Foundry, gamer types, motivational drives

TABLE OF CONTENTS

ABSTRACT	i
TABLE OF CONTENTS	ii
LIST OF FIGURES.....	vii
LIST OF TABLES.....	viii
LIST OF ABBREVIATIONS.....	ix
1. INTRODUCTION	1
1.1. Subject relevance	1
1.2. Own interest/motivation	2
1.3. Research gap	3
1.4. Objectives and research questions	4
1.5. Limitations & scope.....	5
1.6. Impact on the industry	6
1.7. Significance for the scientific field.....	6
1.8. Structure/Overview	6
2. LITERATURE REVIEW & THEORETICAL FRAMEWORK.....	8
2.1. Literature review - "Games for Health".....	8
2.2. Theoretical framework - Quantic Foundry	9
2.2.1. The motivation model and quiz.....	9
2.2.2. The 12 motivational drives.....	12
2.2.2.1. The destruction motivation.....	12
2.2.2.2. The excitement motivation.....	12
2.2.2.3. The competition motivation	13
2.2.2.4. The community motivation	14
2.2.2.5. The challenge motivation.....	14
2.2.2.6. The strategy motivation.....	15
2.2.2.7. The completion motivation	16
2.2.2.8. The power motivation	16
2.2.2.9. The fantasy motivation.....	17

2.2.2.10.	The story motivation.....	18
2.2.2.11.	The discovery motivation	18
2.2.2.12.	The design motivation	19
2.2.3.	Quantic Foundry's nine gamer types.....	20
2.2.3.1.	The Acrobat gamer type.....	20
2.2.3.2.	The Gardener gamer type.....	21
2.2.3.3.	The Slayer gamer type.....	21
2.2.3.4.	The Skirmisher gamer type	22
2.2.3.5.	The Gladiator gamer type.....	22
2.2.3.6.	The Bounty Hunter gamer type.....	23
2.2.3.7.	The Bard gamer type	23
2.2.3.8.	The Architect gamer type.....	24
2.2.3.9.	The Ninja gamer type.....	24
2.3.	Theoretical framework - narrative preferences.....	25
2.3.1.	Characters	26
2.3.1.1.	Player-Character types	26
2.3.1.2.	Differences between a protagonist and a viewpoint-character.....	27
2.3.1.3.	Arc types	28
2.3.1.4.	Villain motive types	28
2.3.1.5.	Active or passive villain types	29
2.3.2.	Story	29
2.3.2.1.	Story focus types	29
2.3.2.2.	Narrative branching types	30
2.3.2.3.	Performance types	31
2.3.2.4.	Conflict types	32
2.3.2.5.	Ending types.....	32
2.3.3.	Perspectives and narrators	32
2.3.3.1.	Perspective types	32
2.3.3.2.	Narrator types.....	33

2.3.4.	Settings	34
2.3.5.	Game genres	35
3.	METHODOLOGY	36
3.1.	The selected methods.....	36
3.1.1.	Expert interviews.....	36
3.1.2.	Surveys	37
3.2.	Application of methods in previous studies.....	39
3.3.	What do they explore/how is it useful for the research gap?.....	41
3.4.	Application of methods and their limitations	41
3.4.1.	Application of expert interviews	41
3.4.2.	Application of survey	42
4.	FINDINGS.....	45
4.1.	Expert Interviews.....	45
4.1.1.	Participant A's perspective.....	45
4.1.2.	Participant B's perspective	46
4.2.	Online survey.....	47
4.2.1.	Overview of gamer types.....	47
4.2.2.	Character preferences	48
4.2.2.1.	Main character preferences	48
4.2.2.2.	Villain preferences	50
4.2.3.	Setting and mood preferences	52
4.2.3.1.	Setting preferences	52
4.2.3.2.	Mood preferences.....	54
4.2.4.	Story structure preferences	55
4.2.5.	Perspective and narrator preferences.....	57
4.2.5.1.	Perspective preferences.....	57
4.2.5.2.	Narrator preferences.....	57
4.2.6.	Genre preferences	59
5.	DISCUSSION OF FINDINGS & CONCLUSION	60
5.1.	Discussion of expert interviews findings.....	60
5.2.	Discussion of survey findings.....	60
5.2.1.	Acrobat gamer types.....	61
5.2.2.	Gardener gamer types.....	64

5.2.3. Slayer gamer types.....	66
5.2.4. Skirmisher gamer types	68
5.2.5. Gladiator gamer types.....	70
5.2.6. Bounty Hunter gamer types.....	72
5.2.7. Bard gamer types	74
5.2.8. Architect gamer types.....	76
5.2.9. Ninja gamer types.....	78
5.3. Conclusion and potential for further research.....	80
5.4. Impact on industry/society.....	81
5.5. Lessons learned and limitations.....	81
ALPHABETICAL LIST OF REFERENCES.....	83
REFERENCE LIST BY BIBLIOGRAPHY TYPE.....	87
APPENDIX I.....	91
APPENDIX II	237
DECLARATION OF CONSENT FOR PLAGIARISM SCREENING	403
AFFIDAVIT	405

LIST OF FIGURES

Figure 1: Quantic foundry motivation model.....	9
Figure 2: Motivation quiz questions.....	10
Figure 3: Motivation model quiz example results.....	10
Figure 4: The destructive motivation scale.....	12
Figure 5: The excitement motivation scale.....	13
Figure 6: The competition motivation scale.....	14
Figure 7: The community motivation scale.....	14
Figure 8: The challenge motivation scale.....	15
Figure 9: The strategy motivation scale.....	16
Figure 10: The completion motivation scale.....	16
Figure 11: The power motivation scale.....	17
Figure 12: The fantasy motivation scale.....	17
Figure 13: The story motivation scale.....	18
Figure 14: The discovery motivation scale.....	19
Figure 15: The discovery motivation scale.....	19
Figure 16: Gamer type quiz result.....	20
Figure 17: Linear narrative type.....	30
Figure 18: Branching narrative type.....	31
Figure 19: Open narrative type.....	31
Figure 20: First person perspective.....	33
Figure 21: Third person perspective (player-character on the left).....	33
Figure 22: Game setting options.....	34
Figure 23: Main character and protagonist preferences (SCQ).....	48
Figure 24: Player-character type preferences (MCQ).....	49
Figure 25: Main character arcs preferences (MCQ).....	49
Figure 26: Main character traits preferences (SCQ).....	50
Figure 27: Villain behaviour preferences (MCQ).....	50
Figure 28: Passive- or active villain preferences (SCQ).....	51
Figure 29: Villain arcs preferences (MCQ).....	51
Figure 30: Villain traits preferences (SCQ).....	52
Figure 31: Setting preferences (MCQ).....	52
Figure 32: Setting preferences I (MCQ).....	53
Figure 33: Setting preferences II (MCQ).....	53

Figure 34: Mood preferences I (MCQ).....	54
Figure 35: Mood preferences II (MCQ).	54
Figure 36: Conflict type preferences (MCQ).	55
Figure 37: Story focus type preferences (MCQ).	55
Figure 38: Narrative branching preferences (MCQ).	56
Figure 39: Story ending preferences (SCQ).	56
Figure 40: In-Game perspective preferences (MCQ).....	57
Figure 41: Narrator presence preferences (MCQ).....	57
Figure 42: Narrator type preferences (MSQ).	58
Figure 43: Presentational/Representational experience preference (SCQ).	58
Figure 44: Inclusion of magic type preferences (MCQ).....	59
Figure 45: Inclusion of religion preference (MCQ).	59

LIST OF TABLES

Table 1: Acrobat motivation scores.....	21
Table 2: Gardener motivation scores.....	21
Table 3: Slayer motivation scores.	22
Table 4: Skirmisher motivation scores.	22
Table 5: Gladiator motivation scores.....	23
Table 6: Bounty Hunter motivation scores.....	23
Table 7: Bard motivation scores.	24
Table 8: Architect motivation scores.....	24
Table 9: Ninja motivation scores.....	25
Table 10: Overview of participant's gamer types (SCQ).....	47

LIST OF ABBREVIATIONS

Acronym	Explanation
H	Hypothesis
MC	Main character
MCQ	Multiple-choice question
MMOs	Massively multiplayer online
MOBA	Multiplayer online battle arena
NPCs	Non-player character
QF	Quantic Foundry
RPGs	Role-playing game
RQ	Research question
SCQ	Single-choice question
SPSS	Statistical package for the social sciences
STEM	Science, technology, engineering, and mathematics
SWOT	Strengths, weaknesses, opportunities, and threats

1. INTRODUCTION

1.1. Subject relevance

While the corona pandemic has caused many industrial disruptions during 2020, not all of them turned out to be negative - especially from the perspective of the game industry, according to the third largest marketing research company called Ipsos¹. Their recent published report, called "Video Gaming in Lockdown", starts off with monetary aspects such as an increase in sales². More importantly, the insights also reveal that video games have developed into a supporting pillar during the lockdowns, helping individuals deal with loneliness and anxiety, enabling family members to connect via online games and reassuring parents, who confirmed that their children are having a better learning experience through gaming³.

It is highly presumed that the COVID-19 lockdown will continue throughout 2021 and that people will still be in need of entertainment, distraction, and education⁴. That also means that the needs and demands for games will continue to rise, which is why it's important to make sure that there are games for everybody. No product fits all players. To ensure the best gaming experience possible for each kind of gamer, the first step begins with figuring out what their preferences are. It should be pointed out, when talking about players or gamers during this thesis, that any individuals are meant who enjoy and spend time playing video games – regardless of whether they do so frequently, infrequently, as a hobby, professionally, or on PC, console or mobile.

How can different players be identified? And what are their preferences regarding game-related topics such as genres, designs, or features? Luckily, organizations such as Quantic Foundry have made it their mission to figure out what drives people to play games to begin with – specifically by identifying 12 different motivational drives and basing a motivational model and nine gamer archetypes on them⁵. Whether one is playing games for the adrenaline rush, educational purposes or just to relax - by simply completing a 5-minute test on the Quantic Foundry website, the user can learn what drives them to play video games, i.e., their motivational drives, which gamer type they align with, their gameplay styles and more⁶.

¹ Cf. Mena, E., Cook, N., & Davies, J., 2020, Pg. 2

² Cf. Ibid, Pg. 29

³ Cf. Ibid, Pg.3

⁴ Cf. Ibid

⁵ Cf. Yee & Ducheneaut, n.d.a

⁶ Cf. Yee, N., 2020

When referring to gameplay style, how the player interacts with the game's mechanics, i.e., the rules of the game, challenges, and stories are meant⁷.

Such material is incredibly useful to understand player-behaviour, mainly because it helps adjust gaming-related content to consumers' preferences. Some companies have even begun using the Quantic Foundry motivational model to focus on customers' motivational drives, instead of their sociodemographic factors⁸.

And while Quantic Foundry's reports cover many aspects as mentioned before, one area that's been kept brief was players' **game narrative preferences**, i.e., the elements that make up a story⁹. The user reports only show how each of the nine gamer archetypes rate the importance of story – but details such as what kind of main characters, villains, or settings they'd prefer, are not revealed. The scenario repeats itself when looking into similar organisations such as GameRefinery – who also have their own gamer motivational model, gamer archetypes and various reports on users' game-related preferences. But there too, insights about users' narrative preferences were kept short – hinting towards a potential unexplored topic, which will later be investigated during the research gap chapter¹⁰.

Thus, the purpose of this master thesis is to identify the narrative preferences of gamers in correlation to their QF gamer type. To do that, the thesis will focus on answering the following research question: Which narrative elements of digital games are preferred by the nine primary Quantic Foundry gamer types?

1.2. Own interest/motivation

The reason for choosing this topic for the master thesis, is due to a personal interest in narrative elements and video games. While studying game development on the side, the goal is to create story-orientated projects at some stage in the future. To do that, understanding the narrative preferences of one's potential target group is vital, followed by shaping products according to their tastes.

The same fascination applies to the motivational model by Quantic Foundry, which was discovered during the second semester of the entrepreneurial studies. While having previously only used sociodemographic assessments to segment customers, using motivational drives instead seemed like an intriguing alternative – even more so, after

⁷ Cf. Heussner, T., Finley, T. K., Hepler, J. B., & Lemay, A., 2015, Pg. 241

⁸ Cf. Yee & Ducheneaut, n.d.b

⁹ Cf. Heussner, T., Finley, T. K., Hepler, J. B., & Lemay, A., 2015, Pg. 240

¹⁰ Cf. Julkunen, J., 2020

corresponding with marketing managers working in the game industry, who have shared their own positive experiences from using the QF models.

1.3. Research gap

One of the scientific fields closest to the game industry is game user research – understanding player's psychology and behaviour through methods such as playtesting, expert analysis, or others¹¹. However, there are no scientific papers that deal specifically with QF gamer types and their narrative preferences.

Existing studies are only indirectly related – focusing either on another motivational model and their relation to players' game-related preferences, or alternatively on narrative preferences, but in connection to gamers' sociodemographic backgrounds.

To emphasize this, here are a few examples of scientific studies found during the preliminary literature review:

- “Which narrative design elements of digital games are preferred by the general adolescent population and what are the associations with gender, socioeconomic status, and gameplay frequency?” by Games for Health¹². The study acts as an example to identify gamers' narrative preferences in detail by using surveys - but in relation to the participants' sociodemographic factors, not their motivational drives.
- „Player Preferences and Motivations Across Gender and Genre” by Christine Tomlinson, which analysed to what extent player motivation and game preferences differ depending on one's gender – the narrative aspects were only briefly mentioned¹³.
- “Personality & Game Design Preference: Towards Understanding Player Engagement and Behavior” by Kourtne H. Andrus, which focused on exploring the relationship between game design preferences and personality traits using the HEXACO model. During the game design section, narrative preferences were explored as well – however because the HEXACO model was used, the focus was on personality traits and not motivational drives¹⁴.

¹¹ Cf. Drachen, A., Mirza-Babaei, P., & Nacke, L. E., 2018, Pg.1ff

¹² Cf. Schwarz, et al., 2019, Pg. 195

¹³ Cf. Tomlinson, C., 2019, Pg. 1

¹⁴ Cf. Andrus, K. H., 2018, Pg. 2

- “Differences in students’ stem identity, game play motivations, and game preferences” by Kathleen S. Jeremiassen¹⁵. The author also explores game preferences in relation to motivational drives, by using the older versions of Nick Yee’s motivation concepts from 2005 – he is the one who later founded Quantic Foundry and the motivational model in 2015¹⁶. But the narrative preferences weren’t the focus, only being briefly mentioned when asking participants which game genres they’d prefer¹⁷.

While the studies do incorporate separate elements of the thesis, none of them combine the two concepts together, indicating a scientific gap. However, they all use a common methodology when gathering empirical data – by conducting surveys, which this thesis will follow.

In addition to that, the structure of the previously mentioned scientific papers can also be used as blueprints or guidelines – as both the thesis and the other papers aim to identify a game-related preference in relation to a psychological model.

Thus, the aim of the thesis in the scientific-context will be to enable a different perspective on player behaviour – with a focus on narrative preferences and in connection to QF’s gamer types. It should be noted, that due to no data existing on the topic so far, this thesis needs to be labelled as an explorative one.

1.4. Objectives and research questions

The research aim is to identify which narrative elements are preferred by gamers of either of the nine primary QF types. It is also to be examined whether players sharing the same primary QF gamer type, will have similar preferences amongst themselves – mainly because sometimes gamers also have an additional secondary one, which will be explained later during the theoretical framework. Based on that, the thesis’s research questions are:

- **RQ1:** Which narrative elements of digital games are preferred by the nine primary Quantic Foundry gamer types?
- **RQ2:** To what extent are the narrative preferences shared by users with the same primary Quantic Foundry gamer types?

¹⁵ Cf. Jeremiassen, K. S., 2018, Pg. V

¹⁶ Cf. Ibd, Pg. 29

¹⁷ Cf. Ibd, Pg. 43

The hypotheses that the thesis plans to test are:

- **H1:** The preferred narrative elements of digital games differ per primary gamer type.
- **H2:** Gamers who share the same primary QF gamer type, will have similar narrative preferences.

To answer the research questions and test the hypotheses, the author will use the online platform Unipark, enabling the creation of online surveys, data collection, analysis, and interpretation¹⁸. The reason why Unipark specifically, is due to its recognition in Germany and common use in dissertations¹⁹.

In addition to that, expert interviews will also be conducted to understand the current stance of the game industry towards motivational models, specifically the Quantic Foundry one – but more to that during the methodology part of the thesis.

1.5. Limitations & scope

The first limitation regards the lack of scientific studies, elaborated during the research gap chapter. Because there are no pre-existing data, there is nothing to compare the gained insights with.

The second limitation focuses on using the QF model – one of the reasons why it was chosen instead of another motivational model, such as the one from GameRefinery, was because QF offered an online test on their website. Other platforms showcasing their own concepts and archetypes, didn't have a publicly accessible test for users to take²⁰. Selection was therefore limited - conducting the thesis without an already-existing gamer type test and creating one from scratch instead, would have gone beyond the scope of the thesis.

The third limitation focuses on the QF test itself – the website explains that their data is based on over 450,000 players, but the methodology to potentially recreate the results are not provided – giving a sense of uncertainty regarding its reliability and validity.

The fourth limitation is that any insights gained throughout this thesis will only be usable for those who apply the QF concepts in their work. The process would need to be repeated for other organisations, who want to know the narrative preferences of their own archetypes.

¹⁸ Cf. Unipark, n.d.

¹⁹ Cf. Ibid

²⁰ Cf. Yee, N., & Ducheneaut, N., n.d.a

The fifth limitation is connected to the survey – to see how the narrative preferences differ between gamers with certain primary gamer types, the survey needs to incorporate questions about both areas. As it is not possible to embed the QF test in the online survey, participants will be asked to complete it separately on the QF website, before starting the provided survey about narrative preferences – which will impact the completion rate.

Lastly, to ensure a defined scope, the thesis will focus on the nine primary Quantic Foundry gamer types. All gamers have a primary gamer archetype, but sometimes they may also have a secondary one. If gamers with a primary and secondary type are considered their own unique archetype, it would lead to 81 combinations of possible gamer types. Identifying and analysing each of their narrative preferences will not be possible within the given scope of the thesis. Additionally, no research exists that identifies to what extent the narrative preferences differ between gamers sharing the same primary type, but different secondary ones. Thus, the focus will remain on how the narrative preferences differ between players with either of the nine primary gamer types – regardless of whether they have a secondary type or not. However, this will be elaborated further during the theoretical framework. Should extra insights be gathered about gamers with an additional secondary type and its influence on their narrative preferences during the methodology chapter, they will be added in the appendix II for further reading or as a reference for further research.

1.6. Impact on the industry

Companies who already use the QF model can apply the insights gained to adjust and tune the narrative aspects of their own games – making it more appealing to their audience's tastes and ensuring an optimal gaming experience.

1.7. Significance for the scientific field

Insights gained can contribute to game user research, which as mentioned before, focuses on understanding player's psychology and behaviour through methods such as playtesting²¹. While other studies exist, this thesis will act as another perspective to observe player behaviour from – with a strong focus on narrative preferences.

1.8. Structure/Overview

To answer the research questions and test the hypotheses, the thesis will begin with a literature review, showcasing one of the earlier mentioned papers to serve as a blueprint.

²¹ Cf. Drachen, A., Mirza-Babaei, P., & Nacke, L. E., 2018, Pg.1ff

After that, the theoretical framework follows, where the QF concepts, models and gamer archetypes are explained. Once an understanding of the QF theories is established, the concepts of narratives follow, going into different main characters, villains and setting types, concluding the theoretical framework. Then begins the methodology chapter, focusing on research design, analytic methodology employed & reason for choice, followed by findings, discussion of findings and the conclusion.

2. LITERATURE REVIEW & THEORETICAL FRAMEWORK

2.1. Literature review - "Games for Health"

Before explaining the QF theories and narrative preferences, one of the earlier mentioned studies during the research gap chapter, called "Games for Health", will now be described in more detail – mainly because its structure acts as a guideline, has a strong focus on narrative preferences and initially inspired this thesis. Another useful aspect are the survey questions, who play a role later during the methodology chapter.

To summarize, the study called "Games for Health" investigated the following in 2019: which narrative elements of digital games are preferred by the general adolescent population and what are the associations with gender, socioeconomic status, and gameplay frequency²². The purpose of the study was to use the insights gained and translate them into serious games about health awareness, aiming to make them more appealing for their consumers.

Their methods consisted of conducting on-site surveys with 446 adolescents from 15 schools, aged 12 to 15²³. The questions focused on sociodemographic factors such as age or gender, how frequently they played games, and lastly, open-ended questions about their narrative preferences, concentrating on characters, location, conflict, time, mood, and atmosphere²⁴. The results were then analysed through a mixed-methods approach, using thematic- and chi-square analysis²⁵. Some of the gained insights were²⁶:

- Human characters as protagonists were mostly preferred by all
- Girls and infrequent players liked to define their characters by their age
- Adolescents of non-academic education, more often than adolescents of academic education, defined characters by criminal actions.

The research concluded that the customization of narratives in serious digital health games should be warranted for boys and girls. It does mention nonetheless that the narrative preferences of girls or infrequent players could not be as deeply explored as the others²⁷.

²² Cf. Schwarz, et al., 2019, Pg. 195

²³ Cf. Ibd

²⁴ Cf. Ibd, Pg. 197

²⁵ Cf. Ibd, Pg. 195

²⁶ Cf. Ibd, Pg. 200

²⁷ Cf. Ibd, Pg. 195

After reading the study, the following questions came up: what if the same study was conducted to fill the gap in Quantic Foundries reports, by replacing the sociodemographic with the motivational model aspect and finding the relation to narrative preferences? And would there be a way to avoid the exclusion of infrequent players and female players? That will be elaborated in the next part, where Quantic Foundry concepts are examined.

2.2. Theoretical framework - Quantic Foundry

As mentioned during the introduction, Quantic Foundry is a market research company, that focuses on understanding gamer motivations, i.e., what drives gamers to play video games – by combining social science with data science. It was founded by Nick Yee and Nicolas Ducheneaut in 2015, though they've been working together on motivational-related topics since 2005²⁸. Their most-known innovation is the motivational model – a table identifying the 12 main forces that drive people that play games, based on empirical data of over 450,000 players²⁹. The upcoming section explains what it consists of and represents.

2.2.1. The motivation model and quiz



Action "Boom!"	Social "Let's Play Together"	Mastery "Let Me Think"	Achievement "I Want More"	Immersion "Once Upon a Time"	Creativity "What If?"
Destruction Guns. Explosives. Chaos. Mayhem.	Competition Duels. Matches. High on Ranking.	Challenge Practice. High Difficulty. Challenges.	Completion Get All Collectibles. Complete All Missions.	Fantasy Being someone else, somewhere else.	Design Expression. Customization.
Excitement Fast-Paced. Action. Surprises. Thrills.	Community Being on Team. Chatting. Interacting.	Strategy Thinking Ahead. Making Decisions.	Power Powerful Character. Powerful Equipment.	Story Elaborate plots. Interesting characters.	Discovery Explore. Tinker. Experiment.

Figure 1: Quantic foundry motivation model³⁰.

The above image depicts the motivation model. Each of the 12 motivations can be grouped into one of the six clusters such as action, social, mastery, etc., giving a general impression for what they stand for. By conducting a 5-minute test with 48 questions on Quantic Foundry's website, players can quickly find out what their motivational drives are for playing games³¹. The questions themselves start off with demographic ones, such as age and

²⁸ Cf. Yee & Ducheneaut, n.d.a

²⁹ Cf. Ibid

³⁰ Ibid

³¹ Cf. Ibid

gender, as well as gameplay frequency, i.e., how often they play video games. It then transitions to the main part, where players are asked to rate which game-related elements they find either most important or most enjoyable³². Here are some examples, while the complete quiz can be found in the appendix:



Figure 2: Motivation quiz questions³³.

After the user finishes the quiz, the result page indicates their scores for each of the 6 clusters or 12 motivational drives, followed by what the numbers mean³⁴. The next image depicts a possible outcome of the quiz and how the results are presented:

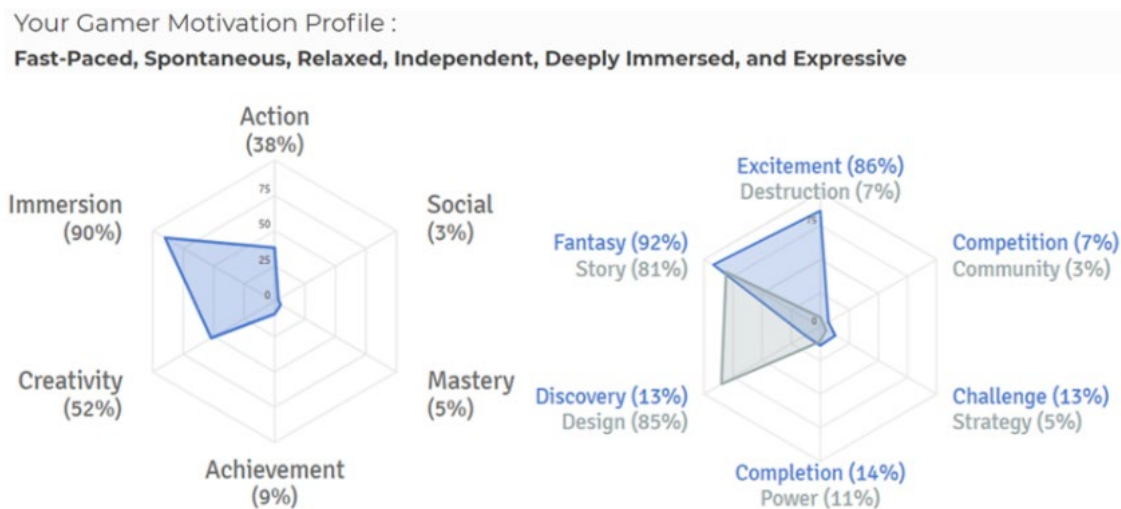


Figure 3: Motivation model quiz example results³⁵.

The grid on the left only showcases how much one scored in the clusters; one cluster being the sum of its two subcategorized motivational drives (e.g., immersion cluster score = fantasy motivation scores + story motivation scores). The cluster scores mean the following:

³² Cf. Quantic Foundry, n.d.a

³³ Ibid

³⁴ Cf. Quantic Foundry, n.d.b

³⁵ Ibid

- **Action cluster** (excitement motivation + destruction motivation)³⁶:
 - If users score more than 50,0%: users enjoy aggressive playstyles, jumping into the fray and being surrounded by dramatic visuals and effects.
 - If users score less than 50,0%: prefer low action, slow-paced, calmer settings.
- **Social cluster** (competition motivation + community motivation)³⁷:
 - If users score more than 50,0%: users enjoy interacting with other players, regardless of whether it is for collaborative or competitive purposes.
 - If users score less than 50,0%: users prefer solo gaming experiences, where they can take actions or make decisions independently.
- **Mastery cluster** (challenge motivation + strategy motivation)³⁸:
 - If users score more than 50,0%: users prefer challenging gaming experiences, with strategic depth and complexity.
 - If users score less than 50,0%: users prefer games that are forgiving towards mistakes, accessible and spontaneous.
- **Achievement cluster** (completion motivation + power motivation)³⁹:
 - If users score more than 50,0%: users prefer games with collectibles and rare items, even if it means grinding for a while.
 - If users score less than 50,0%: users have a more relaxed attitude, don't take in-game achievements too seriously and don't worry about their scores either.
- **Immersion cluster** (fantasy motivation + story motivation)⁴⁰:
 - If users score more than 50,0%: users prefer games with interesting narratives, characters, settings, and to immerse themselves into a new world.
 - If users score less than 50,0%: users prefer games that ground them and don't pay much attention to the narrative experience the game has to offer.
- **Creativity cluster** (discovery motivation + design motivation)⁴¹:
 - If users score more than 50,0%: users prefer continuously experimenting with the game's world, customizing it with their own designs.
 - If users score less than 50,0%: users prefer a more practical approach, accepting the game as it is and don't spend time changing any aesthetics.

³⁶ Cf. *Ibd*

³⁷ Cf. *Ibd*

³⁸ Cf. *Ibd*

³⁹ Cf. *Ibd*

⁴⁰ Cf. *Ibd*

⁴¹ Cf. *Ibd*

While the explanations improve the interpretation of the left grid of figure 3, the clusters are still the result of two combined motivational scores. Thus, the next section focuses on reviewing the 12 motivations individually, to enhance the understanding of the right grid in figure 3⁴².

2.2.2. The 12 motivational drives

2.2.2.1. The destruction motivation

The destruction motivation is part of the action cluster. Scoring high (> 50,0%) in this segment, signifies that the user enjoys chaos and destruction while playing games – either by blowing up destructible objects in the environment or by just being able to cause mayhem⁴³. That's why tools such as guns or explosives are always found in games that pursue this motivation - Call of Duty or Battlefield being two of them. Another common hint that indicates a high destructive motivation, is by observing whether the players showcase innovative ways to get their creations killed while playing the Sims⁴⁴.

Scoring low (< 50,0%) on the destruction motivation, hints towards users preferring games with minimal explosive weapons, if any at all, and no gore. They rather enjoy a serene atmosphere instead, which can be found in games like Animal Crossing or Harvest Moon⁴⁵. A summary of the two conditions can be showcased in the below illustration:



Figure 4: The destructive motivation scale⁴⁶.

2.2.2.2. The excitement motivation

The excitement motivation is also part of the action cluster. If users score high in this area, it signifies that they enjoy fast-paced and intense games, with a constant adrenaline rush⁴⁷. The gameplay should be full of surprises, action, and thrills, rewarding the player for reacting

⁴² Cf. Ibid

⁴³ Cf. Quantic Foundry, n.d.c, Pg. 20

⁴⁴ Cf. Ibid, Pg. 13

⁴⁵ Cf. Ibid, Pg. 20

⁴⁶ Ibid, Pg. 13

⁴⁷ Cf. Ibid

quickly to unpredictable events. Such experiences are usually found in games like Super Smash Bros or Street Fighter.

Scoring low on the excitement motivation, indicates that the player primarily plays games to relax and tends towards a predictable gameplay experience, which can be paused at any time, and is most likely turn-based⁴⁸. A popular example would be Civilization or Myst⁴⁹. A summary of the two conditions can be showcased in the following illustration:



Figure 5: The excitement motivation scale⁵⁰.

2.2.2.3. The competition motivation

The competition motivation is part of the social cluster. A higher score showcases that the user enjoys competing against another player in forms of duels, matches or team-vs-team scenarios⁵¹. The competition aspect doesn't limit itself to just that, but also extends to other scenarios where players wish to be acknowledged either through a ranking system or by their teammates. Examples of games where these conditions are met are StarCraft or League of Legends⁵².

Scoring low on the competitive motivation on the other hand, indicates that the user enjoys non-competitive games. If duelling scenarios are inescapable, they should at least avoid making the players go against each other - and instead have them battle artificial intelligence-controlled competitors instead⁵³. Ranking systems are also preferably avoided. Games who fulfil such demands are for example Dragon Age II or Gone Home⁵⁴. A summary of the two conditions can be showcased in the following illustration:

⁴⁸ Cf. Ibd, Pg.20

⁴⁹ Cf. Ibd

⁵⁰ Ibd

⁵¹ Cf. Ibd, Pg. 14

⁵² Cf. Ibd

⁵³ Cf. Ibd, Pg. 20

⁵⁴ Cf. Ibd



Figure 6: The competition motivation scale⁵⁵.

2.2.2.4. The community motivation

The community motivation is also part of the social cluster. Scoring high in this section shows that the user enjoys socializing or collaborating with others while gaming⁵⁶. That can involve in-game chatting, creating teams, or just generally working together towards a common goal, strongly contrasting from the competitive motivation. For such players, games are a way of maintaining social networking – examples that fulfil these criteria are Portal 2 or Final Fantasy XIV⁵⁷.

Having a lower community score, hints towards the user being more of a single-player gamer, preferring to complete quests by themselves and being independent of others. Game examples that would suit these preferences, are Lego Harry Potter or Hatoful Boyfriend⁵⁸. A summary of the two conditions can be showcased in the following illustration:



Figure 7: The community motivation scale⁵⁹.

2.2.2.5. The challenge motivation

The challenge motivation is part of the mastery cluster. Scoring high showcases that the player enjoys a challenge, especially when the success rate is heavily dependent on their skills and abilities⁶⁰. They are therefore prone to taking their time practicing and honing their gameplay style, being persistent and taking on the most difficult missions and bosses a game

⁵⁵ Ibid

⁵⁶ Cf. Ibid, Pg. 14

⁵⁷ Cf. Ibid

⁵⁸ Cf. Ibid, Pg. 20

⁵⁹ Ibid

⁶⁰ Cf. Ibid, Pg. 15

has to offer. It is also important, that difficulty settings are provided – mainly so they can choose the highest one, regardless how many times they witness a game over. Games who are known for their constant challenging experiences are for example Dark Souls or Defence of the Ancients (DotA)⁶¹.

Scoring low on the challenge motivation reveals that the user prefers straightforward gameplay mechanics, i.e., the game's rules⁶². They should be easy to learn and ideally not include any skill-dependent tasks. Examples that fulfil these criteria are Stardew Valley or Animal Crossing. A summary of the two conditions can be showcased in the following illustration:



Figure 8: The challenge motivation scale⁶³.

2.2.2.6. The strategy motivation

The strategy motivation also belongs to the mastery cluster. Users who score high on this one, enjoy games that require careful decision-making, planning and just generally thinking through their options to identify the likely outcomes⁶⁴. The decisions can be related to balancing resources, managing foreign diplomacy, or achieving long-term goals. Examples of games that offer such experiences are Crusader Kings II and, when additionally combined with tactical combat, XCOM or Fire Emblem.

If the strategy score is low, the user's preferences tend towards games that require reactive gameplay and not too much time spent thinking about decisions and their consequences⁶⁵. A game like Sims would suit these terms. A summary of the two conditions can be showcased in the following illustration:

⁶¹ Cf. Ibid, Pg. 21

⁶² Cf. Ibid

⁶³ Ibid

⁶⁴ Cf. Ibid, Pg. 15

⁶⁵ Cf. Ibid, Pg. 21



Figure 9: The strategy motivation scale⁶⁶.

2.2.2.7. The completion motivation

The completion motivation is part of the achievement cluster. If scored high during the 5-minute test, it indicates that the user enjoys finishing everything the game has to offer – missions, collectibles, or the discovery of every hidden location⁶⁷. For others it even extends to unlocking every possible achievement, character, or abilities in the game. Such features are usually offered in games like Aura kingdom or any Final Fantasy game⁶⁸.

If the completion score is low, it indicates that the user prefers to pursue their own goals and agendas, usually found in Sandbox games. RimWorld or Victoria II are good examples for that⁶⁹. A summary of the two conditions can be showcased with the following illustration:



Figure 10: The completion motivation scale⁷⁰.

2.2.2.8. The power motivation

The power motivation is also part of the achievement cluster. Users who score high, enjoy striving for power in the context of the game’s world they are in – becoming as strong as possible, either through seeking equipment or tools necessary to make it happen, by maxing out their attributes or acquiring the most dangerous weapons or artifacts⁷¹. That’s also what separates this motivation from the completion one – here, items are collected to gain power,

⁶⁶ Ibid

⁶⁷ Cf. Ibid, Pg. 16

⁶⁸ Cf. Ibid, Pg. 21

⁶⁹ Cf. Ibid

⁷⁰ Ibid

⁷¹ Cf. Ibid, Pg. 16

not necessarily to unlock everything the game has to offer. Games that pursue the power motivation experience are World of Warcraft or Diablo III⁷².

On the other hand, if the power score is low, users enjoy playing games where the character is already fully developed from the start, i.e., in their most powerful form. That can be showcased in games such as Night in the Woods or The Longest Journey⁷³. A summary of the two conditions can be showcased with the following illustration:



Figure 11: The power motivation scale⁷⁴.

2.2.2.9. The fantasy motivation

The fantasy motivation is part of the immersion cluster. Users who score higher here, want a gaming experience that allows them to become someone else in another world⁷⁵. That includes features which enable the player to explore the new settings, often found in games such as Skyrim or Fallout.

Users who have a low fantasy score on the other hand, prefer generic settings with minimal world-building or lore⁷⁶. Visually also tend towards 2D retro graphics, which is offered by games like Candy Crush. A summary of the two conditions can be showcased with the following illustration:



Figure 12: The fantasy motivation scale⁷⁷.

⁷² Cf. Ibd, Pg. 21

⁷³ Cf. Ibd

⁷⁴ Ibd

⁷⁵ Cf. Ibd, Pg. 17

⁷⁶ Cf. Ibd, Pg. 22

⁷⁷ Ibd

2.2.2.10. The story motivation

The story motivation is also part of the immersion cluster. Users who score high, enjoy and demand games with diverse storylines, multidimensional characters with in-depth backstories and deep narratives⁷⁸. These features are usually found in games such as Dragon Age or Mass Effect.

If the score is low, users find dialogue mechanics or long quests descriptions distracting, more likely to skip the segments that are meant to explain story-relevant content. Characters should therefore be kept simple and basic, with no overarching narrative – found in games such as SimCity or Transport Tycoon⁷⁹. A summary of the two conditions can be showcased with the following illustration:



Figure 13: The story motivation scale⁸⁰.

2.2.2.11. The discovery motivation

The discovery motivation is part of the creativity cluster. The users who score high in this segment, often ask themselves “what if⁸¹?”. For them, the game’s world and objects are interactable, anything can be experimented with, and the possibilities are endless. That includes swimming towards the edge of the ocean map, just to see what happens. Or testing whether crafting outcomes differ depending on the time of day or which NPCs are present in the surrounding area. Another common habit to identify a gamer that’s driven by the discovery motivation, is by their gameplay style – they will usually play a game in their own creative way, and not as the game developers intended. The Legend of Zelda or The Elder Scrolls are good examples that offer such experiences⁸².

Scoring low in discovery, indicates that users prefer games with a given, fully detailed and fixed ruleset - where there are as few to no hidden variables and interactions as possible⁸³.

⁷⁸ Cf. Ibd, Pg. 17

⁷⁹ Cf. Ibd, Pg. 22

⁸⁰ Ibd

⁸¹ Cf. Ibd, Pg. 18

⁸² Cf. Ibd, Pg. 22

⁸³ Cf. Ibd

FIFA or Scrabble are good examples of that. A summary of the two conditions can be showcased with the following illustration:



Figure 14: The discovery motivation scale⁸⁴.

2.2.2.12. The design motivation

The design motivation is also part of the creativity cluster. Scoring high indicates that users like to express their individuality in the game's world⁸⁵. That includes spending a lot of time in the character creation processes, in city-building customizations, spaceships designs or any possible object that the game permits to alter visually. Guild Wars 2 or Little Big Planet offer such experiences⁸⁶.

Scoring low on the design motivation indicates that the user prefers games with fixed elements, extending from characters to environments, ideally, with as little customization as possible, which can be found in games like Super Mario Galaxy or Spelunky⁸⁷. A summary of the two conditions can be showcased in the following illustration



Figure 15: The design motivation scale⁸⁸.

The next section focuses on Quantic Foundry's new concept, known as the nine gamer types – they are determined by the users' scores in each of the 12 explained motivation drives.

⁸⁴ Ibid

⁸⁵ Cf. Ibid, Pg. 18

⁸⁶ Cf. Ibid, Pg. 22

⁸⁷ Cf. Ibid

⁸⁸ Ibid

2.2.3. Quantic Foundry's nine gamer types

As explained earlier, the result of the 5-minute test on the QF website showcases the users' scores in each of the 6 clusters or the 12 motivation drives. A new feature that has been added is the gamer archetype the user aligns with:

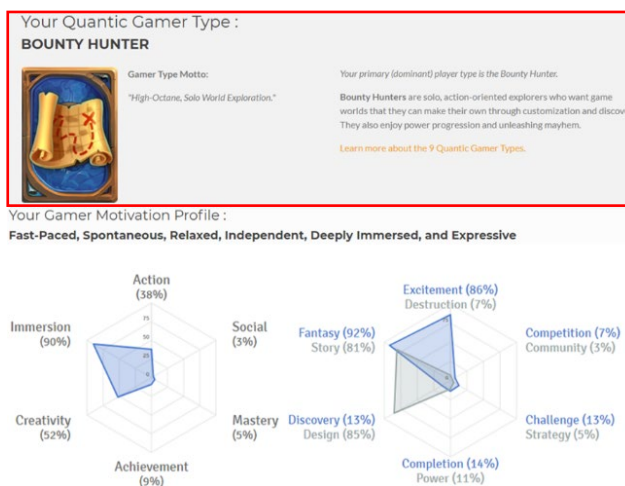


Figure 16: Gamer type quiz result⁸⁹.

Which of the nine gamer types a user aligns with, depends on their scores in each of the 12 motivational drives⁹⁰. All users have a primary gamer type (e.g., Bounty Hunter), but in some cases, they also have a noticeable secondary type and are referred to as blender gamers (e.g., Bounty Hunter/Architect, which stands for primary type/secondary type) – how common they are, is not specified. Nick Yee describes the blender types as:

“Think of a blended gamer type as a primary colour that leans towards another colour—like a Blue that leans towards Green and results in a Turquoise”

-Nick Yee⁹¹

Founder of Quantic Foundry

What each of the archetypes stand for, will be explained in the next section.

2.2.3.1. The Acrobat gamer type

If a user's primary gamer type is an Acrobat, it means that they're a solo gamer, who favours a challenging gameplay – they'll keep practicing repeatedly, until they can take on the most

⁸⁹ Quantic Foundry, n.d.b

⁹⁰ Cf. Yee, N., 2020

⁹¹ Ibid

difficult missions or bosses⁹². Games should be moderately paced, with occasional thinking moments or figuring out the rules. World-building doesn't matter, nor complex customization processes. Favourite games include Super Metroid and The Binding of Isaac. Their 12 motivation scores would look like this:

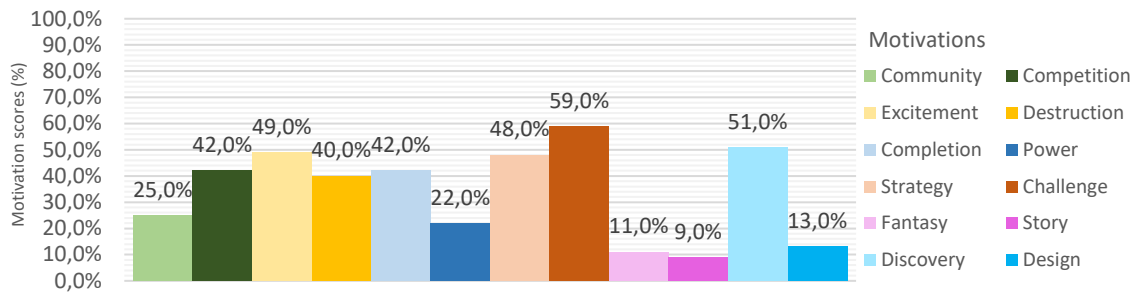


Table 1: Acrobat motivation scores⁹³.

2.2.3.2. The Gardener gamer type

Ending up with the Gardener as the primary gamer type, indicates that the user is looking for an experience where they can complete tasks in a quiet and relaxing manner – regardless of whether they involve collecting items or just finishing off levels⁹⁴. Rules should be presented upfront, as directly as possible, especially if the gameplay is spontaneous and reactive. Planning things in advance should not feel either stressful or anxious. Favourite games include Candy Crush and Animal Crossing. Their 12 motivation scores would look like this:

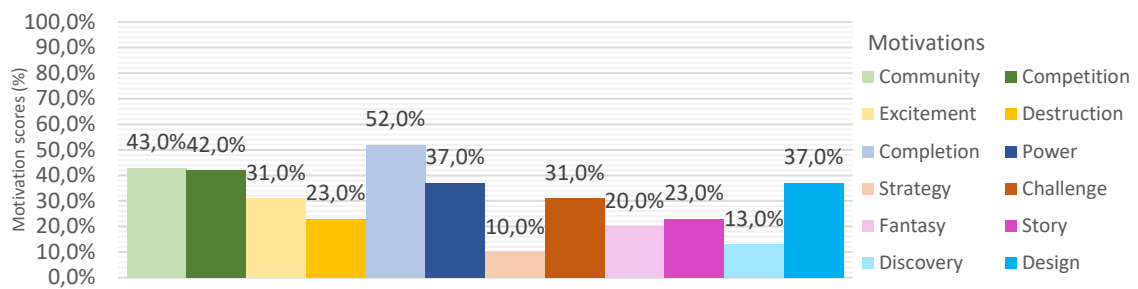


Table 2: Gardener motivation scores⁹⁵.

2.2.3.3. The Slayer gamer type

Gamers with the Slayer primary gamer types want to be the heroic protagonist of a cinematic story⁹⁶. They view games as highly interactive action movies, deeming creative visions and

⁹² Cf. Ibid

⁹³ Cf. Ibid

⁹⁴ Cf. Ibid

⁹⁵ Cf. Ibid

⁹⁶ Cf. Ibid

detailed narratives as very important, whatever lets them experience the game is good – such as slow-paced, solo experiences, and easy mechanics. Power progression or strategy planning are distracting and should be avoided. Their favourite games include Uncharted or Firewatch. Their 12 motivation scores would most likely look like this:

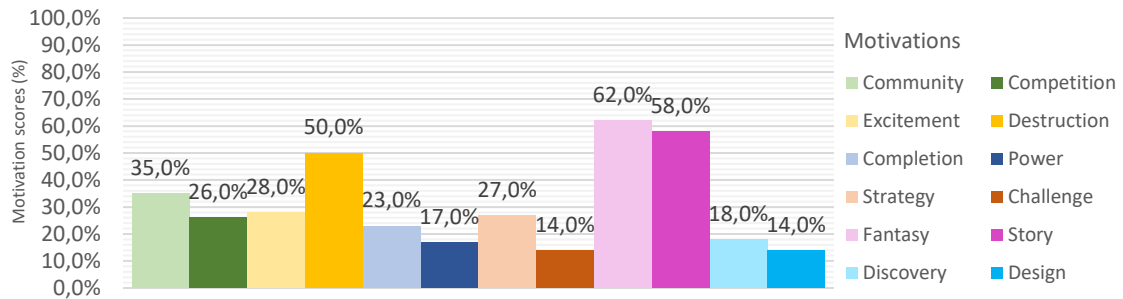


Table 3: Slayer motivation scores⁹⁷.

2.2.3.4. The Skirmisher gamer type

Players with the Skirmisher primary gamer type centre on the action-social clusters⁹⁸. Fast-paced team arenas, who aren't too challenging and don't require much thinking/planning, suit their preferences. Due to their low completion scores, they prefer starting new matches all over again instead of playing long sessions to grind for high scores. Favourite games include Call of Duty or Battlefield. Their 12 motivation scores would look like this:

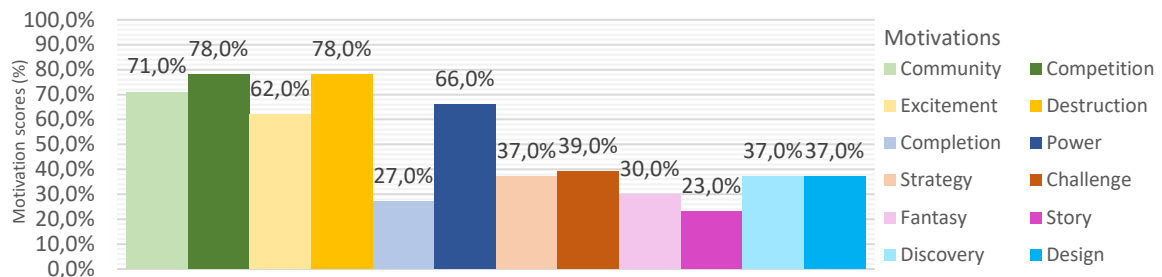


Table 4: Skirmisher motivation scores⁹⁹.

2.2.3.5. The Gladiator gamer type

Users with the Gladiators as their primary gamer type consist mostly of “hardcore gamers” – individuals who enjoy long-sessions, discussing games with their community and keeping up with game-related news¹⁰⁰. Gladiators have demands in multiple fields: they want an epic experience, fast-paced and explosive gameplay, strategic thinking, the use of power

⁹⁷ Cf. Ibd

⁹⁸ Cf. Ibd

⁹⁹ Cf. Ibd

¹⁰⁰ Cf. Adams, E., & Ip, B., 2002

progression mechanics and a rich world that permits exploration and customization¹⁰¹. Destiny or Black Desert Online fit these demands for example. Their 12 motivation scores would look like this:

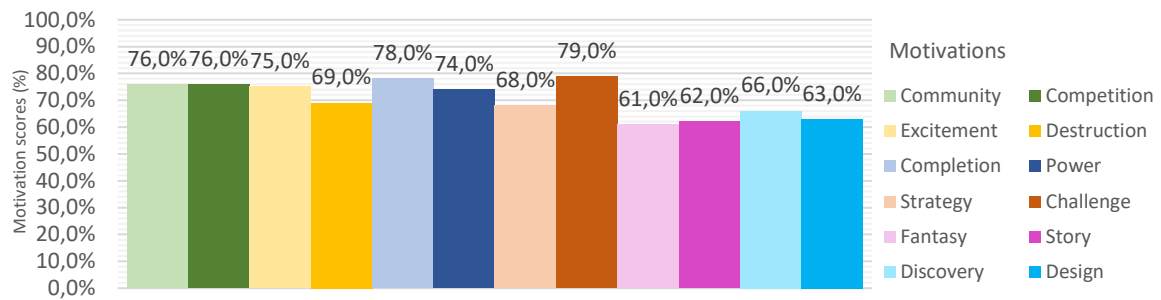


Table 5: Gladiator motivation scores¹⁰².

2.2.3.6. The Bounty Hunter gamer type

Compared to the cinematic preferences of Slayers, users with the Bounty Hunter primary gamer type seek to sculpt a game's world into their own via customization and exploration¹⁰³. Even more admirable is their dedication to their characters – wanting to see them grow and become the most powerful beings in the game's world, either through levelling up or upgrading weapons. Saints Row or Mass Effect offer such experiences. Their 12 motivation scores would look like this:

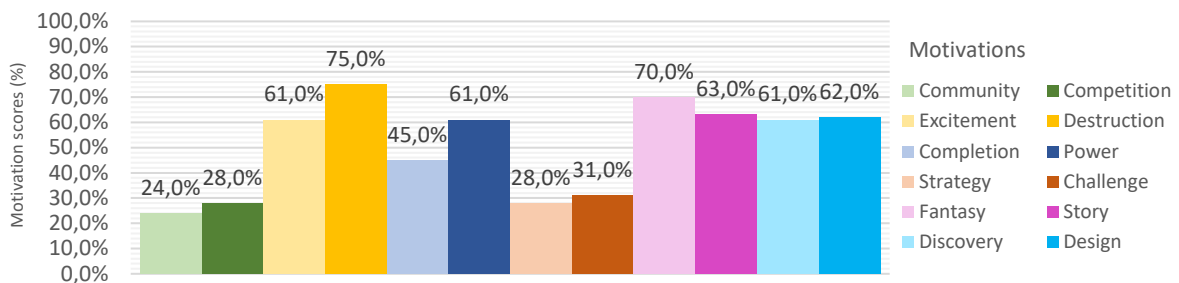


Table 6: Bounty Hunter motivation scores¹⁰⁴.

2.2.3.7. The Bard gamer type

Users with the Bard primary gamer type are social players, who want to chat and interact with others¹⁰⁵. They love a game world with rich lore, story, discovery, and customization. But the ultimate goal is to be part of a grand story, shaping the world and the tales told together with other players, creating their own communities. The game is a theatrical stage

¹⁰¹ Cf. Yee, N., 2020

¹⁰² Cf. Ibd

¹⁰³ Cf. Ibd

¹⁰⁴ Cf. Ibd

¹⁰⁵ Cf. Ibd

and elements like power progression or task completion matter little – they just want to experience the world. The Secret World or Final Fantasy 14 offer such experiences, and their 12 motivation scores would look like this:

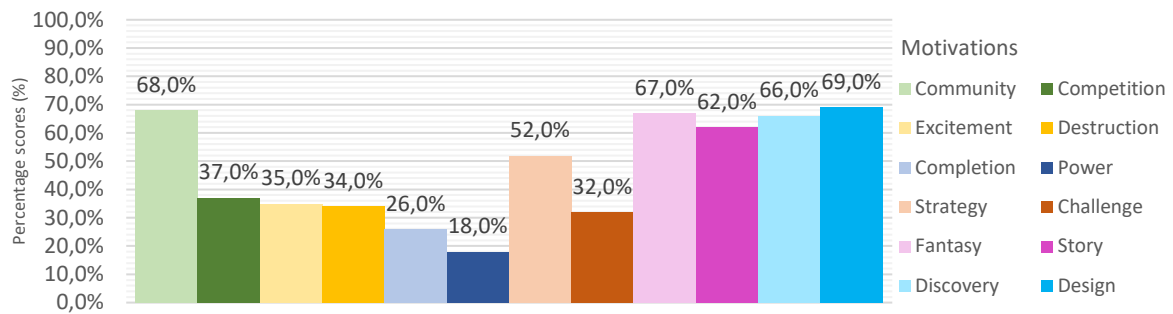


Table 7: Bard motivation scores¹⁰⁶.

2.2.3.8. The Architect gamer type

Planning and decision-making, leading to progression and task completion, is the main desire of users with the Architect as their primary gamer type¹⁰⁷. Intriguing settings and stories are a big bonus, especially when offered as a solo experience, with no teamwork or competition – just complete independence. Slow-paced, relaxing, and serene atmospheres are preferred, with the goal to build something over time and not have it destroyed. Games like Civilization offer that, and the user's 12 motivation scores would look similarly to this:

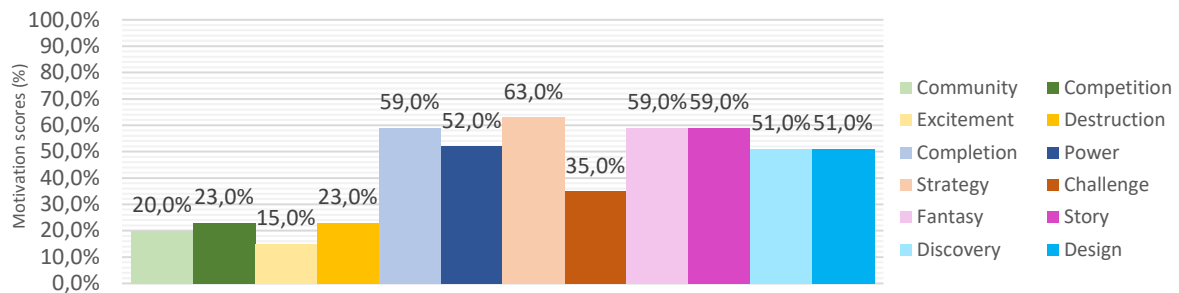


Table 8: Architect motivation scores¹⁰⁸.

2.2.3.9. The Ninja gamer type

While users with the Ninja primary gamer type enjoy tackling difficult challenges like the Acrobats, they also enjoy gameplay consisting of strategic decision making and fast-paced, match-based competition¹⁰⁹. Video games are a place to test one's skills and wits against other players, which is why in-game progression isn't essential compared to skill-based

¹⁰⁶ Cf. Ibd

¹⁰⁷ Cf. Ibd

¹⁰⁸ Cf. Ibd

¹⁰⁹ Cf. Ibd

mastery. Street fighter would be a perfect example for that. Their 12 motivation scores would look like this:

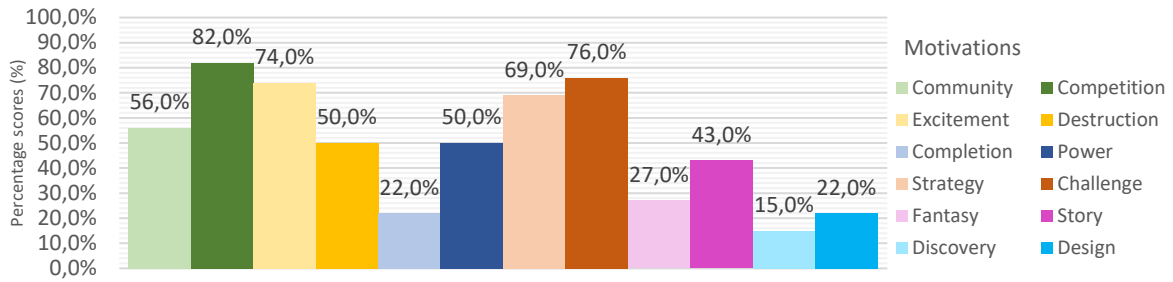


Table 9: Ninja motivation scores¹¹⁰.

This concludes the section that elaborates the Quantic Foundry's motivational model, their gamer types, and their preferences towards gameplay. The next section of the theoretical framework focuses on introducing the concept of game narratives and the different options for main characters, villains, settings and more.

2.3. Theoretical framework - narrative preferences

A game's narrative can be described as the story's structure in a video game¹¹¹. To illustrate it best, one could compare its use and application in other mediums, such as movies.

For the narrative to work in movies, screenwriters must primarily answer the question "what happens next?" at the end of every scene. In video games however, the writers must answer the questions "what does the player do next?" and "why does it matter?" – mainly because compared to movies, games are interactive. They don't have "viewers", they have "players", and these players play an active role in the game¹¹².

The reason why this is important, is because a game can only progress when the player takes actions through gameplay or in some cases, through choices during dialogue segments – also known as the parts where characters exchange words in the game¹¹³. If the player doesn't know what to do next or why it's important, there's a flaw in the narrative or how it's being communicated – and as a result, the player is stuck and can't move forward in the game.

Into which fields do these responsibilities fall? Narrative design – the art of storytelling in a computer game, using any techniques and devices available, while combining them with the art of gameplay, as well as the sum of visual and acoustic methods, to create an entertaining

¹¹⁰ Cf. Ibd

¹¹¹ Cf. Heussner, T., Finley, T. K., Hepler, J. B., & Lemay, A., 2015, Pg. 240

¹¹² Cf. Ibd, Pg. viii

¹¹³ Cf. Ibd, Pg. 239

and engaging experience for the players. The ones responsible to orchestrate all these factors, are known as narrative designers¹¹⁴.

While many elements make up a story, the thesis will primarily focus on the ones examined during the “Games for Health” paper to ensure scope – the categories include characters, locations, conflicts, time, moods, and atmospheres¹¹⁵. Any additional topics added are based on narrative design literature. It should also be noted that terminologies and applications may differ, depending on the medium used (e.g., movies, series, books, etc.).

2.3.1. Characters

2.3.1.1. Player-Character types

In a video game, the most important character is the player-character¹¹⁶. They act as the player's placeholder in the game's world, enabling them to experience all the adventures and challenges it has to offer. They are the main characters, simply because they are the players. There are different types of player-characters nonetheless— some enabling the players to play as themselves, by providing options to alter their looks and in-game behaviours. In other cases, the player controls a fictional character with a fixed appearance and personality¹¹⁷. The different player-character types are:

- **Cipher:** have no noticeable personality traits and act more like “blank slates”, windows into the world – mainly to enable players to feel as if they are playing as themselves¹¹⁸. That's why ciphers won't have any visible desires or sense of agency – also known as the character's ability to make decisions and act upon their own motives. The only thing they'll have is a name, appearance, and a vague backstory, to show that they are part of the game's world. Everything else is left to the player's imagination. An example would be Gordon Freeman from the game Half Life.
- **The fixed character:** these characters have a defined personality, backstory, and abilities, set by the game's development team. Players have no to very few options to change their appearance and instead control their moment-to-moment actions. The benefit of a fixed character is that the narrative designers have full control over how these characters behave in certain situations and how their personalities develop throughout the game's story. The consequence of that, is that these characters need

¹¹⁴ Cf. Ibd, Pg. 1f

¹¹⁵ Cf. Schwarz, et al., 2019, Pg. 197

¹¹⁶ Cf. Heussner, T., Finley, T. K., Hepler, J. B., & Lemay, A., 2015, Pg. 78f

¹¹⁷ Cf. Ibd

¹¹⁸ Cf. Ibd

to be well-rounded or at least likeable, as players will need to immerse themselves into their specific roles or at least somehow identify with them. Good examples of fixed characters are Mario from Super Mario Bros or Link from the Legend of Zelda¹¹⁹.

- **The customizable character:** On the other side of the spectrum are the customizable characters – developers won't know anything about who they are, because they let players define and build them through a character creation process from scratch¹²⁰. That includes factors such as gender, race, talents and sometimes also occupation and backstory. Due to that freedom, a solid world and well-developed side-characters are necessary, so that the player has enough material to compare and define who their player-character is and what role they play. Another consequence of this freedom is that the game needs to allow different ways to complete certain tasks – one player might create a thief in the character creation process, while another one could create a knight. As a consequence, tasks should be able to be completed in different ways – in this case, in a thief-like way and also a knight-like way. Such characters can be found in World of Warcraft.
- **Fixed background, customizable character:** these kinds of characters are a mix of the previous two, as suggested in the label¹²¹. They usually come with some fixed features and some player-defined ones – though deciding how much of one and how much of the other, usually depends on the story and the game itself. The biggest benefit is that writers can create contents based on the fixed features, to develop the story around the player-character. A good example of that is Commander Shepard from the Mass Effect series – while his occupation and last name are defined, players control whether he acts friendly or evil in various situations, as well as his appearance in terms of gender and clothes.

2.3.1.2. Differences between a protagonist and a viewpoint-character

In most video games, the player-character is the one who the story centres on – also referred to as the **protagonist**¹²².

Nevertheless, there are a few cases where the player-character and the protagonist aren't the same person – and while the player roams around the world through his player-character, the

¹¹⁹ Cf. Ibd

¹²⁰ Cf. Ibd

¹²¹ Cf. Ibd

¹²² Cf. Card, O. S., 2001, Pg. 70f

story itself centres entirely on somebody else. A good example of that is the game called *White Knight Chronicles I*. Players take control of a customizable character, but the story focuses on one of the other main cast members. In these cases, the player-character is not the protagonist, but a **view-point character** – the person with whose eyes the player sees the world and all the action¹²³.

2.3.1.3. Arc types

Another important aspect regarding the player-characters is how they transform or develop during the game's progression - also known as **character arcs**¹²⁴. The degree of change also depends on the player-character type, but the arc types can be narrowed down to:

- **The positive arc:** the most popular one of the three types, where the character starts off with feeling some sort of personal unfulfillment or denial about something¹²⁵. Over the course of the game's story, they'll be forced to confront and challenge their beliefs about themselves or the world, conquer their inner demons, and once they've changed in a positive way, their arc is complete.
- **The flat arc:** mostly used to feature a character who is already complete and doesn't need to undergo any personal growth to gain inner strength and defeat a villain¹²⁶. Because of that, no further character changes occur during the game's story, making their arcs flat. They do still act as catalysts, sparking change in the game's world or initiating prominent growth in the arcs of surrounding characters.
- **The negative arc:** while there are many variations of this type, they are essentially the opposite of the positive one – instead of growing out of their faults, the character ends up in a worse state compared to his original one at the start of the game¹²⁷.

The next important characters are villains, who can also be differentiated by their motives, activity, how they challenge the player-character and more.

2.3.1.4. Villain motive types

There are different ways on how to make the game's player-character and villain collide. The first way is by making both have opposing goals – for one to succeed, the other one

¹²³ Cf. Ibd

¹²⁴ Cf. Weiland, K. M., 2016, Pg.17

¹²⁵ Cf. Ibd

¹²⁶ Cf. Ibd, Pg. 17f

¹²⁷ Cf. Ibd, Pg. 18

needs to get out of the way¹²⁸. The second method consists of making both share the same goal, but having different views on how to reach it, causing conflict again¹²⁹.

2.3.1.5. Active or passive villain types

Another way to differentiate villains is by determining whether they are active or passive:

- **Active villains** are those who have their own personal goals. If the hero gets in their way, getting rid of them may be required¹³⁰.
- **Passive villains:** aim is to essentially stop the hero from achieving their goals in any way possible – but if the hero didn't exist/didn't act, neither would the villain¹³¹.

2.3.2. Story

The next chapter focuses on stories themselves – and how they can be structured in many ways, depending on what the primary focus is, whether the narrative branches out during the game, how they end, and more.

2.3.2.1. Story focus types

A story can explore different subjects at once – but usually, the primary focus is either on the world, a character, a question, or an event. The four existing story focus types are:

- **Milieu story:** While it's common for stories to focus on a character, that isn't always the case. Sometimes the story's spotlight is on the game's world instead - the planet, society, weather, all elements that came up during the world creation phase¹³². And while characters may or may not dwell in it, players will learn little about their pasts and who they are. The point of a milieu story is for the players to experience all the strange things that can happen in the game's world, planet, place, from the eyes of their player-character and compare them to other worlds they've seen. The structure of a milieu story usually starts with an observer who sees things similarly as the player would, enters a strange place, experiences all the things that can happen there, gets transformed by what he sees and then returns to his original world with a new perspective or decides to remain in the strange world forever.

¹²⁸ Cf. Hickson, T., 2019, Pg. 56f

¹²⁹ Cf. Ibd

¹³⁰ Cf. Ibd, Pg. 58

¹³¹ Pg. Ibd

¹³² Cf. Card, O. S., 2001, Pg. 76f

- **Idea story:** the story focuses on the process of finding out new pieces of information, usually through characters who previously didn't know about them before¹³³. The story begins by a raised question and ends when it's answered – mainly found in detective games, where a murder takes place, and the question focuses on who the killer is. The player-character will most likely embody a role where gathering evidence is expected, as well as questioning side-characters. The story then ends when the killer has been identified, or the question answered. The player-character will usually aim to mirror the player's curiosity and beliefs during the process.
- **Character story:** focuses on the transformation of a character's role in a community that matters to him¹³⁴. While developed characters may not be required in the other story focus types, it is certainly essential in this one. It usually begins with them feeling unhappy about their present role in society, initiating the process of change. The story ends when they've either settled into a new role – happy or not – or decided to give up the struggle and return to their old initial role.
- **Event story:** focuses on a sudden disorder that occurred in the game's universe/world - usually through the return of an old evil, who was believed to be dead¹³⁵. The player-character starts off in a place they are familiar with, only seeing little hints of the upcoming disorder. During the game, the disorder becomes more apparent and through various events, the player-character will start caring about it enough to get involved and recognize that their actions are necessary to stop it. The story ends either when the new order is established, the old one restored or with the world descending into chaos.

2.3.2.2. Narrative branching types

A game's story also largely depends on whether it branches off into separate storylines during the game or remains linear instead. The existing branching types are:

- **Linear narrative:** refers to a game, where every player experiences the same order of events, every time the game is played. It can be illustrated as:



Figure 17: Linear narrative type¹³⁶.

¹³³ Cf. *Ibd*, Pg. 77

¹³⁴ Cf. *Ibd*, 79f

¹³⁵ Cf. *Ibd*, 81ff

¹³⁶ Cf. Heussner, T., Finley, T. K., Hepler, J. B., & Lemay, A., 2015, Pg. 107f

Dialogue choices are usually left out, as the story only flows into one direction, doesn't branch off and can't change based on the player's decisions. That's why linear narrative games will usually switch between segments of gameplay and segments of cutscenes, also known as a non-interactive scene, scripted by narrative designers and used to convey the story to the player¹³⁷.

- **Branching narrative:** found in RPGs or adventure games, where the player's choices affect individual sections of the story (e.g., protect or betray character A), thus branching out¹³⁸. How that works can be illustrated with the following image:

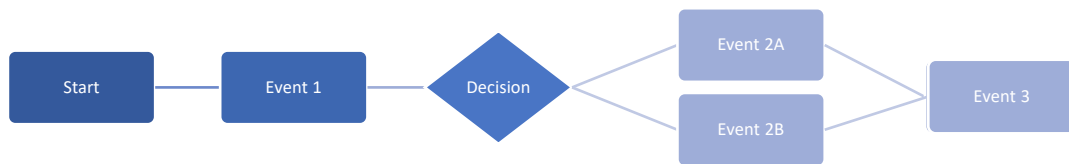


Figure 18: Branching narrative type¹³⁹.

While players might start the game at the same spot, a decision segment will come, causing the story paths to diverge – offering a more personalized player experience. The individual sections do ultimately come back together again for a coherent storyline. Meaningful choices are necessary for this type¹⁴⁰.

- **Open narrative:** often found in MMOs, where the player can choose their own order of events, with no predefined sequence to follow¹⁴¹. It can be illustrated with the following image:



Figure 19: Open narrative type¹⁴².

2.3.2.3. Performance types

Another element to consider is whether the game recognizes the player's presence – either by talking to them directly or not. The two performance types are:

- **Presentation style:** games that follow this style, often make comments about the player's presence during the game. An example of that would be Deadpool, where the main cast often talk directly to the player, wondering what they'll do next¹⁴³.

¹³⁷ Cf. Ibd

¹³⁸ Cf. Ibd, Pg. 111

¹³⁹ Cf. Ibd

¹⁴⁰ Cf. Ibd, Pg. 111f

¹⁴¹ Cf. Ibd, Pg. 119f

¹⁴² Cf. Ibd

¹⁴³ Cf. Card, O. S., 2010, Pg. 175f

- **Representation style:** games that follow this style, maintain the illusion of being unaware of the player's presence and act as if they aren't there¹⁴⁴.

2.3.2.4. Conflict types

While many kinds of conflicts exist within a story, they can be narrowed down to 4 types¹⁴⁵:

- **Character vs. character** (e.g., protagonist against a villain)
- **Character vs. nature** (e.g., protagonist against an unknown planet)
- **Character vs. society** (e.g., protagonist against a city's government)
- **Character vs. themselves** (e.g., protagonist against their own mind)

2.3.2.5. Ending types

How a story concludes is also important. Two types exist:

- **Resolution ending:** all the conflicts are resolved, and all the characters' fates are sealed¹⁴⁶.
- **Resonance ending:** nothing is resolved and there's no account of what happened to the characters – focus is more on a situation that is ambiguous, interesting or simply impossible to resolve¹⁴⁷.

2.3.3. Perspectives and narrators

How a game's story is experienced also depends on which perspective it's told from and whether a narrator is involved or not.

2.3.3.1. Perspective types

The player views and experiences the game's world through the eyes of the player-character, or rather through the game's graphical perspective: the in-game camera view, which mimics what the player would see, if they'd embody their player-character¹⁴⁸. The two common graphical perspective types are for example:

- **1st person:** where the player sees the outside world from the same viewpoint or eye-level as the player-character. It can be best illustrated with the following image:

¹⁴⁴ Cf. *Ibd*, Pg. 174

¹⁴⁵ Cf. Kress, N., 2011, Pg. 13

¹⁴⁶ Cf. *Ibd*, Pg. 132

¹⁴⁷ Cf. *Ibd*, Pg. 133

¹⁴⁸ Cf. Heussner, T., Finley, T. K., Hepler, J. B., & Lemay, A., 2015, Pg. 241



Figure 20: First person perspective¹⁴⁹.

- **3rd person:** where the player viewpoint comes from a camera, that follows the player-character from behind – enabling them to see more of what's around them¹⁵⁰. The benefit from this perspective is that the player gets an immediate impression of who their player-character is, just by their design.¹⁵¹ An example of that can be illustrated with the following image:



Figure 21: Third person perspective (player-character on the left)¹⁵².

2.3.3.2. Narrator types

Narrators are often used in books or movies, telling the story from the perspective of an intangible observer¹⁵³. In video games, the narrator is sometimes the player-character, expressing the story bit by bit to the player. In other cases, the narrator is another character from the cast or somebody who isn't visible in the game at all. Examples of narrator types to differentiate by are:

- **Omniscient narrator:** floats over the landscape, wherever they want to, and can explore any character's dreams and desires – are not limited physically to any character¹⁵⁴. Best examples are Age of Empires or SimCity.

¹⁴⁹ Stegner, B., 2020

¹⁵⁰ Cf. Ibd

¹⁵¹ Cf. Heussner, T., Finley, T. K., Hepler, J. B., & Lemay, A., 2015, Pg. 137

¹⁵² Stegner, B., 2020

¹⁵³ Cf. Zygnius., 2018

¹⁵⁴ Cf. Card, O. S., 2010, Pg. 202

- **Limited point of view narrator:** moves through the story by one player-character at a time – sees what they see, aware of what they think, want, and know. Players can switch the viewpoint from time to time to another player-character¹⁵⁵. Best example is Grand Theft Auto V, where the player can switch between 3 player-characters the game offers, controlling one at a time via the third-person perspective.

Narrators can also be differentiated by their **reliability**, by always providing the player with truthful information about the story and the characters involved. However, an **unreliable** narrator will lie and provide false information to mislead the player, resulting in the player questioning their advice¹⁵⁶. A great example is found in the game Stanley's Parabel, where the narrator could even be considered the main villain of the game¹⁵⁷.

2.3.4. Settings

Another aspect influencing the narrative of a game is where it takes place. Based on the "Games for Health" report, here are a few options that serve as possible locations:

Public places	School, theme parks, football fields, shops or restaurants, hospitals; places with animals, cemeteries, fashion, sport places, governmental places, transportation or their own realistic-living environment
Private places	Building, "haunted house"
Urbanization	"Big city, Paris, London, Milan, New York," "deserted city"
Rural areas	Jungle, forest, desert, farm, North pole
Geographical location	Europe, America, Asia, Africa
Battlefield	War site, as "Iraq," "Vietnam," "Germany" or the civil war in "Spain"
Earth	"on the whole world," "earth," or "the real world"
Fantasy worlds	"magical places," "dark places," or "dark place with mysterious creations"

Figure 22: Game setting options¹⁵⁸.

Another location to add would be other planets aside from earth, mainly for science-fiction games. For fantasy settings, it should also be considered whether magic exists/how it works:

- **Hard magic system:** magic has clearly defined rules, consequences, and limitations to govern what can or cannot be done with it¹⁵⁹.
- **Soft magic system:** magic is vague, undefined and has a mysterious set of rules¹⁶⁰.

The two types can also be applied to science-fiction, for example on how time traveling works – if it's a soft system, time travel is mysterious and vaguely explained. If it's a hard system, time travel is explained in detail, with rules and consequences.

¹⁵⁵ Cf. Ibd, Pg. 203

¹⁵⁶ Cf. Ibd, Pg. 191f

¹⁵⁷ Cf. Mullis, S., 2013

¹⁵⁸ Schwarz, et al., 2019, Pg. 198

¹⁵⁹ Cf. Hickson, T., 2019, Pg. 105f

¹⁶⁰ Cf. Ibd

2.3.5. Game genres

A game's genre will also influence the players' expectations regarding the story, as they'll differ depending on whether they're playing a puzzle game or an RPG for example. Which ones are preferred, are also included in the QF gamer type quiz results - a few genres are¹⁶¹:

- Action Adventure (e.g., Uncharted or Infamous)
- Action RPG (e.g., Diablo III or Dark Souls)
- Atmospheric Exploration (e.g., Journey or Dear Esther)
- Casual Puzzle (e.g., Angry Birds or Cut The Rope)
- City Building (e.g., Cities: Skylines or SimCity)
- First-Person Shooter (e.g., Counter-Strike: Global Offensive or Team Fortress 2)
- Grand Strategy (e.g., Europa Universalis IV or Crusader Kings II)
- Interactive Drama (e.g., The Walking Dead (series) or The Wolf Among Us)
- Japanese RPG (e.g., Fire Emblem Fates or Bravely Default)
- Family/Farm Sim (e.g., The Sims or Harvest Moon)
- Match 3 (e.g., Candy Crush Saga or Bejewelled)
- MMOs - High Fantasy (e.g., World of Warcraft or Rift)
- MMOs -Sci-Fi (e.g., Star Trek Online or EVE Online)
- MOBA (e.g., League of Legends or Heroes of the Storm)
- Open World (e.g., Assassin's Creed Syndicate or Watch Dogs)
- Platformer (e.g., Ori and the Blind Forest or Rayman Legends)
- Racing (e.g., Need For Speed or Gran Turismo)
- Sandbox (e.g., Minecraft or Terraria)
- Sports (e.g., FIFA or NBA 2K)
- Survival Roguelike (e.g., Darkest Dungeon or Don't Starve)
- Tactical Shooter (e.g., Squad or Tom Clancy's Rainbow Six Siege)
- Turn-Based Strategy (e.g., Civilization V or Endless Legend)
- Western RPG (e.g., Mass Effect 3 or The Witcher 3: Wild Hunt)

This completes the narrative chapter and the theoretical framework, leading to the transition into the methodology section.

¹⁶¹ Cf. Yee, N., 2017

3. METHODOLOGY

After the conclusion of the theoretical framework, where all the necessary knowledge about QF and the concepts of narrative have been explained, the methodology chapter can now begin – with the goal to gather data and use it to answer the following two research questions:

- **RQ1:** Which narrative elements of digital games are preferred by the nine primary Quantic Foundry gamer types?
- **RQ2:** To what extent are the narrative preferences shared by users with the same primary Quantic Foundry gamer types?

And testing the following hypothesises:

- **H1:** The preferred narrative elements of digital games differ per primary gamer type.
- **H2:** Gamers who share the same primary QF gamer type, will have similar narrative preferences.

Specific methods have been chosen, to complete this task. What they are, how they've been applied in previous papers and how they'll be used in this thesis will now be elaborated.

3.1. The selected methods

The chosen methods for the methodology process are expert interviews and surveys.

3.1.1. Expert interviews

Expert Interviews are one of the qualitative empirical research methods¹⁶². They allow a more in-depth analysis from a relatively small, selected sample size and seek to identify the participant's views on a specific topic. It begins with the project design phase, where the research conductor decides on a research question, the interview types he wishes to conduct and based on that, what kind of interview questions to devise. Then begins the data gathering phase, starting with pilot interviews, ethical reviews, samplings and then finishing off with undertaking the interviews. The last phase then consists of analysis and dissemination of the gained insights¹⁶³.

It should be differentiated nevertheless between interviews and expert interviews. As the name suggest, one requires experts – individuals who have knowledge about a specific topic, closely related to the research question or problem that's aimed to be solved. The reason

¹⁶² Cf. Young, J. C., et al., 2018

¹⁶³ Cf. Ibd

why one would go with expert interviews, is because the gained insights would otherwise be difficult to obtain¹⁶⁴. A common characteristic of expert interview candidates is that their views are rather subjective and will most likely clash with others¹⁶⁵.

The benefit of conducting expert interviews, mainly consists of gaining access into an unknown field, obtaining specific information faster than other methods and often leading to being recommended to other experts, who would most likely share their opinions as well¹⁶⁶. The disadvantages on the other hand are that the obtained insights are not objective, that the way an interview is conducted can already influence the flow of the conversation and the obtained data. They are also not repeatable and there's always the risk of receiving flawed information from the participant¹⁶⁷.

3.1.2. Surveys

Surveys are one of the quantitative empirical research methods and used to collect information to describe, compare or explain knowledge, attitude, and behaviour¹⁶⁸. It starts with setting objectives for the intended information collection, designing research, preparing a reliable and valid data collection instrument, gathering data, analysing them, and reporting the results. Surveys can be used by individuals, as well as communities, schools, businesses, or researchers, to find out how people feel about a certain topic, their backgrounds, their motivations and more¹⁶⁹.

Just like expert interviews, different elements make up a survey, from which different types can emerge. The elements it can consists of, can be described with the following list:

- How the survey takes place: face-to-face, per mail, telephone or online¹⁷⁰.
- Survey question types:
 - **Closed questions:** answers or responses are preselected for the participant¹⁷¹. They are difficult to formulate, as one needs to know all the possible responses in advance, but the gained insights are easier to analyse statistically

¹⁶⁴ Cf. Audenhove, L. V., 2017, Pg. 10

¹⁶⁵ Cf. Ibid, Pg. 11

¹⁶⁶ Cf. Ibid, Pg. 13

¹⁶⁷ Cf. Ibid, Pg. 16

¹⁶⁸ Cf. Fink, A., 2003, Pg. 1

¹⁶⁹ Cf. Ibid

¹⁷⁰ Cf. Ibid, Pg. 2

¹⁷¹ Cf. Ibid, Pg. 15

and interpret. This is very practical for large surveys with numerous responses¹⁷².

- **Open questions:** participants use their own words to answer a question. This is beneficial for gaining insights into an unknown field, but collected results are extremely difficult to compare and interpret, unless one is a trained anthropologist or qualitative researcher¹⁷³.
- Survey choice types:
 - **Nominal/categorical** have no numerical values. An example would be asking participants which gender they identify with¹⁷⁴.
 - **Ordinal:** when participants are asked to rate something or to choose an order of importance – an example would be to rate a subject from very positive to very negative.
 - **Numerical:** when the participants are asked for numbers, such as age or height.
- Sampling methods:
 - **Probability sampling:** provides a statistical basis for saying that a sample is representative of the study or target group¹⁷⁵. It is implied that random selection takes place, where participants are chosen at random to eliminate subjectivity.
 - **Nonprobability sampling:** samples are chosen based on judging the characteristics of the target group and the needs of the survey. In this case, it is implied that some members of the eligible target population have a chance of being chosen and others not¹⁷⁶.
- **Sample size:** refers to the number of units that needs to be surveyed to get precise and reliable findings¹⁷⁷. The units can be people (e.g., men and women under 45), places (e.g., hospitals), or objects (e.g., school records). Large sample sizes naturally require more costs or time for data collection, data processing and analysis¹⁷⁸.

Due to the existence of various survey types, the strengths and weaknesses of the method vary, depending on which of the above survey options were chosen to construct it.

¹⁷² Cf. Ibd, Pg. 16

¹⁷³ Cf. Ibd

¹⁷⁴ Cf. Ibd, Pg. 16f

¹⁷⁵ Cf. Ibd, Pg. 29

¹⁷⁶ Cf. Ibd

¹⁷⁷ Cf. Ibd, Pg. 34f

¹⁷⁸ Cf. Ibd

Generally, the pros of using surveys are a small cost per participant compared to running a focus group or phone interviews. Data collection is easier as well, allowing one to reach thousands of possible participants and, if it's anonymous, they tend to express themselves more freely¹⁷⁹. The cons of using surveys for data collection, is that the survey conductor needs to ensure the capture of a representative sample, from which to collect data. Another disadvantage is that surveys are rigid – as mentioned before, one needs to include all the possible answers if closed questions are included. If an option is left out, one can be missing out on important data¹⁸⁰.

3.2. Application of methods in previous studies

The following list showcases how the studies mentioned during the research gap chapter have conducted their methodology:

- **“Which narrative design elements of digital games are preferred by the general adolescent population and what are the associations with gender, socioeconomic status, and gameplay frequency?”**, by Games for Health, selected eligible participants who were adolescents from seventh, eighth and ninth grade (between 12 – 15 years old). The data was then gathered from a convenience sample of 15 schools, that offered academic or non-academic track educations, as part of a larger study on adolescent peer relationships among 1750 pupils in this age group¹⁸¹. The survey assessed sociodemographic factors via closed questions and predetermined answers, frequency of gameplay with scales and rating questions, while the subject on which narrative types appeals to them the most, were left with open-ended questions. In the end, 446 responses were gathered¹⁸². To identify patterns and analyse the responses given in the open-ended questions, the software NVivo11 was used. For the associations between game narrative subthemes and player characteristics (age, education type, and gameplay frequency), the software IBM SPSS 25.0 was used to conduct chi-square tests¹⁸³.
- **„Player Preferences and Motivations Across Gender and Genre”**, by Christine Tomlinson, collected data by using qualitative methods in the form of interviews with video game players and online forum discussions¹⁸⁴. 54 interviews were

¹⁷⁹ Cf. SurveyMethods, 2011

¹⁸⁰ Cf. Ibd

¹⁸¹ Cf. Schwarz, et al., 2019, Pg. 196

¹⁸² Cf. Ibd, Pg. 197

¹⁸³ Cf. Ibd

¹⁸⁴ Cf. Tomlinson, C., 2019, Pg. 3

conducted in total, 31 of them being females. Interviewees were able to choose whether they preferred phone or Skype, and conversations took between 40 minutes and two-and-a-half hours. Recruiting them was done through networking sampling and seeking volunteers from online forums, which focused on video games – mainly to ensure that the participants were well-integrated in the gaming communities. In the end, the interview samples were comprised of people living in six countries (Japan, Brazil, South Korea, Australia, Canada, and America) and aged between 22 and 38¹⁸⁵. However, the exact questions used during the interviews were not released.

- **“Personality & Game Design Preference: Towards Understanding Player Engagement and Behaviour”**, by Kourtnie H. Andrus, started with conducting the first survey round with 150 participants and the second one with 301¹⁸⁶. Participants were recruited by convenience sampling through digital recruitment. Social media was utilized via advertisements on platforms such as Facebook and Reddit. The age requirement was that participants should be 18+ years old and play at least 1 hour of video games per week¹⁸⁷. A participation incentive was also added to win 1 out of 5 steam coupons with the value of \$20. Data was then analysed using a game design preference inventory, where participants were instructed to rate game-related topics with scales extending from “strongly disagree” to “strongly agree”. The personality aspect was then measured with a free non-commercial scoring guide, which was a revised version of the original HEXACO personality inventory¹⁸⁸.
- **“Differences in students’ stem identity, game play motivations, and game preferences”**, by Kathleen S. Jeremiassen, conducted the methodology by using a mixed-method approach. Quantitative data was collected through a survey, while qualitative data was obtained via focus groups from a purposeful sample of 9th - 12th grade students, who were attending a suburban high school in south-eastern Texas¹⁸⁹. To find the relation between the students’ STEM identities, their gameplay motivations and game preferences, the author selected three existing surveys for each: The STEM identities of the students were identified by using the “Persistence Research in Science (PRiSE) Survey” by Hazari, whose questions consisted of 5-

¹⁸⁵ Cf. Ibd

¹⁸⁶ Cf. Andrus, K. H., 2018, Pg. 19f

¹⁸⁷ Cf. Ibd, Pg. 21f

¹⁸⁸ Cf. Ibd, Pg. 20f

¹⁸⁹ Cf. Jeremiassen, K. S., 2018, Pg. 31

point Likert scale types, ranging from 1 (strongly disagree) to 5 (strongly agree)¹⁹⁰. The gameplay motivation aspect was identified, by using the “Game Play Motivations Survey”, also created by QF founder Nick Yee. The questions in this survey also consisted of scale types, ranging from 1 (unimportant) to 5 (very important)¹⁹¹. Lastly, the game preferences were identified using the “National Survey of Game Users II” by Fraser¹⁹². Similarly to the previous two, the question types also consisted of 5-point Likert scales, as well as yes/no checkboxes¹⁹³. All the gathered data was then exported from Excel into IBM SPSS for data analysis¹⁹⁴. In total, 167 participants completed the survey¹⁹⁵.

3.3. What do they explore/how is it useful for the research gap?

As showcased in the previous studies, surveys were primarily used to identify participants' behaviours or preferences towards a specific topic. Using this method to identify gamers' narrative preferences and see if there are similarities between those who share the same primary gamer type seems most efficient. The collected data would then serve the purpose to answer the research questions and fill the research gap. Some of the previous studies also included qualitative methods but in a manner that supported the surveys. As data about narrative preferences will be gathered through that method, it also seems intriguing to conduct expert interviews with individuals working in the game industry, open to sharing insights or experiences they've had so far with the QF concepts. How the methods will be used for this thesis, will be elaborated in the next part.

3.4. Application of methods and their limitations

3.4.1. Application of expert interviews

The aim of the expert interviews is to find out how individuals who work in the game industry feel towards the motivational models – and possibly whether there's a connection to narrative preferences. It begins with asking who they are, what they do, and which models they currently use to distinguish between their customers and their preferences – finishing

¹⁹⁰ Cf. *Ibd*, Pg. 38

¹⁹¹ Cf. *Ibd*, Pg. 39f

¹⁹² Cf. *Ibd*, Pg. 32

¹⁹³ Cf. *Ibd*, Pg. 38ff

¹⁹⁴ Cf. *Ibd*, Pg. 43

¹⁹⁵ Cf. *Ibd*, Pg. 48

off with what they find good or bad about them. The expert interview questions can be found in the appendix¹⁹⁶.

Expert interview candidates are sought out on social media platforms, with the requirement that they work in the game industry and have experience with motivational models. Ideal candidates would be narrative designers or marketing managers, who are more likely involved with the topic. An example would be Facebook groups for game writers, as well as e-mails sent to game companies residing in Berlin. The main limitation consists of low response rates from companies, as well the uncertainty whether individuals truly are the experts they claim to be on social media. In addition to that, the expert interviews can only be conducted online due to the current pandemic, influencing the flow of conversation.

3.4.2. Application of survey

The survey aims to identify which narrative elements are preferred by participants with one of the nine primary QF gamer types. As a QF gamer type test already exists on the QF website, participants will be prompted to complete it by adding the quiz link on the first page of the online survey¹⁹⁷. The questions are scale-based, asking to what extent the user finds certain game-related topics important or unimportant/enjoyable or unenjoyable – the complete QF quiz can also be found in the appendix¹⁹⁸.

Once the participants have completed the QF quiz and know their primary QF gamer types, they can then return to the online survey which is anonymous. The first question asks them to insert their according primary gamer type, their secondary one too (if they have one), and once that is complete, they move on to the narrative part of the survey.

This section consists of closed questions, in the form of single-choice questions (SCQs) or multiple-choice questions (MCQs), nominal types – deciding on which one to implement, will usually depend on the number of predetermined answer options (if they are less than 3, SCQs are used). While MCQs offer participants to choose multiple answers, a “no preferences” option will be included as well. To ensure that participants can't choose various options and the “no preference” one at the same time, the “no preferences” button will have a “priority” attribute, provided by Unipark – meaning that if participants choose “no preferences”, any previously selected options will be deselected for the current question.

¹⁹⁶ Cf. Sabarini, S., 2021a

¹⁹⁷ Cf. Yee, N., 2020

¹⁹⁸ Cf. Quantic Foundry, n.d.a

While the diagrams in the findings chapters will not include data-labels to ensure readability, they will be included in the appendix version for reference. In that version, all values will be presented in the form of percentages, with 1 decimal place for enhanced accuracy. It should also be noted that during SCQs, the percentages will add up to 100,0% - but not during MCQs. Due to having multiple options to choose from, it is possible for the number of responses to exceed the number of participants – which is why the percentages may exceed 100,0%¹⁹⁹. To avoid confusion, it will always be stated whether the results are based on a SCQs or MCQs.

The reason why closed questions were used, is because enough predetermined answers could be generated from the previous papers' findings – specifically from the “Games for Health” open questions section about narrative preferences. The reason why nominal types were chosen, is because the primary goal is to identify what the narrative preferences of gamers with a specific primary QF gamer type are. Any additional questions or predetermined answers that weren't inspired by the “Games for Health” paper, were based on narrative literature instead such as:

- The Game Narrative Toolbox by Tobias Heussner, Toiya Kristen Finley, Jennifer Brandes Hepler, and Ann Lemay²⁰⁰.
- On Writing and Worldbuilding by T. Hickson²⁰¹.
- Characters & Viewpoint by O. S. Card²⁰².
- How to write science fiction & fantasy by O. S. Card²⁰³.
- Creating character arcs: The masterful authors guide to uniting story structure, plot, and character development by Weiland, K. M.²⁰⁴.
- Beginnings, middles, & ends by Kress, N.²⁰⁵.

The narrative concepts during the theoretical framework were based on the above-mentioned literature as well.

Due to the current pandemic, the surveys were conducted online, and the only requirement being that participants play video games – regardless of whether on PC, consoles such as PlayStation, Xbox or Nintendo Switch, or mobile games. The reason why no further

¹⁹⁹ Cf. Why doesn't the percentage add up to 100%, n.d.

²⁰⁰ Cf. Heussner, Lemay, Hepler & Finley, 2015

²⁰¹ Cf. Hickson, 2019

²⁰² Cf. Card, 2011

²⁰³ Cf. Card, 2005

²⁰⁴ Cf. Weiland, K. M., 2016

²⁰⁵ Cf. Kress, N., 2011

requirements were set, is because factors such as age, gender and gameplay frequency are asked for during the QF quiz – influencing which primary and secondary gamer type the participant will end up with²⁰⁶. In the previous research papers, the completed surveys ranged between 160 – 450. Thus, the online survey will aim for 300.

The survey link was generated using the platform Unipark²⁰⁷. After that, it was posted on various social media platforms, that are topic-wise related to games. Examples are:

- Reddit: r/rpg_gamers and r/GamersBeingBros,
- Facebook Pages: Woman Gamers, Gamers Guys & Girls, and Gamers Around the World
- Game forums: IGN, Student Edge Gamers, Steam, Ubisoft, Adventure Games and Eurogamer

The limitation of conducting an online survey is that there's no way of making sure that the participants will complete the QF gamer type quiz beforehand, which is prompted at the start. There's a chance that they just skipped it and answered the first question by selecting a random gamer type listed. It is also expected that the completion rate will suffer due to participants needing to complete two separate surveys at once. The estimated duration for completing both is predicted to be 15 minutes. The survey questions can be found in the appendix²⁰⁸.

After the optimal number of participants were collected, the data was processed and analysed using EFS Reporting+, an addon from the survey application Unipark²⁰⁹. It permits the researcher to transfer the data, analyse it, convert it into graphs and help with the evaluation of results.

As mentioned before, the presented insights will only focus on the narrative preferences of users in relation to their primary QF gamer types – regardless of whether they have an additional secondary type or not, mainly to ensure scope. Extra data obtained between users sharing the same primary gamer type, but different secondary ones (e.g., how narrative preferences differ between Architect/Bards, Architect/Gladiators, etc..), will be included in the appendix II – primarily to enable further reading or as reference for potential further research.

²⁰⁶ Cf. Yee, N., 2020

²⁰⁷ Cf. Unipark, n.d.

²⁰⁸ Cf. Sabarini, S., 2021b

²⁰⁹ Cf. Umfrageergebnisse sofort auswerten, darstellen und präsentieren, n.d

4. FINDINGS

4.1. Expert Interviews

Two expert interviews were conducted online with the following individuals:

- Participant A: Corporate storyteller, tabletop RPG designer and narrative design teacher²¹⁰. The expert interview was conducted via video call on the platform Google Meet.
- Participant B: Lead designer, creative director, and a game design degree course leader²¹¹. The expert interview was conducted per video call on the platform Google Meet.

4.1.1. Participant A's perspective

The first participant started off the interview by expressing how well known the QF concepts are in the game industry²¹². It is one of the frameworks he also uses in his personal projects, though the model selection depends on what he's currently working on²¹³. Being familiar with multiple psychological models helps to choose which one is right for the job – which is why he teaches them to his narrative design students as well.

However, it is difficult to use such motivational models in his corporate storyteller job, because clients often never heard of them and feel safer using a universally acknowledged model such as SWOT instead²¹⁴. He does express that it's difficult to rely on demographic assessments anymore, to deduce consumer behaviour. He recognizes that 50-year-old players will have similar game-related preferences as a 20-year-old one²¹⁵. Speculating with demographic models is easy, but it's most likely that their use will decrease in the next 10 years due to cultures overlapping globally²¹⁶.

When talking about how he uses the QF motivational concepts, the expert expressed that he uses them for marketing related tasks – identifying who his audience is, what the game needs to focus on, why users are playing the game and what they expect. It also helps with game design-related tasks, to evaluate which game mechanics are most suitable for the

²¹⁰ Cf. Sabarini, S., 2021c, Pg. 1

²¹¹ Cf. *Ibid*, Pg. 17f

²¹² Cf. *Ibid*, Pg. 2

²¹³ Cf. *Ibid*, Pg. 3f

²¹⁴ Cf. *Ibid*, Pg. 3

²¹⁵ Cf. *Ibid*, Pg. 7

²¹⁶ Cf. *Ibid*, Pg. 15

current customer's motivational drives or gamer types. He also revealed that he's currently developing his own motivational model, inspired by the QF one²¹⁷.

His biggest concern of using the QF concepts, is that clients often interpret the obtained data wrong, not knowing what they're reading²¹⁸. It is important to have an QF expert sit down with them, explain the model's insights and avoid any misunderstandings.

4.1.2. Participant B's perspective

This participant started off with expressing how intriguing the fields of narrative and gamer motivations are to him²¹⁹. When asked about his motivational model experiences, he explained that he has worked with multiple ones such as Bartle, QF, the Big Five, and Jung's archetypes – though which one he uses, mainly depends on the task²²⁰. Another factor is also whether he's working on a personal project or a commercial one – if it's personal, he'll use the model that would fit best. But if it's a commercial one, he switches to main competitor research instead, mainly because of the client.

He also revealed that, because he's frequently using multiple psychological models during his daily work, he decided to integrate them all into a single framework, creating his own model – which he refers to as the prismatic model. Each sub-model within it acts as a lens to view and understand customers' preferences/behaviours better²²¹. He explains that, in the end, all models are the same – they just differ by how they present the information, using different angles.

His prismatic model also aims to visualize correlations between the frameworks. When asked for an example, he described one correlation between Carl Jung and the QF motivational model - Carl Jung explains that a person consists of the self, the persona, and the shadow. The QF motivational model focuses on the self-aspect, as it dives into the player's intrinsic motivations.

A common pitfall of using the QF motivational model, is that clients might unintentionally substitute the insights gained with the gamers themselves. The reason why that doesn't work is because data obtained from it needs to be constantly updated – mainly because game development is an interactive process²²². A feature might be included during the beginning

²¹⁷ Cf. Ibid, Pg. 12

²¹⁸ Cf. Ibid, Pg. 8

²¹⁹ Cf. Ibid, Pg. 18

²²⁰ Cf. Ibid, Pg. 24

²²¹ Cf. Ibid, Pg. 19f

²²² Cf. Ibid, Pg. 26

stages of the development process, that users with specific motivational drives enjoy. But that feature might be cut during the next development milestone and the previous data obtained would not be valid anymore. Thus, when using the QF model, it is important to update the data gathered after every major change in the game’s development – ideally through player’s playtesting.

4.2. Online survey

The survey link was posted on the portals mentioned during the chapter “Application of survey”. It was opened by 811 participants, finished by 476 and had a completion rate of 58,7%. On average, it took 18 minutes to complete it²²³. The highest drop-out rate took place on the opening page, where participants were prompted to take the QF test first. However, it should be noted that the results will display only 475 participants instead of 476 because one of the submissions was completed incorrectly and had to be removed via filters.

The next section shows the findings in form of graphs and diagrams, using Unipark’s add-on EFS Reporting²²⁴. The x-axis of the diagrams will always show the users’ primary gamer types and how many of the 475 participants (n) belong to either of them for orientation. The question type (e.g., SCQ or MCQ) will always be stated to enhance understanding and should numbers be included, they’ll be in form of percentages with 1 decimal place.

4.2.1. Overview of gamer types

The following cross-table illustrates the 475 participants gamer types, based on a SCQ:

Secondary gamer types	Primary gamer types																	
	Acrobat		Gardener		Slayer		Skirmisher		Gladiator		Bounty Hunter		Bard		Architect		Ninja	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Acrobat	0	0.0%	1	2.8%	5	9.6%	3	12.5%	3	4.6%	1	1.2%	5	5.6%	8	10.5%	2	12.5%
Gardener	1	2.9%	0	0.0%	1	1.9%	0	0.0%	1	1.5%	4	4.9%	5	5.6%	4	5.3%	2	12.5%
Slayer	2	5.9%	6	16.7%	0	0.0%	3	12.5%	4	6.2%	6	7.3%	3	3.3%	12	15.8%	0	0.0%
Skirmisher	3	8.8%	1	2.8%	4	7.7%	0	0.0%	2	3.1%	4	4.9%	6	6.7%	1	1.3%	0	0.0%
Gladiator	2	5.9%	2	5.6%	7	13.5%	1	4.2%	0	0.0%	9	11.0%	4	4.4%	1	1.3%	2	12.5%
Bounty Hunter	6	17.6%	3	8.3%	9	17.3%	2	8.3%	5	7.7%	0	0.0%	9	10.0%	6	7.9%	5	31.3%
Bard	3	8.8%	5	13.9%	6	11.5%	4	16.7%	6	9.2%	8	9.8%	0	0.0%	10	13.2%	0	0.0%
Architect	1	2.9%	4	11.1%	3	5.8%	0	0.0%	4	6.2%	13	15.9%	9	10.0%	0	0.0%	0	0.0%
Ninja	0	0.0%	1	2.8%	2	3.8%	2	8.3%	4	6.2%	2	2.4%	1	1.1%	0	0.0%	0	0.0%
No secondary gamer type	16	47.1%	13	36.1%	15	28.8%	9	37.5%	36	55.4%	35	42.7%	48	53.3%	34	44.7%	5	31.3%
Total	34	100.0%	36	100.0%	52	100.0%	24	100.0%	65	100.0%	82	100.0%	90	100.0%	76	100.0%	16	100.0%

Table 10: Overview of participant’s gamer types (SCQ)²²⁵.

²²³ Cf. Unipark., 2021

²²⁴ Cf. Umfrageergebnisse sofort auswerten, darstellen und präsentieren, n.d

²²⁵ Sabarini, S., 2021d, Pg. 4

The next section showcases the findings obtained for each narrative preference topic (main characters, villains, settings, moods, story structures and genre-related preferences), without data-labels for readability (included however in the appendix version). As a reminder – due to scope, the findings will only focus on narrative preferences in relation to the participants primary gamer types (regardless of whether secondary types are present or not). How the preferences differ between participants with the same primary types, but different secondary ones (e.g., narrative preference of Acrobats, Acrobat/Gardener, Acrobat/Bounty Hunter, etc.) will be included in the appendix II.

4.2.2. Character preferences

4.2.2.1. Main character preferences

The first diagram was based on a single-choice question (SCQ) and shows whether participants with either of the nine primary gamer types, prefer their MCs to be the story's protagonist or not:

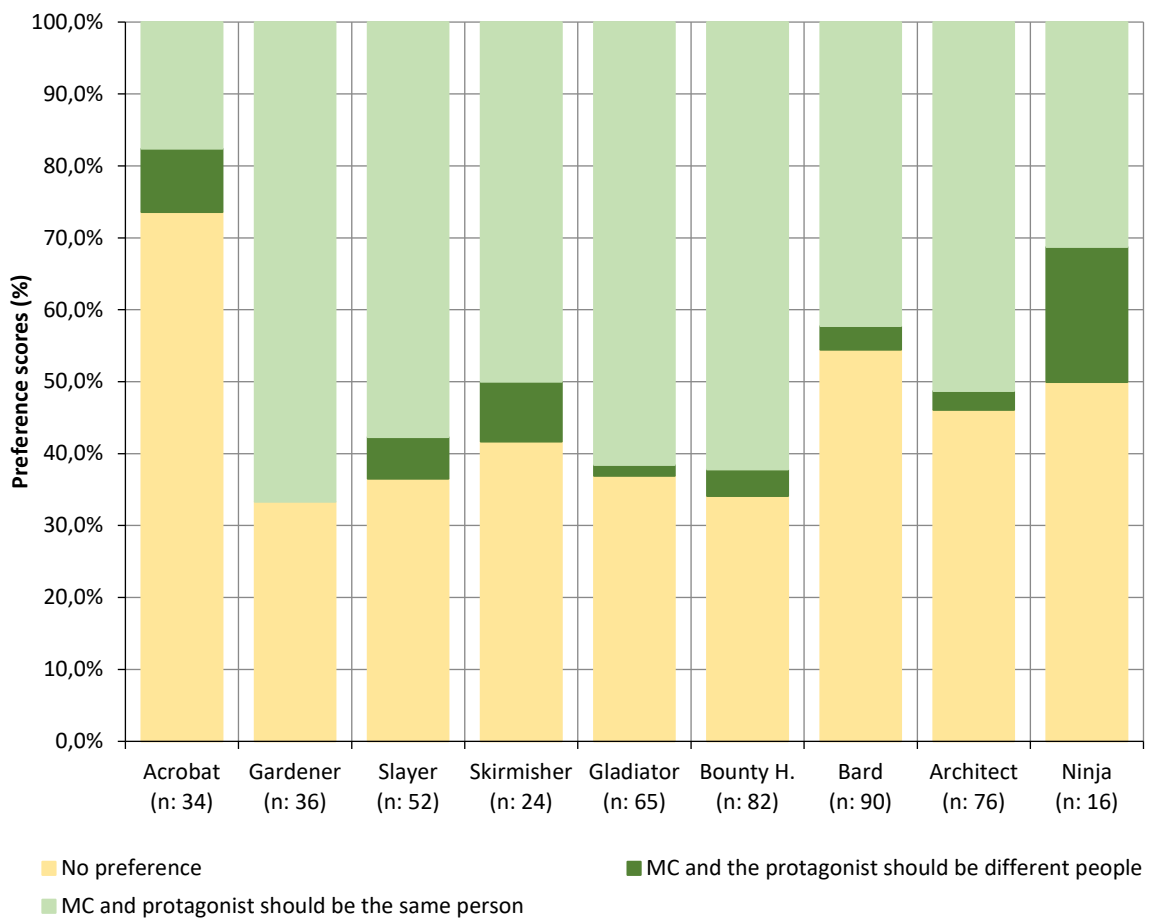


Figure 23: Main character and protagonist preferences (SCQ)²²⁶.

²²⁶ Ibid, Pg. 10

The second graph was based on a multiple-choice question (MCQ) and depicts which player-character types they'd prefer:

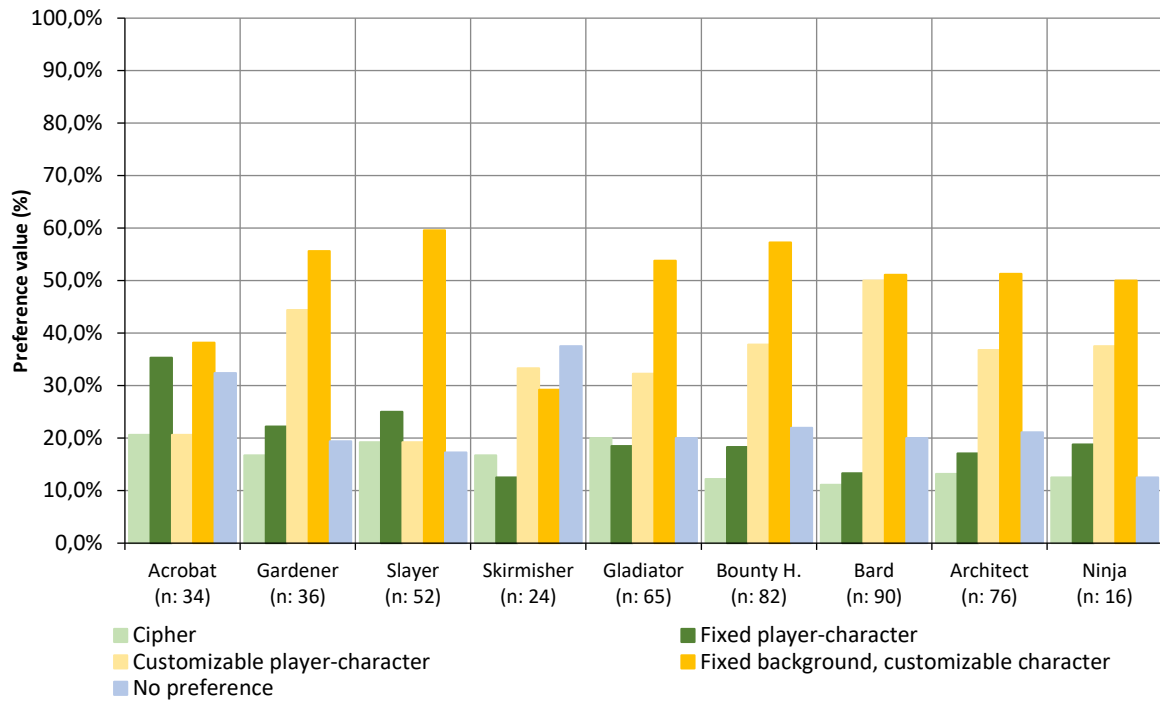


Figure 24: Player-character type preferences (MCQ)²²⁷.

The third graph (MCQ) shows the participants' main character arc preferences:

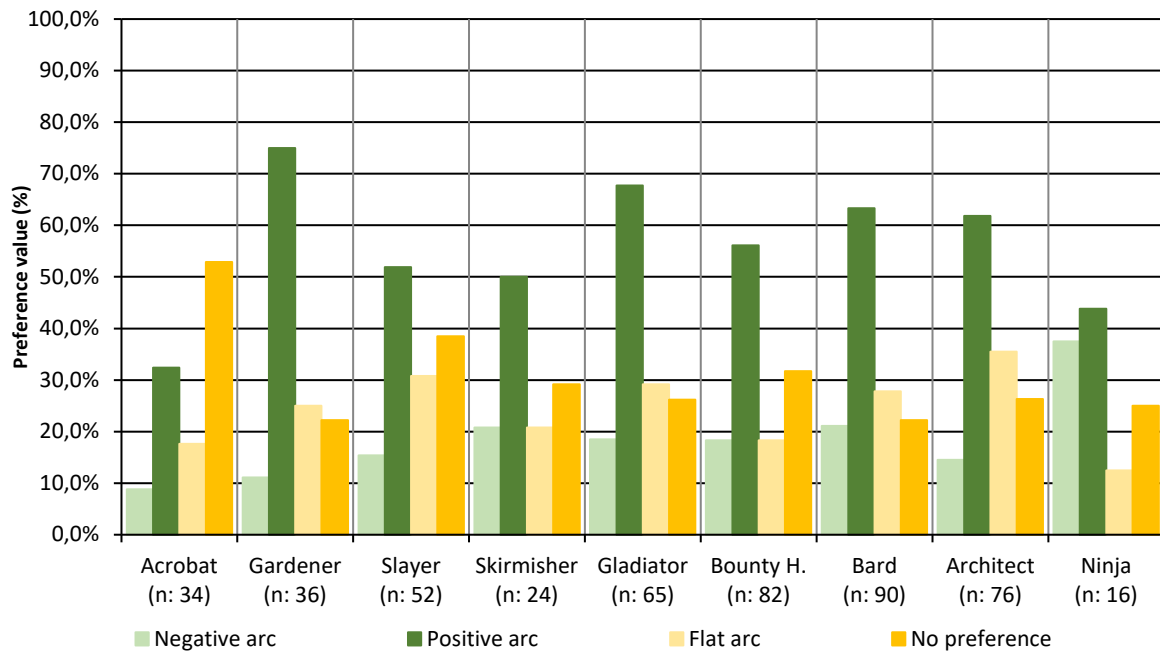


Figure 25: Main character arcs preferences (MCQ)²²⁸.

²²⁷ Ibid, Pg. 11

²²⁸ Ibid, Pg. 12

The last diagram (SCQ) shows which traits they'd like to share with their MC or not:

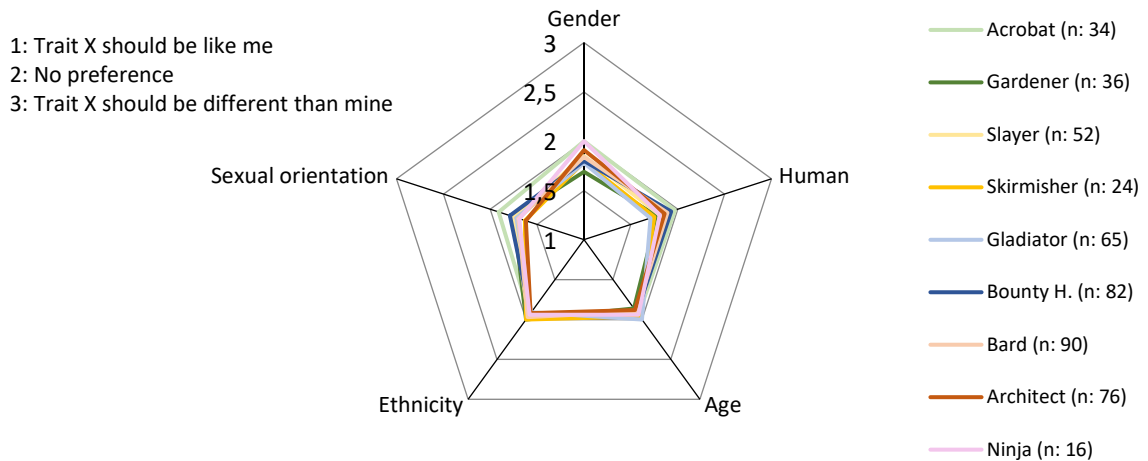


Figure 26: Main character traits preferences (SCQ)²²⁹.

The next section focuses on what kind of villains the participants with either of the nine primary gamer types would prefer.

4.2.2.2. Villain preferences

The first graph (MCQ) depicts whether participants with either of the nine primary gamer types want a villain to be present in the story and how they should cause conflict:

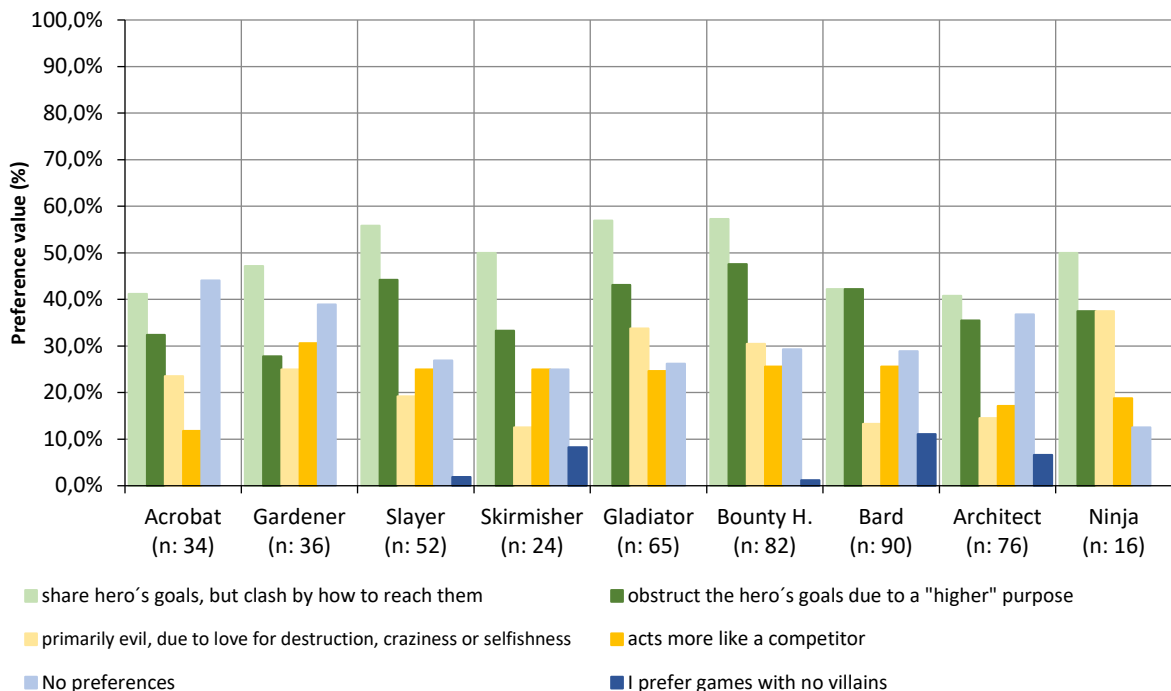


Figure 27: Villain behaviour preferences (MCQ)²³⁰.

²²⁹ Ibid, Pg. 13

²³⁰ Ibid, Pg. 15

The second graph (SCQ) shows whether they'd prefer active or passive villains:

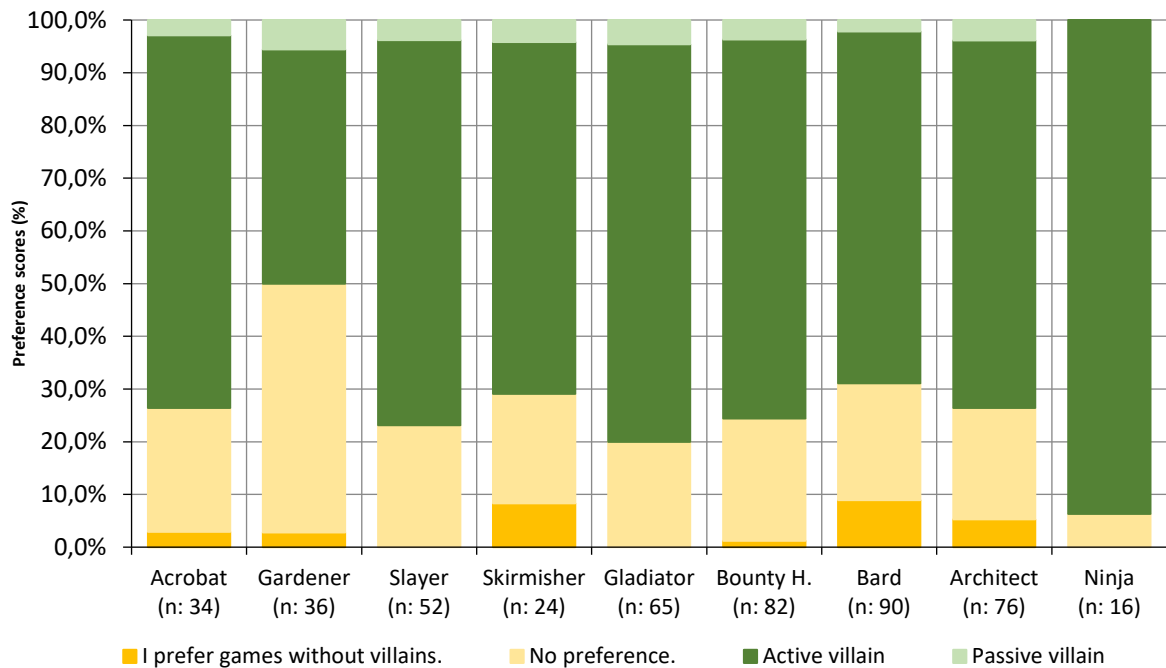


Figure 28: Passive- or active villain preferences (SCQ)²³¹.

The third graph (MCQ) shows the participants' villain arc preferences:

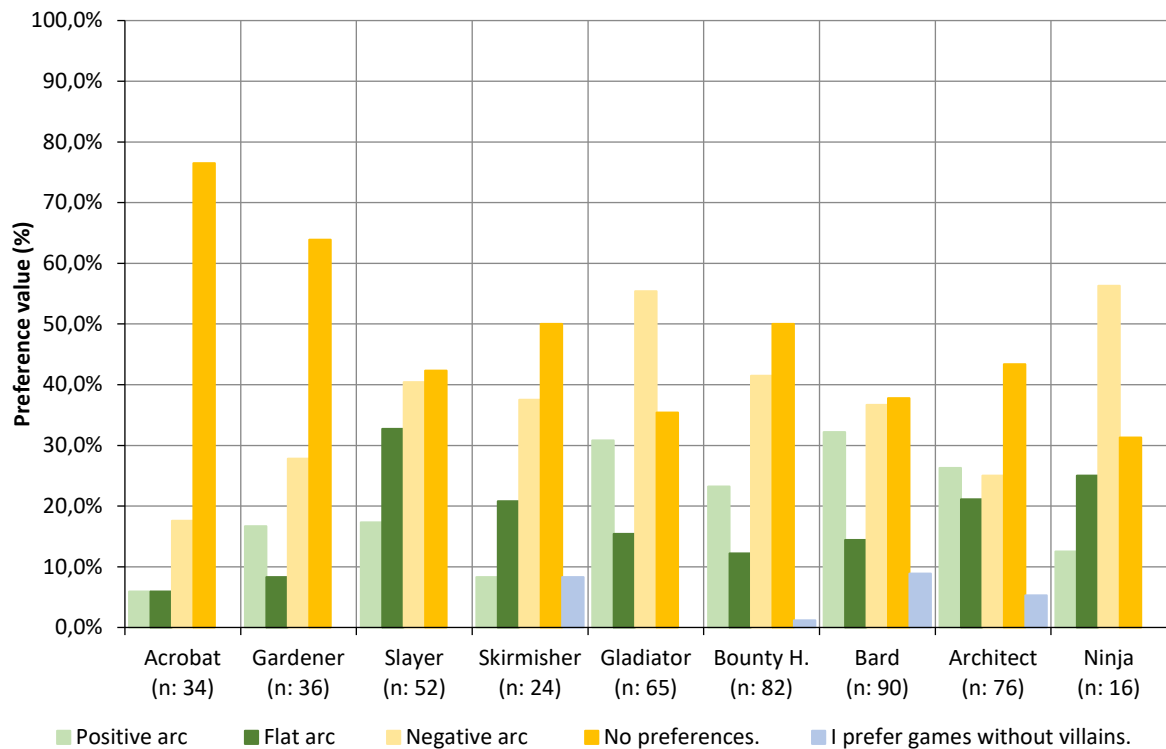


Figure 29: Villain arcs preferences (MCQ)²³².

²³¹ Ibid, Pg. 16

²³² Ibid, Pg. 17

The last diagram (SCQ) illustrates which traits they'd like to share with the villain or not:

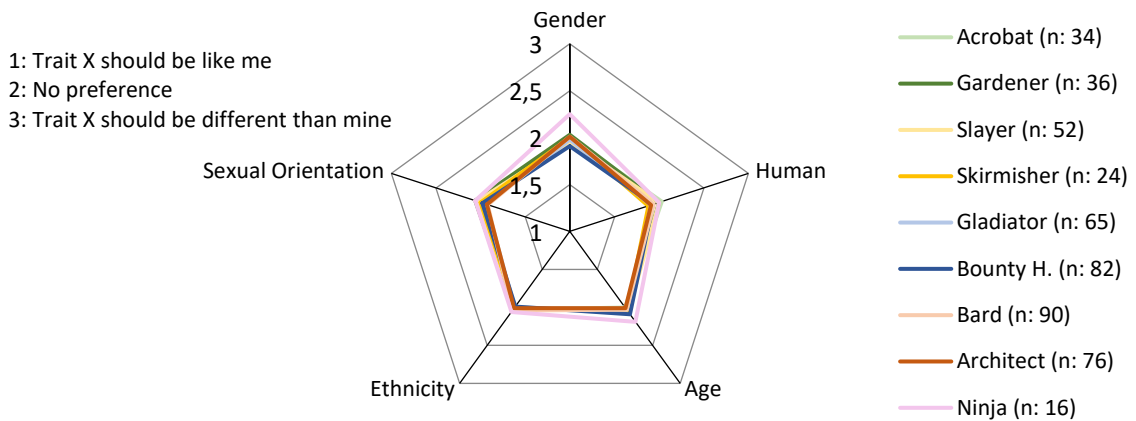


Figure 30: Villain traits preferences (SCQ)²³³.

This concludes the character preference findings in relation to participants primary QF type. The next section focuses on their preferred settings and moods.

4.2.3. Setting and mood preferences

4.2.3.1. Setting preferences

The first graph (MCQ) depicts which settings participants with either gamer type preferred:

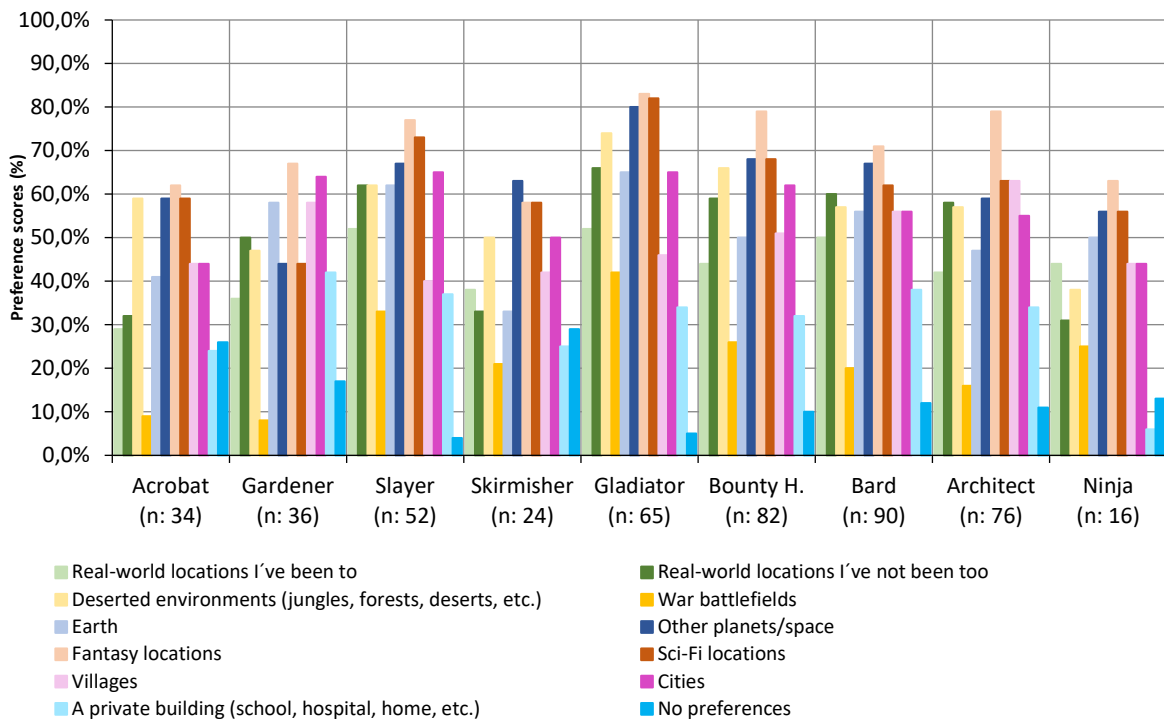


Figure 31: Setting preferences (MCQ)²³⁴.

²³³ Ibid, Pg. 18

²³⁴ Ibid, Pg. 20

The next two diagrams (MCQ) depict their preferred time-periods and were split for a better overview:

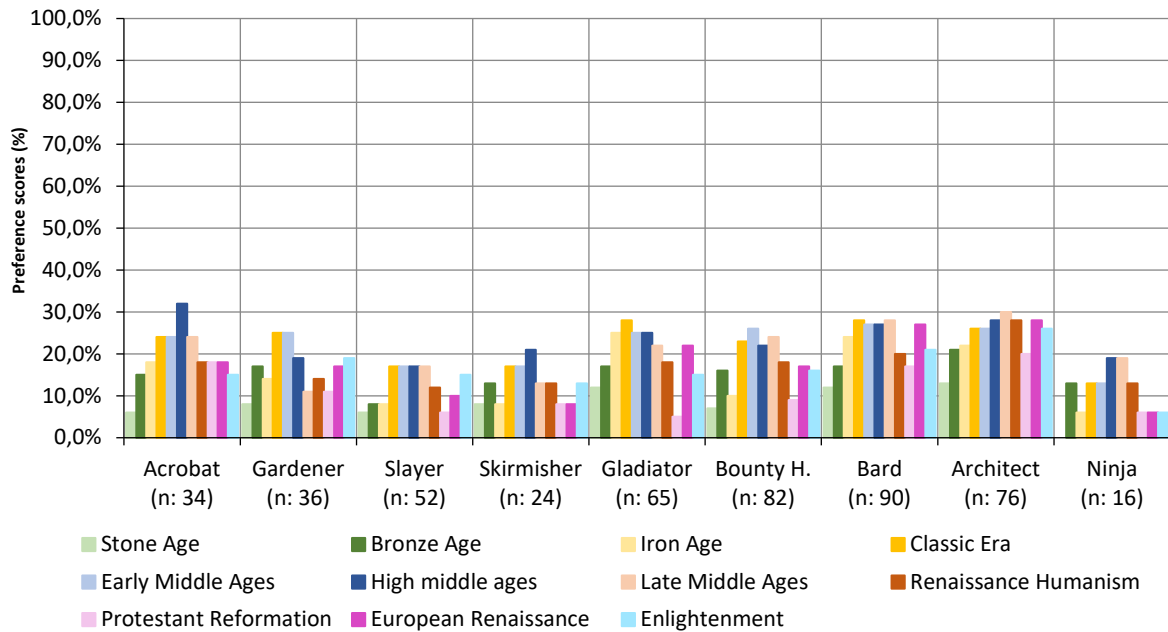


Figure 32: Setting preferences I (MCQ)²³⁵.

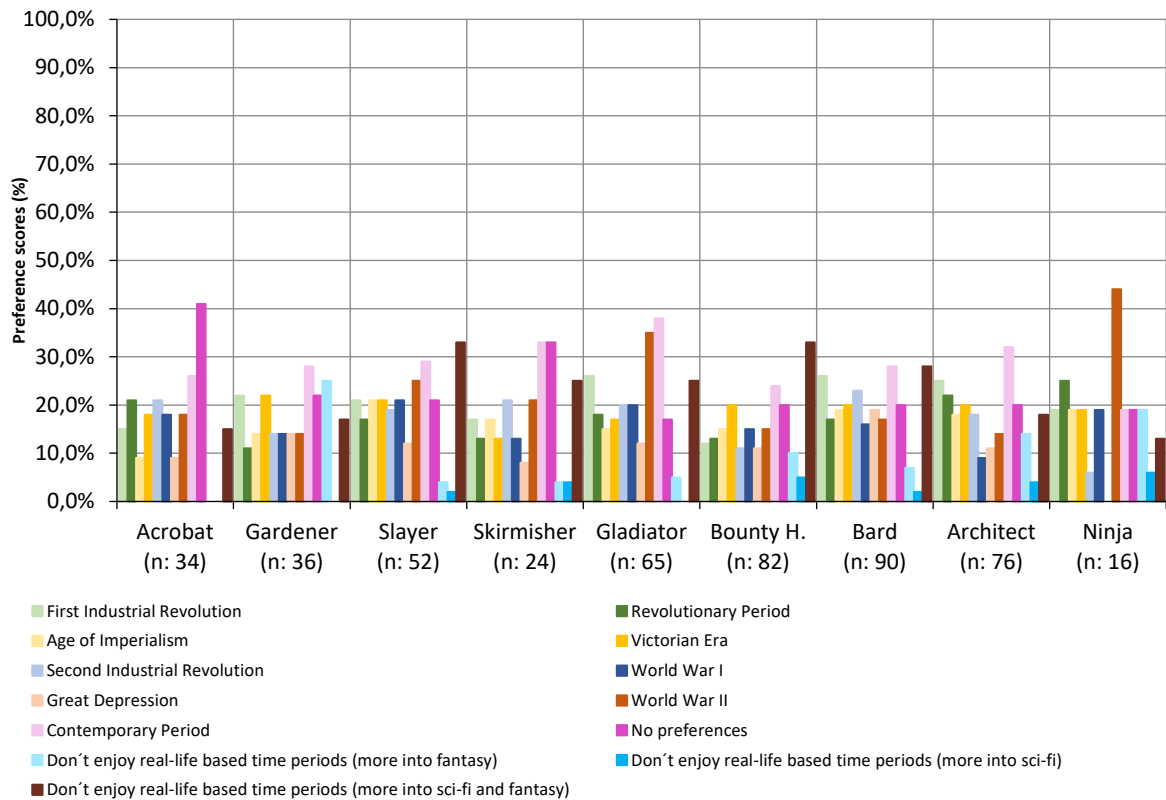


Figure 33: Setting preferences II (MCQ)²³⁶.

²³⁵ Ibid, Pg. 21

²³⁶ Ibid, Pg. 22

4.2.3.2. Mood preferences

The following two graphs (MCQ) show which moods they'd prefer to experience while playing a video game - subdivided as well, for a better overview:

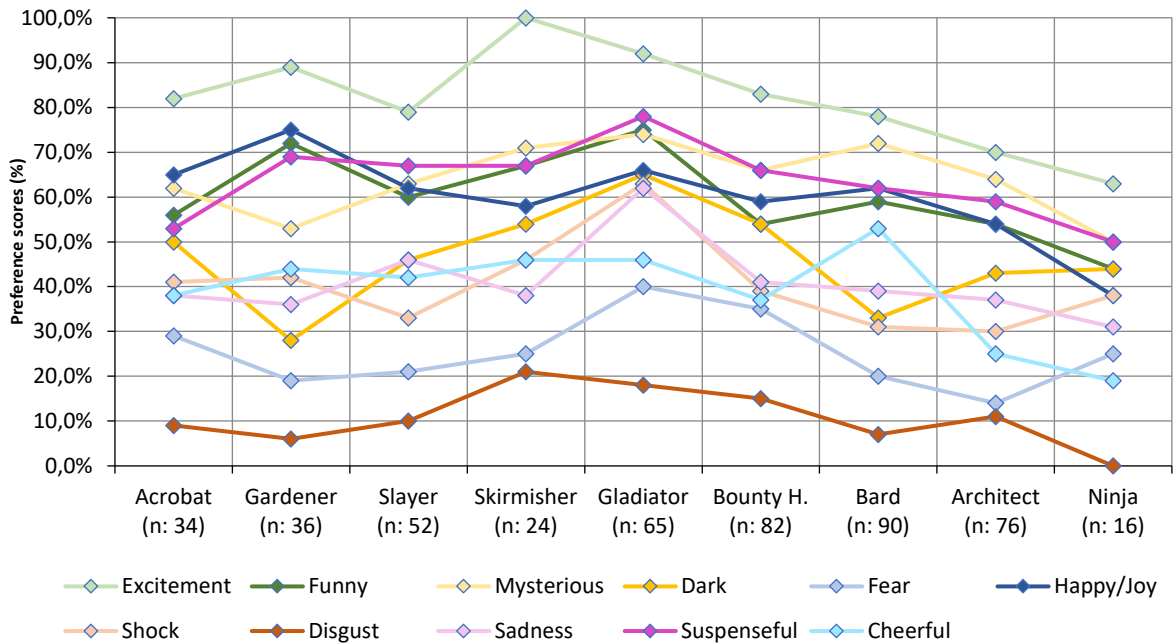


Figure 34: Mood preferences I (MCQ)²³⁷.

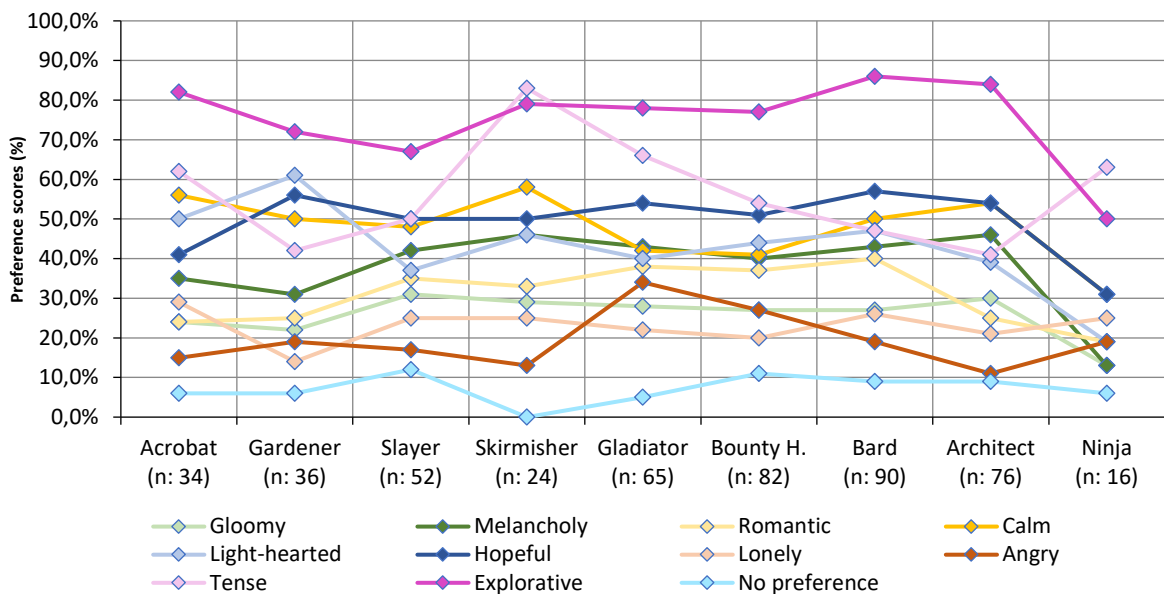


Figure 35: Mood preferences II (MCQ)²³⁸.

This completes the findings obtained about their preferred settings and moods. The next section focuses on their ideal story structure elements.

²³⁷ Ibid, Pg. 23

²³⁸ Ibid, Pg. 24

4.2.4. Story structure preferences

The first diagram (MCQ) shows which conflict types, gamers with either of the nine primary gamer types prefer:

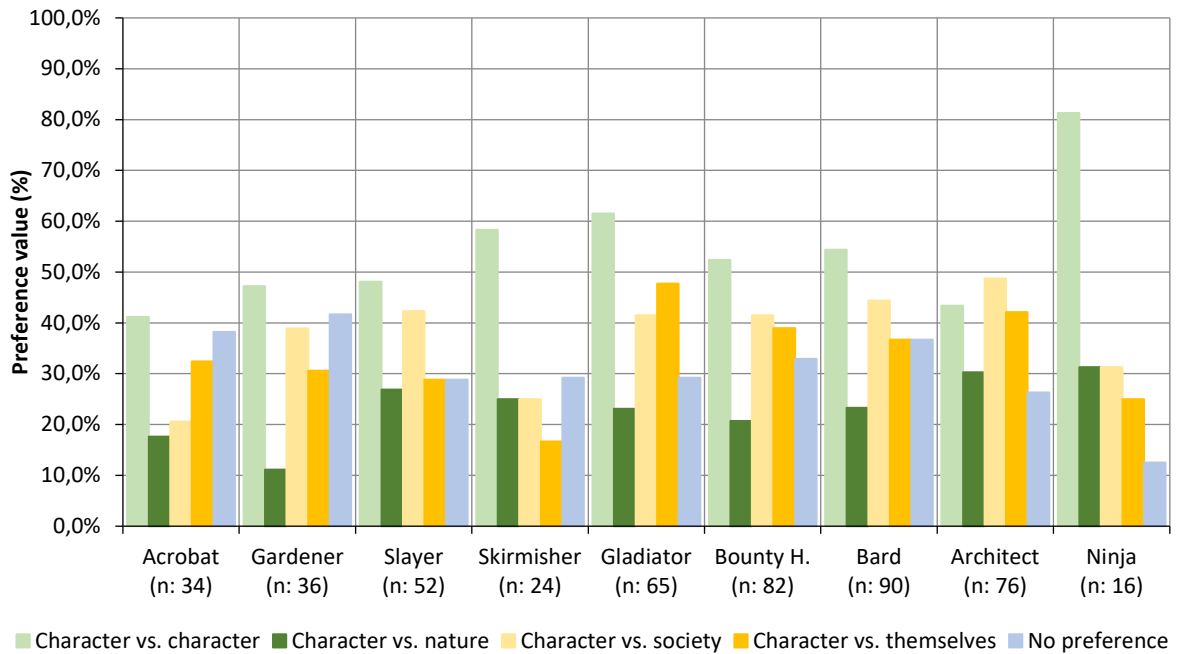


Figure 36: Conflict type preferences (MCQ)²³⁹.

The second diagram showcases their preferences regarding story focus types:

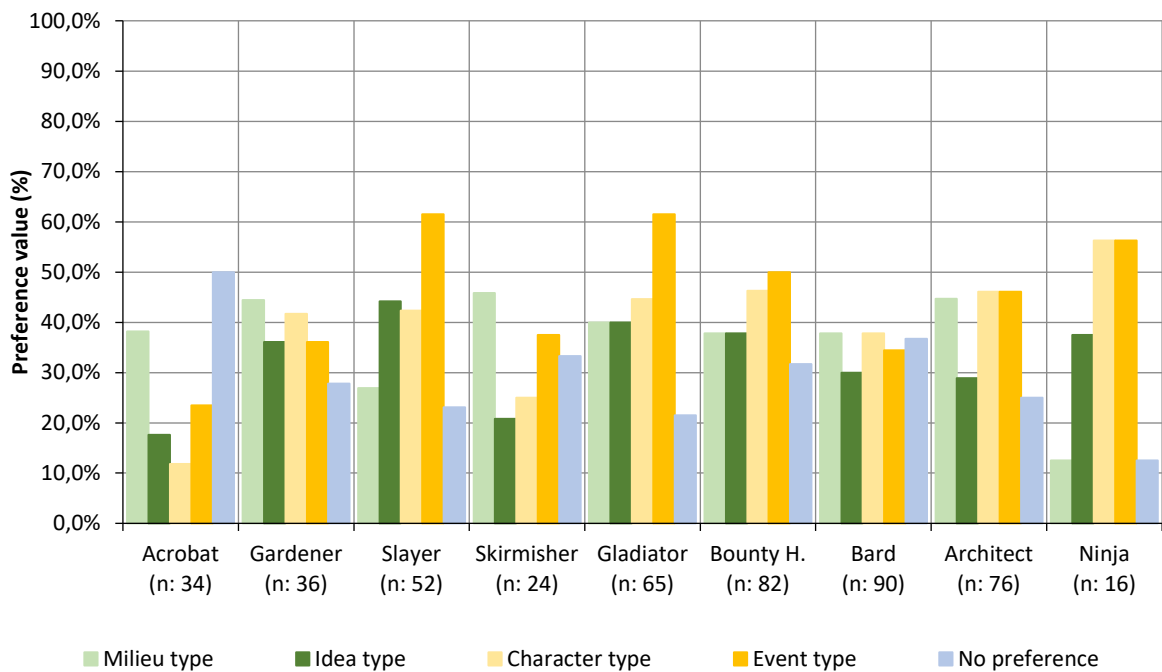


Figure 37: Story focus type preferences (MCQ)²⁴⁰.

²³⁹ Ibid, Pg. 26

²⁴⁰ Ibid, Pg. 27

The third diagram shows which narrative structures (linear, branched, or open) they'd prefer:

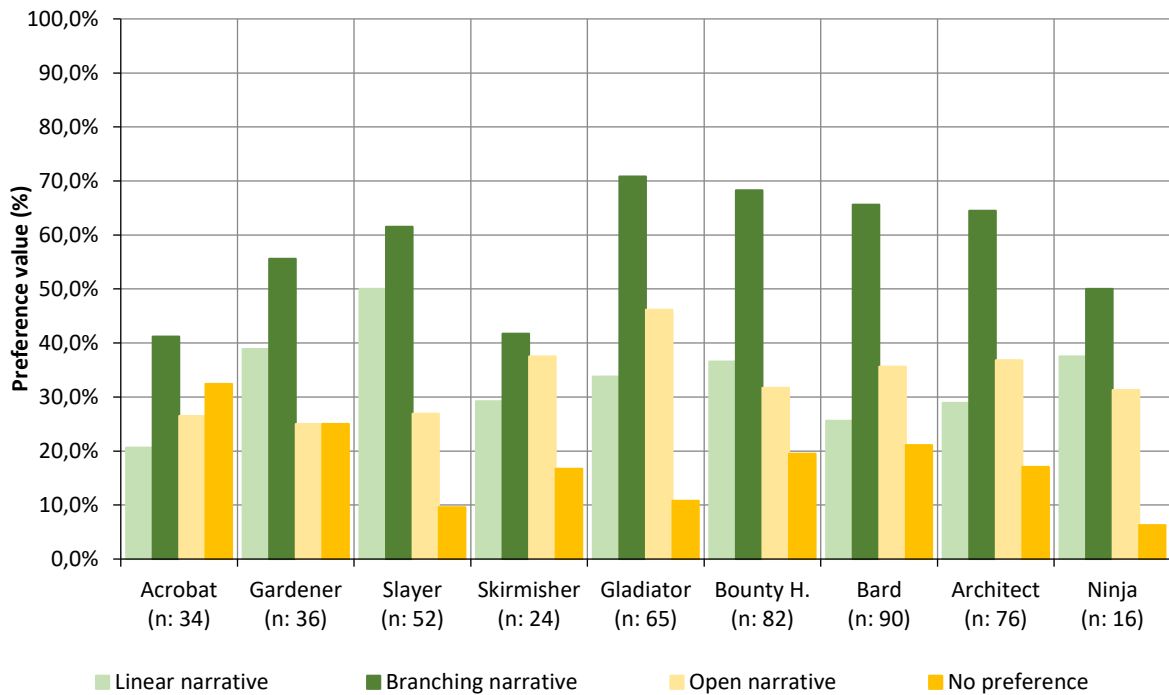


Figure 38: Narrative branching preferences (MCQ)²⁴¹.

The last diagram (SCQ) focuses on which story endings they'd enjoy more:

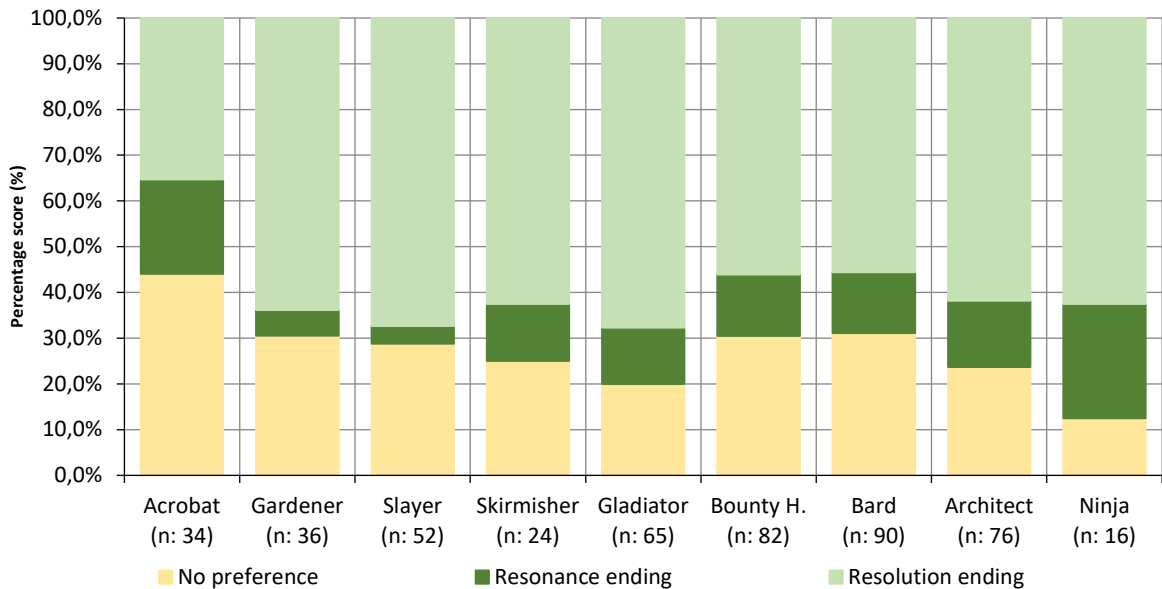


Figure 39: Story ending preferences (SCQ)²⁴².

This concludes the findings obtained about preferred story structures. The next chapter focuses on the participants' ideal perspectives and narrator types.

²⁴¹ Ibid, Pg. 28

²⁴² Ibid, Pg. 29

4.2.5. Perspective and narrator preferences

4.2.5.1. Perspective preferences

The following diagram (MCQ) indicates which in-game perspectives they'd prefer:

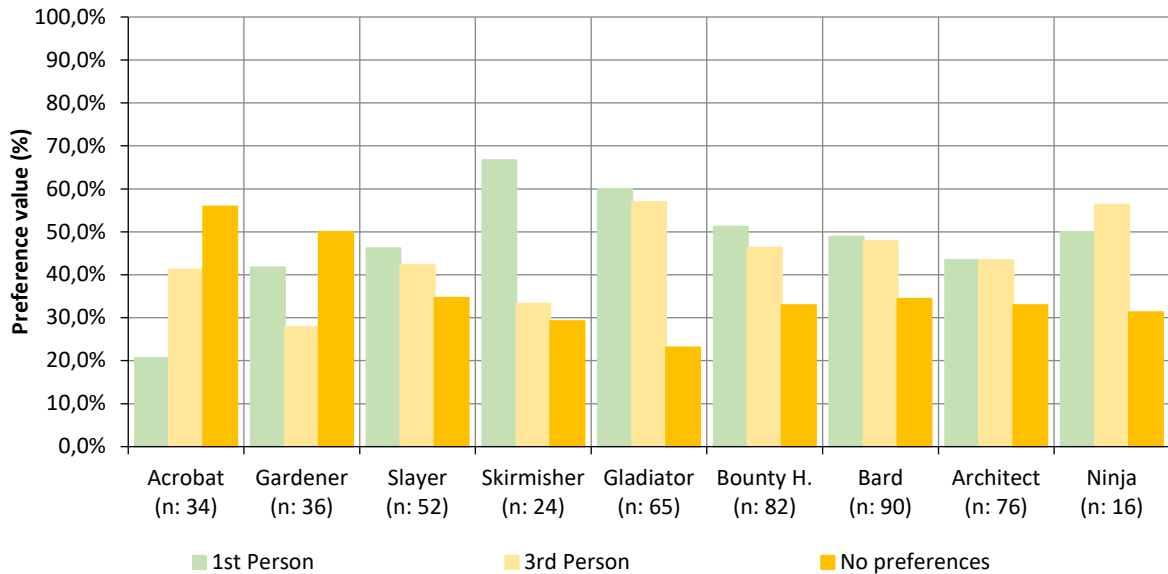


Figure 40: In-Game perspective preferences (MCQ)²⁴³.

4.2.5.2. Narrator preferences

The following graph (MCQ) shows whether a narrator should be present and in which form:

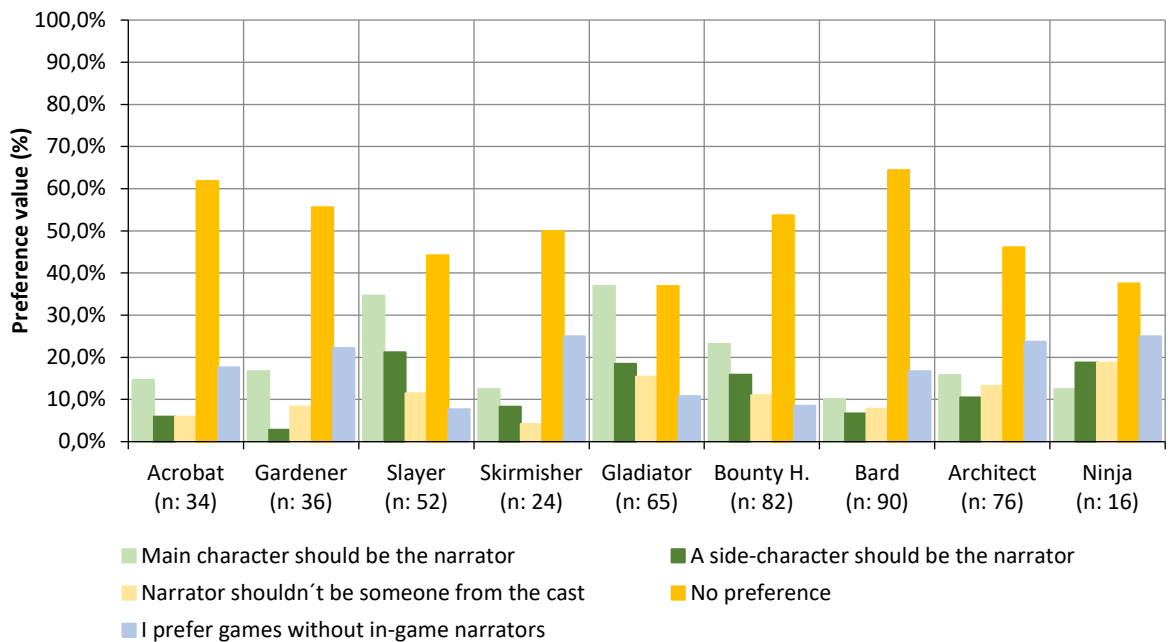


Figure 41: Narrator presence preferences (MCQ)²⁴⁴

²⁴³ Ibid, Pg. 31

²⁴⁴ Ibid, Pg. 32

The next graph (MCQ) shows which narrator types and traits they'd prefer:

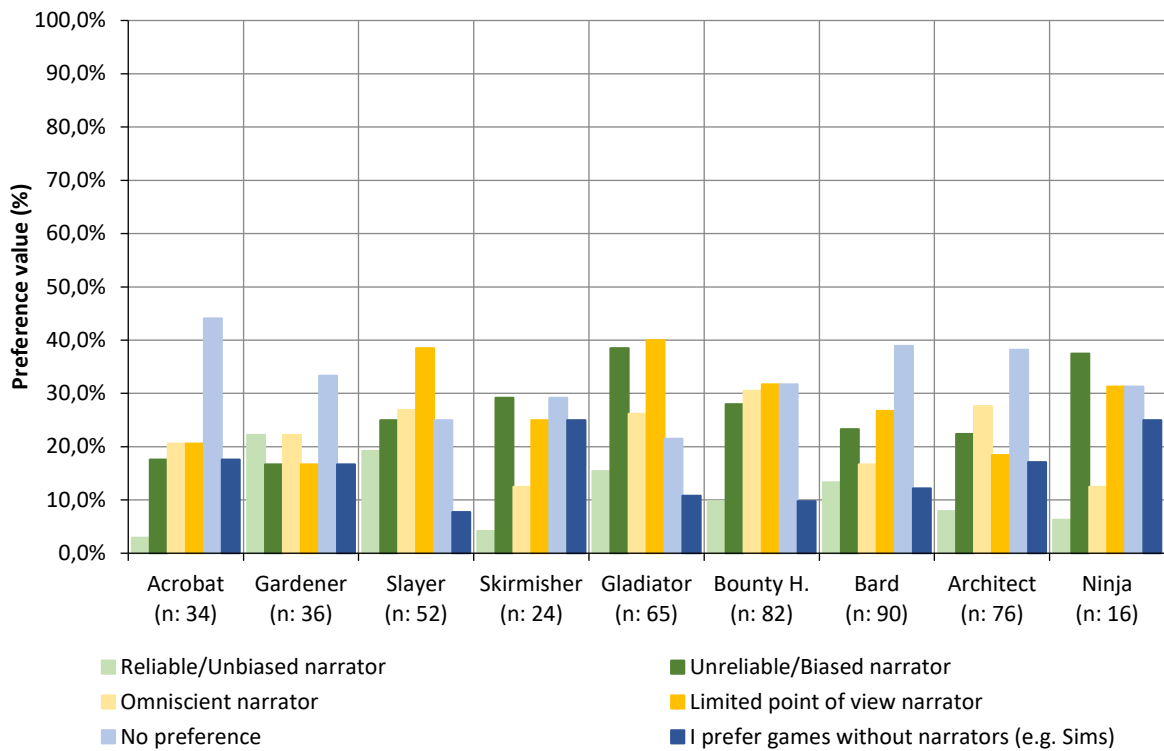


Figure 42: Narrator type preferences (MSQ)²⁴⁵.

The last graph (SCQ) depicts whether a presentational or representational experience is preferred:

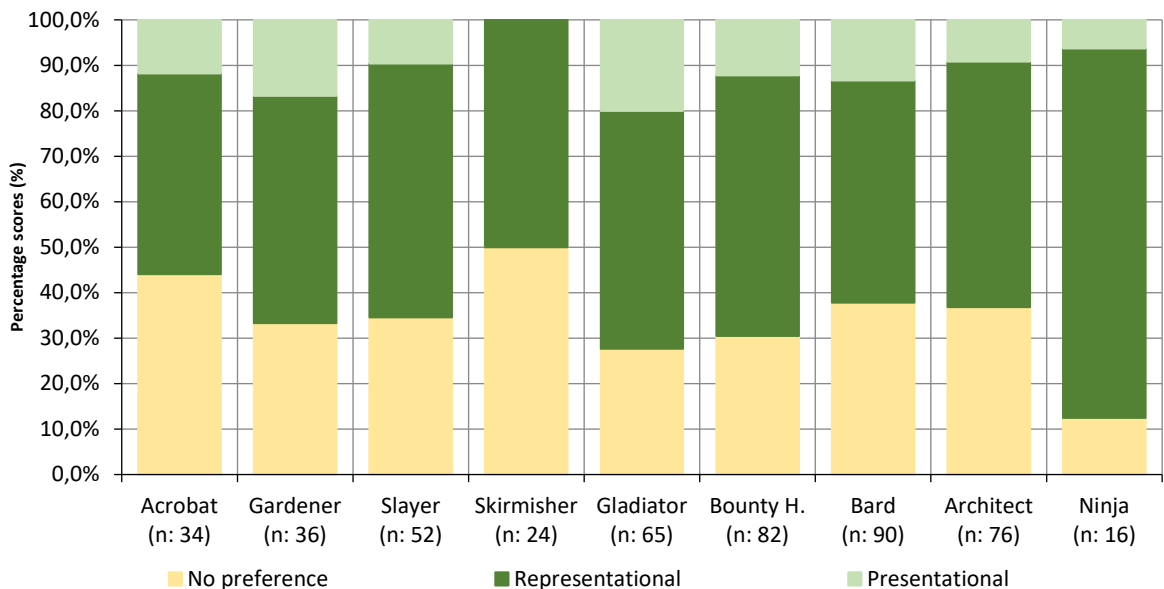


Figure 43: Presentational/Representational experience preference (SCQ)²⁴⁶.

²⁴⁵ Ibid, Pg. 33

²⁴⁶ Ibid, Pg. 34

4.2.6. Genre preferences

The last narrative topic focuses on genre-related preference findings. The first diagram (MCQ) shows whether magic should be included and in which form (sci-fi option included):

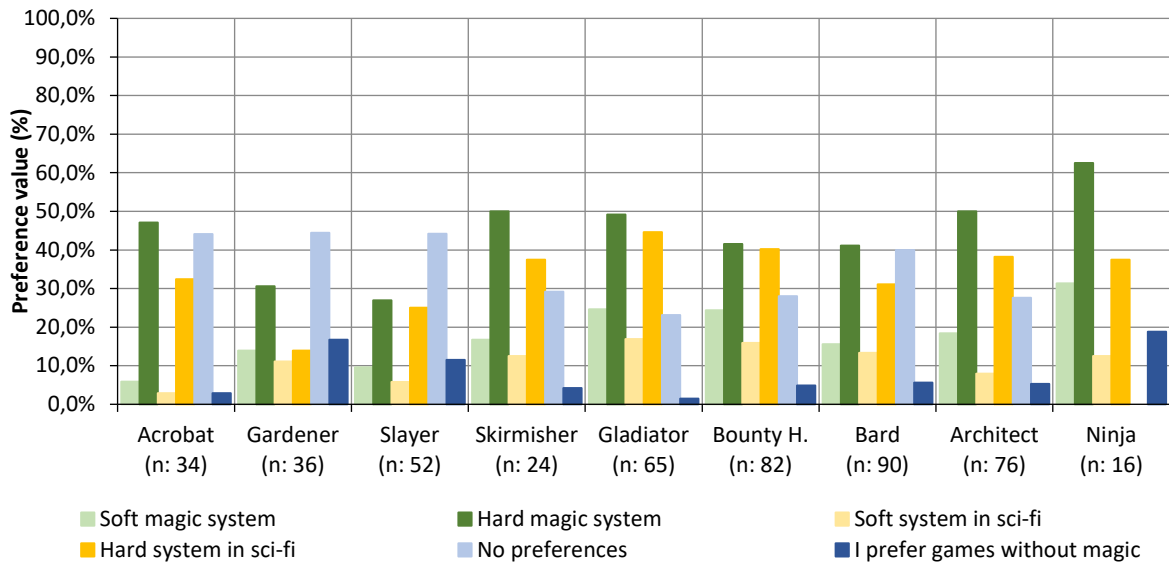


Figure 44: Inclusion of magic type preferences (MCQ)²⁴⁷.

The last diagram (MCQ) showcases whether the participants with either of the nine primary gamer types prefer the inclusion of religion or not:

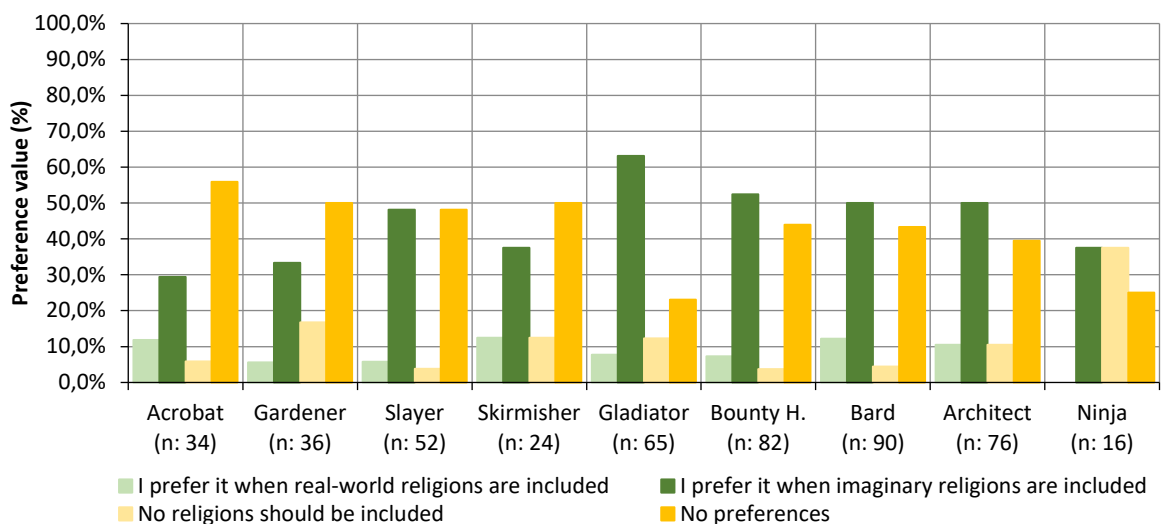


Figure 45: Inclusion of religion preference (MCQ)²⁴⁸.

Findings were also obtained about which game genres the participants prefer – but since this insight is already included in the QF test results, the graphs can be found in the appendix²⁴⁹.

²⁴⁷ Ibid, Pg. 42

²⁴⁸ Ibid, Pg. 43

²⁴⁹ Ibid, Pg. 36 - 41

5. DISCUSSION OF FINDINGS & CONCLUSION

5.1. Discussion of expert interviews findings

The expert interviews gave the impression that many motivational models, including the Quantic Foundry one, are often used by narrative designers - either to understand their potential customers better or to figure out whether a potential game mechanic would suit a specific motivational drive. However, when testing these elements, it is important to consider, that whenever some game aspect is changed, the previous data loses its validity – therefore, multiple tests need to be conducted throughout the game's development, to ensure that the insights are usable.

No model is also the perfect one for every job, which is why it's useful to become familiar with multiple behavioural or motivational frameworks – knowing that they all function the same way but give a different perspective on user behaviour or preferences.

The insights obtained just give a brief impression of how motivational models are viewed by the game industry – as only two expert interviews were conducted. Both of them had positive opinions about the models, though it would have been interesting to hear the opinion of someone who'd advise against them and why. Thus, there is the potential opportunity for further research, where more expert interviews could be conducted with individuals from various game fields – especially from game research or generally outside of narrative design.

Another limitation that occurred during the expert interviews' recruitment procedure, is that some individuals claimed to be experts, only to be proven false during the call. Because of that, one of the expert interviews could not be included for the thesis. To avoid that in the future, pre-interviews should be conducted, to make sure the participants meet the criteria.

5.2. Discussion of survey findings

The first aspect about the 475 participants is the distribution of the primary gamer types²⁵⁰:

Acrobats	Gardeners	Slayers	Skirmishers	Gladiators	Bounty H.	Bards	Architects	Ninjas
7,2%	7,6%	10,9%	5,1%	13,7%	17,3%	18,9%	16,0%	3,4%

Table 11: Distribution of primary QF gamer types ²⁵¹.

²⁵⁰ Cf. Sabarini, S., 2021d, Pg. 8

²⁵¹ Cf. Ibid

It would have been ideal to have equal proportions amongst the participants' gamer types, each of them taking up around 11,1%. Bards and Bounty Hunters being more prominent however, hints towards a possible influence from the forums and social media channels the survey link was posted in. The most active channels with the highest participation numbers were the Adventure Games forums²⁵², the Bethesda forums²⁵³ the Eurogamer forums²⁵⁴ and the sub-reddit GamersBeingBros²⁵⁵. No responses came from the Steam- or PC Gamer forums, while the IGN- and Ubisoft forums reported the post as spam and banned the linked account. Perhaps the more active portals primarily targeted Bounty Hunter players and less the Ninjas or Skirmishers. It would be a research opportunity to investigate which game-related forums appeal to gamers with a specific primary gamer type and why.

Another noticeable aspect was the ratio between participants with a secondary gamer type and those without one – the data shows that within a group of participants sharing the same primary gamer type, the number of people with an additional secondary type were more common compared to those without one – making up to more than 50,0% as seen in table 10²⁵⁶. The insight that gamers with a secondary type are more common than those without one, was not revealed on the QF website and neither on any of their user reports.

The next section will focus on interpreting the results from the previous finding chapter, which will also answer the first research question: which narrative elements of digital games are preferred by the nine primary Quantic Foundry gamer types? It is recommended to use the diagrams from the findings chapter as reference, while discussing the results.

5.2.1. Acrobat gamer types

Out of 475 participants, 34 (7,2%) had the Acrobats as the primary gamer type. 16/34 of them didn't have a secondary type and 18/34 did – the exact distribution can be seen on table 10²⁵⁷.

Acrobats are solo players, who want a challenging gameplay with moderate pacing and thinking segments. Because of that, world-building isn't too important to them – also

²⁵² Cf. Sabarini, S., 2021n

²⁵³ Cf. Sabarini, S., 2021m

²⁵⁴ Cf. Sabarini, S., 2021o

²⁵⁵ Cf. Sabarini, S., 2021q

²⁵⁶ Cf. Sabarini, S., 2021d, Pg. 4

²⁵⁷ Cf. Ibd

reflected in their story motivational score, which is only 9,0%²⁵⁸. With that in mind, their preferences for each narrative topic explored in the theoretic framework are the following:

In terms of **main characters preferences**, it is unsurprising that gamers with the primary Acrobat type don't mind too much whether their MC is also the story's protagonist or not (no preferences option 73,5%)²⁵⁹. The same behaviour can be seen when asked about their favourite player-character type, where none of the options exceed the 50,0% mark (the fixed background, customizable character reaching 38,2%, followed by the fixed player-character with only 35,3%)²⁶⁰. They also don't deem any particular arc more favourable than the other (52,9% no preference) but would choose the positive one (32,4%) slightly over the flat (17,6%)- or negative arc (8,8%)²⁶¹. Lastly, they have no preferences about whether the MC should resemble them by sharing similar traits or not.

The **preferences for villains** are a bit more specific in some areas – they strongly prefer active villains (70,6%) over passive ones (2,9%) but are split when it comes to how the villain causes conflict²⁶². None of the methods go above the 50,0% mark and are rather split between wanting the villain to share the hero's goal but clashing by methods (41,2%), obstructing them for a higher purpose (32,4%) or having no preferences about it (44,1%)²⁶³. When it comes to villain arcs, no option is particularly favoured (76,5% no preferences) and the Acrobat gamers are also not particularly picky about which traits are shared between them and the game's villains²⁶⁴.

When it comes to their **setting preferences**, the most enjoyable ones are fantasy locations (61,8%), anywhere away from earth (58,8%) and even deserted locations (58,8%)²⁶⁵. However, when it comes to time-periods, none of the options make it above the 50,0% mark – the most selected option being no preferences (41,2%). All the other options reside within the 10,0% - 20,0% range, with the exception of the High Middle Ages (32,4%)²⁶⁶.

²⁵⁸ Cf. Yee, N., 2020

²⁵⁹ Cf. Sabarini, S., 2021d, Pg. 10

²⁶⁰ Cf. *Ibd*, Pg. 11

²⁶¹ Cf. *Ibd*, Pg. 12f

²⁶² Cf. *Ibd*, Pg. 16

²⁶³ Cf. *Ibd*, Pg. 15

²⁶⁴ Cf. *Ibd*, Pg. 17f

²⁶⁵ Cf. *Ibd*, Pg. 20ff

²⁶⁶ Cf. *Ibd*, Pg. 21f

Regarding **mood preference**, there is a strong tendency towards exploration and excitement (both 82,4%), followed by joy, mystery, and tension (60,0% – 70,0%). The least favourite option was disgust (5,6%)²⁶⁷.

In terms of **story structure preferences**, the Acrobats don't have a strong inclination when it comes to conflict types, as none of the options make it above 50,0%. The highest choice was character vs character (41,2%), followed by character vs. themselves (32,4%), while another fair portion had no preferences (38,2)²⁶⁸. The same is visible in their story focus preferences, where the most common option was no preferences (50,0%), followed by milieu types (38,2%). They also don't seem to mind whether the story branches off or not, as the highest option being branching narratives only reaches 41,2%²⁶⁹. What kind of endings they prefer is rather split as well – leading option being no preferences (44,1%), but slightly favouring resolution endings (35,3%) over resonance (20,6%) ones²⁷⁰.

Their preferences regarding **perspectives and narrators** tend to be rather indifferent as well. When it comes to which perspective they enjoy playing in, the highest option tends towards having no preferences (55,9%), but still hinting that they'd pick 3rd person (41,2%) over 1st person (20,6%) if they had to²⁷¹. Who the narrators embody is also not too important (61,8% no preferences) or how they behave (44,1% no preferences)²⁷². Regarding their preferred experience type, half of them have no preferences (44,1%) while the other half would pick the representational (44,1%) experience over the presentational (11,8%) one²⁷³.

When it comes to **genre-related** preferences, specifically whether magic should be included and in which form, no options go above the 50,0% mark, mainly because the choices are split between wanting a hard magic system (47,1%) in a fantasy setting or having no preferences about it (44,1%). When it comes to a sci-fi setting, Acrobats would nonetheless prefer a hard system (32,4%) over a soft system (2,9%)²⁷⁴. When it comes to inclusion of religion, the most commonly selected option was no preferences (55,9%), with a small tendency to pick an imaginary religion (29,4%) over the other remaining options²⁷⁵.

²⁶⁷ Cf. *Ibd*, Pg. 23f

²⁶⁸ Cf. *Ibd*, Pg. 26

²⁶⁹ Cf. *Ibd*, Pg. 28

²⁷⁰ Cf. *Ibd*, Pg. 29

²⁷¹ Cf. *Ibd*, Pg. 31

²⁷² Cf. *Ibd*, Pg. 32f

²⁷³ Cf. *Ibd*, Pg. 34

²⁷⁴ Cf. *Ibd*, Pg. 42

²⁷⁵ Cf. *Ibd*, Pg. 43

5.2.2. Gardener gamer types

Out of 475 participants, 36 (7,6%) had Gardeners as their primary gamer type. 13/36 of them didn't have an additional secondary one and 23/36 did – the exact distribution can be seen on table 10²⁷⁶.

Gardeners seek a quiet place, where they can relax. Rules are to be presented upfront, so they always know what to do – they'll welcome anything that doesn't cause confusion or stress. Because of that, Gardeners don't have a high story score (23,0%), similarly to the Acrobats²⁷⁷. Their preferences for each narrative topic are the following:

In terms of **main character preferences**, Gardeners do rather enjoy an MC, that is also the story's protagonist (66,7%), but when it comes to favourite player-types, only the fixed background, customizable characters (55,6%) choice makes it above the 50,0% mark, followed by the fully customizable player-characters (44,4%) type²⁷⁸. Arcs are strongly preferred to be positive (75,0%) and they'd ideally like to share the following traits with their MC: gender, being human, age and sexual orientation²⁷⁹. However, there is no preference about sharing ethnicity.

The **villain preferences** indicate that Gardeners don't have a strong inclination whether their villain should be active or not – half of them having no preferences (47,2%), followed by active (44,4%) types and passive (5,6%) ones²⁸⁰. The same is mirrored in how the villains should be present in the game – neither option make it above the 50,0% mark, the most common choice being that villains should share the hero's goals but clash by methods (47,2%), followed by no preferences (38,9%)²⁸¹. Regarding the arcs of villains, Gardeners most commonly selected no preferences (63,9%) and also don't mind which traits are similar to them or not²⁸².

In terms of **settings**, the options that make it above the 50,0% mark are fantasy locations (66,7%), cities (63,9%), villages (58,3%) and earth (58,3%), while war battlefields were the least favourite one (8,3%)²⁸³. When it comes to time-periods though, none of the options

²⁷⁶ Cf. *Ibd*, Pg. 4

²⁷⁷ Cf. Yee, N., 2020

²⁷⁸ Cf. Sabarini, S., 2021d, Pg. 10f

²⁷⁹ Cf. *Ibd*, Pg. 12f

²⁸⁰ Cf. *Ibd*, Pg. 16

²⁸¹ Cf. *Ibd*, Pg. 15

²⁸² Cf. *Ibd*, Pg. 17f

²⁸³ Cf. *Ibd*, Pg. 20ff

make it above the 50,0% mark and rather reside within the 10,0% - 28,0% range – the contemporary period being the most common choice (27,8%).

Mood-wise, Gardeners strongly prefer excitement (88,9%), as well as joy, fun, exploration, and suspense (69,0 – 75,0%). What should be avoided is anything that causes disgust, fear, loneliness, or anger (< 20,0%)²⁸⁴.

In terms of **story-structure**, Gardener's don't have a strong preference regarding conflict-types, as the highest option character vs. character scored 47,2%, followed by no preferences (41,7%) and the least favourite option being character vs. nature (11,1%)²⁸⁵. For story-focus types, the preferences are also not too strong – milieu being the top choice with 44,4%, followed by character type (41,7%) and deeming idea and event type the same (both 36,1%). When it comes to narrative structures, there's a slight tendency towards branching narratives (55,6%), followed by the linear ones (38,9%)²⁸⁶. When it comes to endings, the option with the most votes were resolution endings (63,9%), while resonance (5,6%) was the least selected choice²⁸⁷.

The preferences regarding **perspective and narrative** are fairly flexible. When it comes to which perspective to play in, the most common option was no preferences (50,0%), followed by 1st person (41,7%) and then 3rd person (27,8%)²⁸⁸. The same is also visible when asked about who the narrator should embody, where the highest option was again no preferences (55,6%) – the same happened again when asked about the preferred narrator traits (top choice no preferences with 33,3%), while the other options were within the 17,0% - 22,0% range²⁸⁹. Experience-wise, Gardeners tend towards the representational (50,0%) over the presentational (16,7%) experience²⁹⁰.

Lastly, Gardener's **genre-related preferences** indicate that they have no strong inclinations about the inclusion of magic systems - the highest option being no preferences (44,4%)²⁹¹. They also don't have any preferences (50,0%) about the inclusion of religion, followed by an imaginary one (33,3%) over the other options²⁹².

²⁸⁴ Cf. *Ibd*, Pg. 23f

²⁸⁵ Cf. *Ibd*, Pg. 26

²⁸⁶ Cf. *Ibd*, Pg. 27f

²⁸⁷ Cf. *Ibd*, Pg. 29

²⁸⁸ Cf. *Ibd*, Pg. 31

²⁸⁹ Cf. *Ibd*, Pg. 32f

²⁹⁰ Cf. *Ibd*, Pg. 34

²⁹¹ Cf. *Ibd*, Pg. 42

²⁹² Cf. *Ibd*, Pg. 43

5.2.3. Slayer gamer types

Out of 475 participants, 52 (10,9%) had the Slayer as their primary gamer type. 15/52 of them didn't have a secondary type and 37/52 did – the exact distribution can be seen on table 10²⁹³.

Contrary to the previous two, Slayers desire an experience that highly resembles an interactive action movie – being the hero of the story comes first and everything else is secondary. Their story score (58,0%) is slightly above average, and the same applies to their fantasy score (62,0%)²⁹⁴. Their preferences for each narrative topic are the following:

The Slayers' **main character preferences** indicate that they tend to prefer their MC to also be the story's protagonist (57,7%), followed by no preferences (36,5%)²⁹⁵. A positive arc is preferred (51,9%) over the flat (30,8%) and negative one (15,4%)²⁹⁶. Their MC also doesn't need to share all their traits with them, just a few such as sexual orientation, gender and being human²⁹⁷ – also reflected by preferring the fixed background, customizable characters (59,6%) over the fixed player-characters (25,0%) and the other player-types²⁹⁸.

Their **preference for villains** shows that they strongly favour active types (73,1%) and, when asked about how they should be involved, there was a slight preference by sharing the hero's goals but clashing by methods (55,8%), followed by obstructing the MCs path because of a higher purpose (44,2%)²⁹⁹. Arc-wise there were no strong preferences, as the most selected choice was the no preference (42,3%) option, followed by negative arcs (40,4%) and flat ones (32,7%) – least favourite option being the positive one (17,3%)³⁰⁰. While Slayers enjoy sharing a few traits with their MCs, there are no preferences when it comes to villains³⁰¹.

The **setting preferences** show that they highly enjoy fantasy (76,9%) and sci-fi locations (73,1%). All the others are also preferable (ranging between 60,0% – 70,0%), while the least favourite ones were war battlefields or private buildings (30,0% – 40,0%)³⁰². There were

²⁹³ Cf. *Ibd*, Pg. 4

²⁹⁴ Cf. Yee, N., 2020

²⁹⁵ Cf. Sabarini, S., 2021d, Pg. 10

²⁹⁶ Cf. *Ibd*, Pg. 12

²⁹⁷ Cf. *Ibd*, Pg. 13

²⁹⁸ Cf. *Ibd*, Pg. 11

²⁹⁹ Cf. *Ibd*, Pg. 15f

³⁰⁰ Cf. *Ibd*, Pg. 17

³⁰¹ Cf. *Ibd*, Pg. 18

³⁰² Cf. *Ibd*, Pg. 20

also no strong preferences regarding time-periods – mainly because the highest option was choosing fantasy or sci-fi over real time-periods (32,7%)³⁰³.

The Slayer's **mood preferences** indicate a strong fondness of experiencing excitement (78,8%), followed by suspense (67,3%) and exploration (67,3%). The least favourite options were disgust (9,6%), anger (17,3%) and fear (21,2%)³⁰⁴.

In terms of **story structure**, no conflict option makes it above the 50,0% mark – the one with the highest score was character vs. character (48,1%), followed by character vs. society (42,3%)³⁰⁵. When it comes to story focus types, there's a slight preference towards event types (61,5%), then idea (44,2%) and lastly the character type (42,3%)³⁰⁶. There's also a tendency to prefer branching narratives (61,5%) over linear ones (50,0%)³⁰⁷. Slayers also prefer a resolution ending (67,3%) over resonance (3,8%)³⁰⁸.

They are also very flexible when it comes to **perspective and narrator preferences** – there aren't any strong preferences regarding which perspective they'd like to play in: highest choice being 1st person (46,2%), followed by 3rd person (42,3%) and no preferences (34,6%). The same applies on who the narrator embodies, as no option makes it above the 50,0% mark – the first option being no preferences (44,2%), followed by it being the MC (34,6%) and after that one of the side-characters (21,2%)³⁰⁹. When it comes to the narrator's behaviour, most options reside within the 20,0% - 30,0% range, indicating a lack of preferences – the only exception being the limited point of view narrator (38,5%)³¹⁰. When it comes to the experience, they'd pick the representational (55,8%) one over presentational (9,6%), while the rest have no preferences (34,6%)³¹¹.

Lastly for their **genre-related preferences**, most of them don't mind whether magic is included in the game and in which form (most selected choice 44,2% no preference)³¹². There's a split when it comes to the inclusion of religion – half having no preferences (48,1%), while the other half prefers an imaginary one to be included (48,1%)³¹³.

³⁰³ Cf. *Ibd*, Pg. 21f

³⁰⁴ Cf. *Ibd*, Pg. 23f

³⁰⁵ Cf. *Ibd*, Pg. 26

³⁰⁶ Cf. *Ibd*, Pg. 27

³⁰⁷ Cf. *Ibd*, Pg. 28

³⁰⁸ Cf. *Ibd*, Pg. 29

³⁰⁹ Cf. *Ibd*, Pg. 32

³¹⁰ Cf. *Ibd*, Pg. 33

³¹¹ Cf. *Ibd*, Pg. 34

³¹² Cf. *Ibd*, Pg. 42

³¹³ Cf. *Ibd*, Pg. 43

5.2.4. Skirmisher gamer types

Out of 475 participants, 24 (5,1%) had the Skirmisher as their primary gamer type. 09/24 of them didn't have a secondary one and 15/24 did – the exact distribution can be seen on table 10³¹⁴.

Skirmishers have high action- and social cluster scores (>60,0%) and enjoy fast-paced arena settings – especially when thinking, planning or 100,0% completion is not required. Amongst all that, their story motivation score is fairly low (12,0%)³¹⁵. Their preferences for each narrative topic are the following:

In terms of **main character preferences**, the Skirmishers have a slight tendency to prefer an MC who's also the story's protagonist (50,0%), a little bit more than having no preferences (41,7%)³¹⁶. They don't feel strongly about any of the player character types, as the most selected choice was no preferences (37,5%)³¹⁷ – even though they'd like to share a few traits with the MC such as gender, sexual orientation, and being human³¹⁸. For arcs there's a tendency towards positive ones (50,0%), followed by no preferences (29,2%)³¹⁹.

Their **villain preferences** show that they'd prefer active villains (66,7%) over passive ones (4,2%) – and when it comes to how they should act, there's a slight tendency towards wanting the villains to share the hero's goals but clashing by methods (50,0%), while the other options have scores below 33,0%³²⁰. When it comes to villain arcs, at least half of them have no preferences (50,0%), followed by negative arcs (37,5%), while a small portion also didn't want any villains to begin with (8,3%)³²¹. Sharing traits with the villains is also not necessary and rather flexible³²².

Their **setting preferences** indicate that they favour other planets (62,5%) the most, followed by fantasy and sci-fi locations (both 58,3%). Aside from deserted locations and cities, all the other options reach below 50,0%³²³. They don't have a strong preference for time-periods

³¹⁴ Cf. *Ibd*, Pg. 4

³¹⁵ Cf. Yee, N., 2020

³¹⁶ Cf. Sabarini, S., 2021d, Pg. 10

³¹⁷ Cf. *Ibd*, Pg. 11

³¹⁸ Cf. *Ibd*, Pg. 13

³¹⁹ Cf. *Ibd*, Pg. 12

³²⁰ Cf. *Ibd*, Pg. 15f

³²¹ Cf. *Ibd*, Pg. 17

³²² Cf. *Ibd*, Pg. 18

³²³ Cf. *Ibd*, Pg. 20

either, as no option reaches above the 50,0% mark – the highest options being contemporary periods and no preferences (both 33,3%)³²⁴.

When it comes to **mood preferences**, excitement reaches the highest preference (100,0%), followed by tension (83,8%), exploration (79,2%), suspense (66,7%) and fun (66,7%). Anger is the least favoured option (13%)³²⁵.

In terms of **story structures**, there's a preference towards the character vs. character (58,3%) conflict type, while the character vs. themselves (16,7%) option is the least favourite one³²⁶. Their inclinations towards story focus types aren't too strong – the option with the highest score being the milieu type (45,8%), followed by event (37,5%) and preferring the idea type (20,8%) the least³²⁷. Preferences regarding narrative structures are also fairly weak, as the top option is branching narratives (41,7%), followed by open ones (37,5%) and lastly linear types (29,2%)³²⁸. Resolution endings (62,5%) are more preferred than resonance endings (12,5%)³²⁹.

When it comes to the Skirmishers **perspective and narrator preferences**, the results do show that they'd strongly prefer playing games in 1st person (66,7%) than 3rd person (33,3%)³³⁰. They don't mind too much who the narrator embodies (50,0%) but show slight hints that they would also prefer a game without one, too (25,0%)³³¹. That is also reflected when asking how the narrator should behave – none of the options reaching the 50,0% mark and rather residing below 29,0%³³². Experience-wise, they are also split between having no preferences (50,0%) or choosing the representational (50,0%) type.³³³

Skirmisher's **genre-related** preferences indicate a slight inclination that, if magic is involved, it should be in the form of a hard magic system (50,0%), followed by the hard system version in a sci-fi setting (37,5%)³³⁴. When it comes to the inclusion of religion, the option with the most votes are no preferences (50,0%), followed by an imaginary one (37,5%)³³⁵.

³²⁴ Cf. *Ibd*, Pg. 21f

³²⁵ Cf. *Ibd*, Pg. 23f

³²⁶ Cf. *Ibd*, Pg. 26

³²⁷ Cf. *Ibd*, Pg. 27

³²⁸ Cf. *Ibd*, Pg. 28

³²⁹ Cf. *Ibd*, Pg. 29

³³⁰ Cf. *Ibd*, Pg. 31

³³¹ Cf. *Ibd*, Pg. 32

³³² Cf. *Ibd*, Pg. 33

³³³ Cf. *Ibd*, Pg. 34

³³⁴ Cf. *Ibd*, Pg. 42

³³⁵ Cf. *Ibd*, Pg. 43

5.2.5. Gladiator gamer types

Out of 475 participants, 65 (13,7%) had the Gladiator as their primary gamer type. 36/65 of them didn't have a secondary one and 29/65 did – the exact distribution can be seen on table 10³³⁶.

Gladiators have demands for every game-aspect – which is why they have above-average scores (>70,0%) in almost all of the 12 motivational drives³³⁷. They want an epic experience in team arena settings, explosive- and challenging gameplay with strategic thinking, all set in a rich world to explore. Because of that, their story score is also above average (60,0%) and their preferences for each narrative topic are the following:

When it comes to an ideal **main character** for the Gladiators, the top choice was an MC who's also the story's protagonist (61,5%), followed by having no preferences (36,9%) about the topic³³⁸. When it comes to player-character types, the option that makes it above the 50,0% mark are the fixed background, customizable character (53,8%) option, followed by the customizable player-character type (32,3%)³³⁹. That is also mirrored by wanting to share a few traits with the MC such as their sexual orientation, gender and being human too³⁴⁰. When it comes to arcs, they prefer positive ones (67,7%), followed by the second-choice flat arcs, only reaching 29,2%³⁴¹.

The Gladiator's **villain preferences** indicate a stronger liking towards an active type (75,4%)³⁴² – but when it comes to how they should be involved in the story, the option with the highest choice is by sharing the hero's goals but clashing through different methods (56,9%), followed by obstructing it for a higher purpose (43,1%). There are also hints that they'd also like their villains to be purely evil as well (33,8%)³⁴³. When it comes to arcs, the only option that makes it above the 50,0% mark are the negative types (55,4%), followed by no preferences (35,4%) and positive arcs (30,8%) – flat ones (15,4%) being the least selected choice, hinting towards liking dynamic villains, who should change in any direction and not

³³⁶ Cf. *Ibd*, Pg. 4

³³⁷ Cf. Yee, N., 2020

³³⁸ Cf. Sabarini, S., 2021d, Pg. 10

³³⁹ Cf. *Ibd*, Pg. 11

³⁴⁰ Cf. *Ibd*, Pg. 13

³⁴¹ Cf. *Ibd*, Pg. 12

³⁴² Cf. *Ibd*, Pg. 16

³⁴³ Cf. *Ibd*, Pg. 15

remain the same throughout the entire story³⁴⁴. There are no preferences whether traits should be shared with the villain or not³⁴⁵.

When it comes to their **setting preferences**, their favourite options are fantasy locations (83,1%), sci-fi locations (81,5%) and other planets (80,0%), while all the other options also make it above the 60,0% mark. Their least favourite spot seems to be the option where the story is limited to a private building (33,8%)³⁴⁶. Their preferences towards time periods are weaker, as no option makes it above the 50,0% mark – the highest ones being the contemporary periods (38,5%), followed by World War II (35,4%) and the classic era (27,7%)³⁴⁷.

When it comes to **moods**, they enjoy a variety of emotions, such as excitement (92,3%), suspense (78,5%), exploration (78,5%), fun and mystery (73,8%), as well as sadness (61,5%) and shock (63,0%). Disgust (18,5%) was the least favourite choice³⁴⁸.

In terms of **story structure**, the conflict type with the most votes were the character vs. character (61,5%) option, while character vs. nature (23,1%) was the least favourite one³⁴⁹. In terms of story focus options, the first choice was event types (61,5%), while the remaining options were within the 40,0% - 45,0% range³⁵⁰. Gladiators highly prefer branching narratives (70,8%), compared to open ones (46,2%) and linear types (33,8%)³⁵¹. When it comes to endings, they strongly prefer the resolution endings (67,7%), with only a small portion having no preferences (20,0%)³⁵².

When it comes to **perspective and narrators**, Gladiators show a preference towards playing games in 1st person (60,0%) a little bit more than 3rd person (56,9%)³⁵³. When it comes to narrators, no option makes it above the 50,0% mark – the choices with the most votes being both no preferences (36,9%) or that the narrator should be the MC (36,9%)³⁵⁴. The same is visible when asked about how the narrator should behave, where the preferences were weak as well – top choice being the limited point of view narrator (40,0%), second being the

³⁴⁴ Cf. *Ibd*, Pg. 17

³⁴⁵ Cf. *Ibd*, Pg. 18

³⁴⁶ Cf. *Ibd*, Pg. 20

³⁴⁷ Cf. *Ibd*, Pg. 21f

³⁴⁸ Cf. *Ibd*, Pg. 23f

³⁴⁹ Cf. *Ibd*, Pg. 26

³⁵⁰ Cf. *Ibd*, Pg. 27

³⁵¹ Cf. *Ibd*, Pg. 28

³⁵² Cf. *Ibd*, Pg. 29

³⁵³ Cf. *Ibd*, Pg. 31

³⁵⁴ Cf. *Ibd*, Pg. 32

unreliable one (38,5%), while all the other options are below the 26,0% mark³⁵⁵. There's a preference towards the representational experience (52,3%), compared to the presentational one (20,0%)³⁵⁶.

Lastly, their **genre-related preferences** indicate that if magic is included, they'd slightly tend towards a hard magic system (49,2%), which is also visible when it comes to the sci-fi context (sci-fi hard systems 44,6%)³⁵⁷. When it comes to the inclusion of religion, they'd strongly prefer an imaginary religion (63,1%) over a real one (7,7%)³⁵⁸.

5.2.6. Bounty Hunter gamer types

Out of 475 participants, 82 (17,3%) had the Bounty Hunter as their primary gamer type. 35/82 of them didn't have an additional secondary one and 47/82 did – the exact distribution can be seen on table 10³⁵⁹.

Bounty Hunters want a world they can make their own through customization and exploration – when it comes to characters, they deem it important to watch them grow via power progressions until they become the strongest entity in the game's context. Because of that, their story score (63,0%) is above-average compared to their other motivation scores³⁶⁰. Their preferences for each narrative topic are the following:

In terms of **main characters**, Bounty Hunters do prefer MCs who are also the game's protagonist (62,2%), followed by having no preferences (34,1%)³⁶¹. There's also a strong liking towards the fixed background, customizable character (57,3%), while ciphers are their least favourite ones (12,2%)³⁶². They slightly prefer positive arcs (56,1%), while the negative or flat option score low (both 18,3%)³⁶³. Not all traits need to be shared between them and their MC, but elements such as gender and sexual orientation would be preferable³⁶⁴.

The Bounty Hunters' **villain preferences** indicate that they strongly favour an active type (72,0%)³⁶⁵. When it comes to how they make themselves present, the option with the most

³⁵⁵ Cf. Ibid, Pg. 33

³⁵⁶ Cf. Ibid, Pg. 34

³⁵⁷ Cf. Ibid, Pg. 42

³⁵⁸ Cf. Ibid, Pg. 43

³⁵⁹ Cf. Ibid, Pg. 4

³⁶⁰ Cf. Yee, N., 2020

³⁶¹ Cf. Sabarini, S., 2021d, Pg. 10

³⁶² Cf. Ibid, Pg. 11

³⁶³ Cf. Ibid, Pg. 12

³⁶⁴ Cf. Ibid, Pg. 13

³⁶⁵ Cf. Ibid, Pg. 16

votes are by sharing the hero's goals and clashing through methods (57,3%), followed by obstructing the MCs path for a higher purpose (47,6%). There are hints that Bounty Hunters also enjoy a primarily evil villain (30,5%)³⁶⁶. When it comes to the villains' arcs though, the option with the most votes are no preferences (50,0%), though negative arcs (41,5%) have more votes than the other two options³⁶⁷. Traits don't need to be shared, though Bounty Hunters would like the villain's age to be a little different than theirs³⁶⁸.

Setting-wise, they strongly prefer fantasy locations (79,3%), as well as sci-fi/other planets (both 68,3%) and deserted locations (65,9%). War battlefields had the fewest votes (25,6%)³⁶⁹. There are no strong preferences when it comes to time-periods, as the highest option is not enjoying real-life based time periods due to preferring fantasy and sci-fi more (32,9%). All the other options were within the 10,0% – 25,0% range³⁷⁰.

In terms of **mood preferences**, excitement had the highest score (82,9%), followed by exploration (76,8%) and mystery (65,9%). Disgust was the lowest one (14,6%)³⁷¹.

Their **story structure preferences** show that they don't have strong opinions when it comes to conflict types – the highest score being the character vs. character (52,4%) option, while characters vs. nature (20,7%) was the least favourite one³⁷². When it comes to story-focus preferences, the only option which made it to the 50,0% mark was the event type option (50,0%) – the character type (46,3%) came after that, while the idea and milieu option were the least selected ones (37,8%)³⁷³. They do favour branching narratives (68,3%) over linear ones (36,6%) and open narrative types (31,7%)³⁷⁴. There's also a tendency to prefer resolution (56,1%) over resonance (13,4%) endings³⁷⁵.

When it comes to their **perspective and narrator preferences**, there's a slight tendency to pick 1st person (51,2%) over 3rd person (46,3%)³⁷⁶. When it comes to who the narrator should embody, the top choice was no preferences (53,7%) and when it came to how the narrator should behave, most options were only within the 28,0% – 32,0% range, showcasing weak

³⁶⁶ Cf. *Ibd*, Pg. 15

³⁶⁷ Cf. *Ibd*, Pg. 17

³⁶⁸ Cf. *Ibd*, Pg. 18

³⁶⁹ Cf. *Ibd*, Pg. 20

³⁷⁰ Cf. *Ibd*, Pg. 21f

³⁷¹ Cf. *Ibd*, Pg. 23f

³⁷² Cf. *Ibd*, Pg. 26

³⁷³ Cf. *Ibd*, Pg. 27

³⁷⁴ Cf. *Ibd*, Pg. 28

³⁷⁵ Cf. *Ibd*, Pg. 29

³⁷⁶ Cf. *Ibd*, Pg. 31

opinions towards the topic³⁷⁷. They do show a tendency of favouring the representational (57,3%) type when it came to experiences³⁷⁸.

Their **genre-related preferences** show that there are no strong opinions about the inclusion of magic, as no options reach above the 50,0% mark. The highest scores were for hard magic systems (41,5%), followed by hard systems in sci-fi context (40,2%)³⁷⁹. When it came to the inclusion of religion, there was a slight tendency towards an imaginary one (52,4%), followed by having no preferences about it (43,9%)³⁸⁰.

5.2.7. Bard gamer types

Out of 475 participants, 90 (18,9%) had the Bard as their primary gamer type. 48/90 of them didn't have an additional secondary type, while 42/90 of them did – the exact distribution can be seen on table 10³⁸¹.

Bards are social players who want to be part of a community and play a role in a grand story with rich lore, discoveries, and customizations³⁸². Because of that, their story motivation score is above average (62,0%) and their preferences for each narrative topic are the following:

When it comes to their **main character preferences**, they are open about whether the MC should also be the story's protagonist or not (no preference 54,4%)³⁸³. When it comes to player-character types, they seem to prefer fixed background, customizable character types (51,1%) and the customizable player character (50,0%) almost equally³⁸⁴. Arc-wise they do prefer the positive type (63,3%) more than the other two options³⁸⁵. Sharing all the traits with the MC isn't required, though elements such as sexual orientation, gender, being human and age would be favourable³⁸⁶.

When it comes to their **villain preferences**, they do enjoy the active types (66,7%) instead of passive ones (2,2%) – there are tiny hints nevertheless, that they wouldn't mind a game without villains at all (8,9%)³⁸⁷. In terms of how their villains should cause conflicts, no

³⁷⁷ Cf. *Ibd*, Pg. 32f

³⁷⁸ Cf. *Ibd*, Pg. 34

³⁷⁹ Cf. *Ibd*, Pg. 42

³⁸⁰ Cf. *Ibd*, Pg. 43

³⁸¹ Cf. *Ibd*, Pg. 4

³⁸² Cf. Yee, N., 2020

³⁸³ Cf. Sabarini, S., 2021d, Pg. 10

³⁸⁴ Cf. *Ibd*, Pg. 11

³⁸⁵ Cf. *Ibd*, Pg. 12

³⁸⁶ Cf. *Ibd*, Pg. 13

³⁸⁷ Cf. *Ibd*, Pg. 16

option makes it above the 50,0% mark – instead, sharing the hero's goals but clashing through methods option (42,2%) is deemed equally as the option to causing trouble due to a higher purpose (42,2%)³⁸⁸. They also have no strong preferences about the villain arcs, as the top choice is no preferences (37,8%)³⁸⁹. Sharing traits with the villains is also not necessary³⁹⁰.

Their favourite **settings** would be fantasy (71,1%) locations, followed by other planets (66,7%) and sci-fi places (62,2%). All the other options range within the 50,0% - 60,0% range, with the exception of war battlefields (20,0%) and private buildings (37,8%)³⁹¹. When it comes to time periods, no strong preferences are visible – mainly because all of the options don't make it above 25,0%³⁹².

When it comes to their preferred **moods**, the top choices are explorative (85,6%), excitement (77,8%), followed by mystery (72,2%), suspense and joy (both 62,2%). Disgust was the least favourite option (6,7%)³⁹³.

Their **story structure preferences** indicate that they prefer the character vs. character (54,4%) conflict types, while character vs nature had the lowest scores (23,3%)³⁹⁴. No strong preferences are visible when asked about their favourite story focus types, as almost all of the options remained within the 30,0% - 38,0% range³⁹⁵. They do favour branching narratives (65,6%), over open types (35,6%) and linear ones (25,6%)³⁹⁶. The resolution ending option was also preferred (55,6%) over the resonance type (13,3%)³⁹⁷.

When it comes to their **perspective and narrator preferences**, they deem 1st person (48,9%) and 3rd person (47,8%) almost equally³⁹⁸. When it comes to who the narrator should embody, the top choice was no preferences (64,4%) and also small hints that maybe they'd prefer games without narrators (16,7%)³⁹⁹. When it comes to how narrators should behave, the top option was again no preferences (38,9%), as all the other options didn't make it above

³⁸⁸ Cf. Ibid, Pg. 15

³⁸⁹ Cf. Ibid, Pg. 17

³⁹⁰ Cf. Ibid, Pg. 18

³⁹¹ Cf. Ibid, Pg. 20

³⁹² Cf. Ibid, Pg. 21f

³⁹³ Cf. Ibid, Pg. 23f

³⁹⁴ Cf. Ibid, Pg. 26

³⁹⁵ Cf. Ibid, Pg. 27

³⁹⁶ Cf. Ibid, Pg. 28

³⁹⁷ Cf. Ibid, Pg. 29

³⁹⁸ Cf. Ibid, Pg. 31

³⁹⁹ Cf. Ibid, Pg. 32

27,0%⁴⁰⁰. The representational (48,9%) experience did have the highest votes, but there was also a good portion that had no preferences (37,8%)⁴⁰¹.

In terms of **genre-related** preferences, there were no strong opinions on how magic should be included – the highest option being hard magic (41,1%), closely followed by no preferences (40,0%)⁴⁰². When it comes to the inclusion of religion, an imaginary one (50,0%) is slightly preferred over having no preferences (43,3%) about it⁴⁰³.

5.2.8. Architect gamer types

Out of 475 participants, 76 (16,0%) had the Architects as their primary gamer type. 34/76 of them didn't have an additionally secondary one, while 42/76 did – the exact distribution can be seen on table 10⁴⁰⁴.

Architects enjoy planning and decision-making, combined with interesting settings and stories – ideally with a relaxing and serene atmosphere⁴⁰⁵. Their story motivation score is above average (59,0%) and their preferences for each narrative topic are the following:

Their **main character preferences** indicate that they slightly prefer MCs who are also the story's protagonist (51,3%), followed by having no preferences (46,1%)⁴⁰⁶. When it comes to player character types, the choice with the most votes were the fixed background, customizable character type (51,3%), compared to their second choice being the customizable player type (36,8%)⁴⁰⁷. Positive arcs (61,8%) were preferred over the other options and when it came to sharing the same traits, Architects would only like their sexual orientation to be shared – no preferences regarding other characteristics⁴⁰⁸.

Their **villain preferences** show that they strongly enjoy active (69,7%) types⁴⁰⁹ – but when it comes to how they cause trouble, Architects don't have strong preferences, as no option makes it above the 50,0% mark – the option with the most votes being sharing the hero's goals but clashing through methods (40,8%)⁴¹⁰. The same is visible when it comes to villain arc preferences, as the no preferences choice had the highest score (43,4%), while all the

⁴⁰⁰ Cf. *Ibd*, Pg. 33

⁴⁰¹ Cf. *Ibd*, Pg. 34

⁴⁰² Cf. *Ibd*, Pg. 42

⁴⁰³ Cf. *Ibd*, Pg. 43

⁴⁰⁴ Cf. *Ibd*, Pg. 4

⁴⁰⁵ Cf. Yee, N., 2020

⁴⁰⁶ Cf. Sabarini, S., 2021d, Pg. 10

⁴⁰⁷ Cf. *Ibd*, Pg. 11

⁴⁰⁸ Cf. *Ibd*, Pg. 12f

⁴⁰⁹ Cf. *Ibd*, Pg. 16

⁴¹⁰ Cf. *Ibd*, Pg. 15

other options were within the 20,0% – 25,0% range⁴¹¹. There are also no preferences towards which traits should be shared with the villain or not⁴¹².

Their ideal **settings** would be fantasy (78,9%), followed by sci-fi and village locations (both 63,2%). All the other options are within the 50,0% - 60,0% range, with the exception of war battlefields (15,8%) being the least favoured one⁴¹³. There are no strong preferences when it comes to time-periods, as none of the options make it above the 30,0% mark – only exceptions being the contemporary period (31,6%) and the late Middle Ages (30,3%) option⁴¹⁴.

Their favourite **moods** are exploration (84,2%) and excitement (69,7%) – the least favourite one being disgust (10,5%)⁴¹⁵.

When it comes to the Architects' **story structure preferences**, they rate most of the conflict types equally – first pick being character vs. society (48,7%), followed by character vs character (43,4%) and character vs. themselves (42,1%)⁴¹⁶. There are also no strong preferences towards story focus types, as the top scores are the character and event type option (both 46,1%), while the idea type (28,9%) was the least favourite one⁴¹⁷. In terms of endings, the resolution (61,8%) option was preferred over the resonance (14,5%) one⁴¹⁸. The same degree of preferences can be seen when it comes to the narrative structure – favouring branching narratives (64,5%) over the open ones (36,8%), last place being the linear types (28,9%)⁴¹⁹.

Their preferences for **perspectives and narrator** elements, indicate that they deem 1st person (43,4%) and 3rd person (43,4%) equally⁴²⁰. When it comes to who the narrator should embody, the highest choice was no preferences (46,1%), also hinting that they might not want a narrator to be included to begin with (23,7%)⁴²¹. There are also no strong preferences when it comes to the narrators' characteristics – top choice being no preference option

⁴¹¹ Cf. *Ibd*, Pg. 17

⁴¹² Cf. *Ibd*, Pg. 18

⁴¹³ Cf. *Ibd*, Pg. 20

⁴¹⁴ Cf. *Ibd*, Pg. 21f

⁴¹⁵ Cf. *Ibd*, Pg. 23f

⁴¹⁶ Cf. *Ibd*, Pg. 26

⁴¹⁷ Cf. *Ibd*, Pg. 27

⁴¹⁸ Cf. *Ibd*, Pg. 29

⁴¹⁹ Cf. *Ibd*, Pg. 28

⁴²⁰ Cf. *Ibd*, Pg. 31

⁴²¹ Cf. *Ibd*, Pg. 32

(38,2%), while all the other options are below 28,0%⁴²². Experience-wise, they'd prefer the representational (53,9%) over the presentational (9,2%) type⁴²³.

In terms of **genre-related preferences**, Architects show a tendency that if magic is included, they'd prefer hard magic systems (50,0%), followed by a hard system in the sci-fi context (38,2%)⁴²⁴. Should religion be included, an imaginary one is preferred (50,0%) over a real or non-existent one (both 10,5%)⁴²⁵.

5.2.9. Ninja gamer types

Out of 475 participants, 16 (3,4%) had the Ninja as their primary gamer type. 05/16 of them didn't have an additional secondary type and 11/16 did – the exact distribution can be seen on table 10⁴²⁶.

Ninjas enjoy difficult challenges that involve competition and decision-making within a fast-paced environment⁴²⁷. They primarily want to test their own skills against other players, which is why their story motivation scores (43,0%) tend to be a little below average. Their preferences for each narrative topic are the following:

The Ninjas' **main character preferences** indicate that they don't mind whether their MC is the story's protagonist or not, as the top voted option was no preferences (50,0%)⁴²⁸. When it comes to player character types, the only option that reached the 50,0% mark was the fixed background, customizable character (50,0%) choice⁴²⁹. The preferences for character arcs weren't particularly strong either, as their top choice only reached 43,8% for positive arcs, while flat ones (12,5%) were their least favourite choice⁴³⁰. The findings also indicate that Ninjas only want to share a few traits with their MC, such as sexual orientation and being human⁴³¹.

Their **villain preferences** indicate that they highly prefer active types (93,8%)⁴³². When it comes to how they should act in the game, the top voted option was by sharing the hero's goals but clashing via methods (50,0%), followed by obstructing the hero's goals for a higher

⁴²² Cf. Ibid, Pg. 33

⁴²³ Cf. Ibid, Pg. 34

⁴²⁴ Cf. Ibid, Pg. 42

⁴²⁵ Cf. Ibid, Pg. 43

⁴²⁶ Cf. Ibid, Pg. 4

⁴²⁷ Cf. Yee, N., 2020

⁴²⁸ Cf. Sabarini, S., 2021d, Pg. 10

⁴²⁹ Cf. Ibid, Pg. 11

⁴³⁰ Cf. Ibid, Pg. 12

⁴³¹ Cf. Ibid, Pg. 13

⁴³² Cf. Ibid, Pg. 16

purpose or just causing trouble because they are purely evil (37,5% for both)⁴³³. Ninjas tend towards negative arcs (56,3%) for their villains, while positive ones were their least favourite choice (12,5%)⁴³⁴. When it comes to sharing traits, Ninjas also prefer their villains to have a different gender and age than their own⁴³⁵.

When it comes to their **setting preferences**, only a few of the options make it above the 50,0%, such as fantasy locations (62,5%), sci-fi and other planet locations (both 56,3%). The least favourite choice was the story being limited to a private building (6,3%)⁴³⁶. Their time period preferences are also fairly weak, as most options don't make it above the 20,0% mark – the only exceptions being World War II (43,8%) and the revolutionary period (25,0%)⁴³⁷.

In terms of preferred **moods**, Ninjas seem to have the least preferences compared to the other primary gamer types - their highest choice being excitement (62,5%), while their least favourite ones were melancholy (12,5%), gloom (12,5%) and disgust (0,0%)⁴³⁸.

Their **story structure preferences** show that they strongly prefer character vs character (81,3%) conflict types, while the character vs. themselves (25,0%) type was their least favourite choice⁴³⁹. Their story focus types preferences aren't too strong, deeming the event and character type the same (both 56,3%), while the milieu type was their least favourite (13%)⁴⁴⁰. Ninjas tend towards branching narratives (50,0%) over linear ones (37,5%) and would prefer resolution endings (62,5%) over resonance (25,0%) ones⁴⁴¹.

Ninjas' **perspective and narrator preferences** indicate that they deem 3rd person (56,3%) and 1st person (50,0%) almost the same⁴⁴². There are no strong preferences regarding who the narrator should embody, as the highest score is no preferences (37,5%), with a hint that they might not want narrators to be included to begin with (25,0%)⁴⁴³. When it comes to how the narrator should behave, none of the options make it above the 50,0% either – their top option being an unreliable/biased narrator (37,5%), followed by a limited point of view

⁴³³ Cf. *Ibd*, Pg. 15

⁴³⁴ Cf. *Ibd*, Pg. 17

⁴³⁵ Cf. *Ibd*, Pg. 18

⁴³⁶ Cf. *Ibd*, Pg. 20

⁴³⁷ Cf. *Ibd*, Pg. 21f

⁴³⁸ Cf. *Ibd*, Pg. 23f

⁴³⁹ Cf. *Ibd*, Pg. 26

⁴⁴⁰ Cf. *Ibd*, Pg. 27

⁴⁴¹ Cf. *Ibd*, Pg. 28f

⁴⁴² Cf. *Ibd*, Pg. 31

⁴⁴³ Cf. *Ibd*, Pg. 32

type (31,3%) and no preferences (31,3%). They strongly prefer the representational experience (81,3%) over the presentational (6,3%) one⁴⁴⁴.

Their **genre-related preferences** show that when magic is included, it should be in the form of hard magic systems (62,5%), followed by a hard system (37,5%) in the sci-fi context⁴⁴⁵. In terms of religion inclusion, no options make it above the 50,0% mark – they do seem to deem an imaginary religion equally to having no religion at all (37,5%)⁴⁴⁶.

5.3. Conclusion and potential for further research

This concludes the interpretation of the findings and also provides the answer to the first research question: Which narrative elements of digital games are preferred by the nine primary Quantic Foundry gamer types?

After going through the narrative preferences of all the users in relation to their primary gamer types, it can be said that each group has different narrative preferences. Some have stronger preferences when it comes to their MCs, while others have stronger opinions when it comes to their villains – only the lack of time-period preferences were shared by them all.

The original hypothesis for the above-mentioned research question was that “the preferred narrative elements of digital games differ per primary gamer type”. In this case, the hypothesis has been proven correct.

While the narrative preferences differ per primary gamer types, it has been noticed, that not all questions were answered unanimously within each primary gamer type group. It was often the case that answers were split or scattered across the multiple choices – which hints towards the presence of secondary types and that they do affect the narrative preferences within a group of users sharing the same primary type. The research also showed that users with a secondary type are more common than those without one – which wasn't mentioned in any QF reports so far.

Due to the thesis's scope nevertheless, this assumption can't be examined or tested further – as it would require every unique combination of primary and secondary types to be treated as their own archetypes – leading to 81 variations.

However, data was gathered about it (e.g., narrative preferences differing between Architects, Architects/Bards, Architects/Gardeners, etc.) during the methodology chapter

⁴⁴⁴ Cf. Ibid, Pg. 34

⁴⁴⁵ Cf. Ibid, Pg. 42

⁴⁴⁶ Cf. Ibid, Pg. 43

and can be found in the appendix II – serving as a reference point for potential further research into narrative preference in relation to gamer's primary and secondary QF types. This transitions to answering the second research question: To what extent are the narrative preferences shared by users with the same primary Quantic Foundry gamer types?

Initially, the second hypothesis stated that “gamers sharing the same primary QF type, will have similar narrative preferences”. After analysing the findings, it can't be said for sure, as too many times questions weren't answered unanimously within groups sharing the same primary type. It would require testing the assumption that the presence of the secondary type has caused it and would require further research into the topic. Thus, the hypothesis has rather been proven incorrectly until demonstrated otherwise.

5.4. Impact on industry/society

The intel gathered during the thesis can be used as an overview or guideline for companies already using the QF model and the archetypes – they can use the narrative preferences as an idea on how to shape their game-related content if they're targeting specific QF gamer types.

As for the field of research, the thesis results can pose as another perspective to view player behaviour from – with a focus on narrative preferences. It should be noted that this thesis serves more as a steppingstone into the topic – and provides the opportunity for further research, as it was primarily an explorative study.

5.5. Lessons learned and limitations

Perhaps the results would have differed if the questions about narratives were posed in another manner – but due to no official game narrative preferences survey existing, one had to be created from scratch and was based on game narrative literature instead. Additionally, in hindsight, the narrative questions should have been posed as scale-based type questions instead of multiple-choice ones – mainly because it was often used by similar papers and because seeing percentages exceed 100,0% felt rather confusing at first while evaluating and interpreting the results.

The survey's strength was the number of participants, but its weakness was most likely its structure – as it couldn't be checked whether participants truly completed the QF test or just randomly selected a given gamer type at the start instead. The uneven number of gamer types are also a weakness (e.g., out of the 475 participants, 17,3% were Bounty Hunters and only

3,4% were Ninjas). Some participants also mentioned that some game examples used in the survey weren't known to them – hinting towards an age gap between the author and some of the users. However, a majority of participants did express that they enjoyed completing the survey – primarily because they've never been asked to share their game narrative preferences before. Most of them also mentioned that they never really thought about which story-related topics they prefer or not – which could explain why most of the times, “no preferences” were a common answer. Perhaps if narrative preferences become a more common topic in the game community, users will be more aware of their specific preferences.

An unexpected surprise during the methodology was also the ratio between participants with a secondary type and the ones without one – it wasn't stated on the QF website or reports that gamers with secondary types would be more common. In case it was never tested, now it has been.

The author does hope that this thesis will inspire more research into the field of game narrative, as there is a lot of potential to uncover. Any insights gained are valuable to help shape the best gaming experiences possible (especially during the pandemic).

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