Gender in Genshin Impact: A Corpus-Assisted Discourse Analysis

Nilüfer Erdur[a] *

[a] Independent Researcher, Turkey; https://orcid.org/0000-0002-1429-6725

Article Info	Abstract
	With the prevalence of video games and becoming a hobby of players of all ages, discussions about violence and sexist content in games have come to the fore. According to some theories, these contents, can cause negative changes in the behaviors of individuals by corrupting their perspectives on gender and violence. These ideologies can exist linguistically as well as visually. For this reason, it is essential to examine the gender representations that appear in video games that contain a lot of repetitive linguistic input. In this study, dialogues of Genshin Impact, an action RPG video game developed by a Chinese company known as HoYoVerse was examined through corpus-assisted approach to find out how each gender is represented. SketchEngine and AntConc applications were used for keywords, collocation and concordance lines analyses. The keyword analysis showed that women were underrepresented compared to men. Collocation and concordance lines analyses revealed that while males were represented mostly with verbs that denote bodily actions, women were almost equally represented with bodily and mental verbs. Adjectives indicating the psychological state of women were also found to be higher than men. Males were found to be the receivers of the violent acts while women were associated with supernatural powers, successful careers, and fame. Both genders were represented with familial roles, yet male roles were more related to patriarchal hierarchy while women roles imply a domestic bond. In general, the absence of sexualization and violent acts showed that there were better gender representations compared to previous games.
Research Article	

1. Introduction

Video games that entered people's lives 64 years ago with the creation of Tennis for Two (Higinbotham & Dvorak, 1958) are today the hobby of almost 3.24 million people (Noon, 2021). With the release of Colossal Cave Adventure (Crowther & Woods, 1977), narrative texts took their place in the games and challenged the players to spend more time with more complex and protracted games (Gavins, 2007). Since the emergence of a new type, called text adventures, games have made significant advances in storytelling, graphics, and game mechanics (Noon, 2021). Text adventures that can only be completed in

---

* Nilüfer Erdur. Independent Researcher, Turkey.
  e-mail adress: nilufererdur03@gmail.com

one sitting, and games such as Pong (Atari, 1972), where at most two people can play competitively using the same screen, have been replaced by "massive multiplayer online role-playing games" (MMORPG), where tens or even thousands of players play together with a simple internet connection and from different parts of the world (Harding-Rolls, 2006). In addition to narrative texts, games now include high fantasy narratives presented in an interactive format, dialogues voiced by professionals, and game characters drawn or portrayed by real people (Heritage, 2021).

For nearly 30 years, society viewed gamers as young, unemployed men who were thought to be inclined to violent acts due to their hobbies (Bosman, 2021) and academic fields ignored studying such frivolous pursuits until the beginning of the 90s (Ensslin, 2012). Today, with the emergence of the gaming industry in global markets (NewZoo, 2022) and becoming an indispensable part of people of all ages and genders (Clement, 2021), video games that present realistic experiences and game characters that indistinguishable from real persons (Nelson, 2014) raise many concerns among the scholars (Heritage, 2021).

Taking its source from Bandura's Observational Learning Theory (1977), the Cultivation Theory suggests that media has a corruptive influence on people (Gerbner et al., 2008). This theory suggests that media can corrupt individuals' perceptions of the boundaries between fictional and real worlds and direct them to misbehave in real-life settings. According to this view, due to their interactive and repetitive (presenting the same sound, picture, or language repeatedly) nature, video games may impose ideologies that are not appropriate (Ensslin, 2012) and corrupt people's moralities (Heritage, 2021). One of the concerns was mentioned earlier is gender representation. Visual and textual content analysis studies on video games and their paratexts (forums, magazines, advertisements, etc.) show that female game characters appear in games less than male characters (Beasley & Standley, 2002; Downs & Smith, 2009; Gestos et al., 2018; Sarkeesian & Petit, 2020), and when they appear, they are oversexualized with unrealistic body proportions and underwear-like costumes displaying their skins (Summers & Miller, 2014; Richards, 2016; Masso, 2019). When their roles in the games' stories were analyzed, females were found to be secondary characters shown as damsels in distress who eventually become a prize presented to a male character for his heroic deeds (Caldas-Coulthard & Moon, 2010; de Bruin-Molé, 2020; Ensslin, 2015, p. 85). On the other hand, male characters are represented by their tendency to violence, heroic deeds, and excessively masculine bodily features (Beasley & Standley, 2002; Collins, 2011; Kondrat, 2015; Heritage, 2020). Studies centered around the effects of video games show issues like women generally judging their physical appearances due to the unrealistic representations (Behm-Morawitz & Mastro 2009, p817), men becoming more tolerant towards acts of sexual harassment after consuming games with oversexualized characters, and both genders reporting misogynistic thoughts after spending too much time on games (Dill et al., p.1405-1406).

Although there are many studies on gender representation in video games in the literature, most are at the content level and reflect only surface structures (Machin & van Leeuwen, 2016; Heritage, 2021). A content analysis at a visual level provides valuable data on gender representation in video games, yet, understanding the deeper ideologies is only possible with studies at a lexical level (Macalister, 2011, p. 26). However, studies in which such textual analyzes are performed are very few. Furthermore, when the previous studies carried out from a textual perspective were considered, it was seen that examined games were all *one-shot games* (games usually discarded after being played once). Even though such games can repetitively present ideologies, the content in these games is limited to one-time gameplay and does not provide long-term exposure to the players. Thus, this study examines Genshin Impact (2020), an action role-playing game (RPG) that is currently popular among gamers due to being free and getting fresh content every 1.5 months (Clement, 2022a; 2022b; Tassi, 2021), in the light of corpus methods that Heritage (2021) discussed in his book. Compared to one-shot games, Genshin offers long-lasting, daily gameplay and has introduced new regions, quests, non-playable characters (NPCs), and playable characters to its players since fall 2020 with each patch. A textual study of this different structure of

Genshin Impact can provide more detailed information on gender representation. Additionally, examining gender representation in a game with such long gameplay can provide valuable data for future work on the long-term effects of video games on players.

2. Literature Review

2.1 Sex and Gender

Concepts of sex and gender were used interchangeably in the early 1900s (Haig, 2004). These two words began to mean different things when Money (1955) used the word "gender" while describing hermaphrodite individuals with ambiguous genitalia in the second half of the 20th century. After a while the word "sex" started to be used to refer innate differences namely genitals while "gender" is used for determined differences in individuals' social identities known as "female" and "male (Unger, 1979; Bing & Bergvall, 1996; Butler, 1990; Davis et al., 2014). Today, although some claim that sex is biological while gender is a social construct (Jackson, 2006; Eckert, 2014), and others view sex as a social construction just like gender (Cameron, 2005; Johnson & Repta, 2012) it seems impossible to make a clear distinction between these two notions (Lips, 2020).

2.2 Gender Roles

According to the evolutionist theories, in order to survive, humans have evolved different biological characteristics and assumed roles that overlap with these characteristics (Buss,2019). For example, to give birth to new and strong offsprings and prepare them for life, women assumed "feminine" domestic roles while men assumed violent "masculine" roles to fight with other males for the purpose of finding the best partner to maintain a long and healthy lineage (Buss, 1989; Eagly & Wood, 1999). These differences between gender roles generated social rules, and "acceptable" and "unacceptable" behaviors were assigned according to the genders of the individuals (Schimanoff, 2009; Berger & Krahé, 2013). According to social learning theories, children adopt the gender roles determined by their families, the cultural environments they are members of, and the media content they are exposed to (cartoons, books, video games etc.) at an early age by processing them (Wühr et al., 2017; Forni, 2019).

There are many opinions about the differences between gender roles. These views naturally also address the language use of individuals. For example, Jespersen (2006) argues that due to their narrow vocabulary reservoir, women use an underdeveloped language system compared to men. With the spread of feminist movements and their inclusion in language studies, it has been suggested that women and men indeed use different structures, but this is not because women have inadequate mental capacities but because of the sexist perspectives societies put on women (Lakoff, 1973) and educational systems that are affected by these sexist ideologies (Tannen, 2007). According to Butler's (1990) performativity theory, there is no connection between these linguistic differences with gender or sex. Language structures that are considered to be feminine or masculine are open to everyone's use, consciously or unconsciously. Whether the use of any construct by an individual (for example, a male individual's use of a linguistic feature that is considered feminine) is wrong and unacceptable depends on the social context (Connell, 2020).

2.3. Gender Representation and Video Games

As seen while defining evolutionist theories, men are represented by physical and sexual powers, while women are represented by domestic roles related to motherhood and being a wife. However, these representations create problems for both genders today. Woolf (1929) argues that in literature, until the Jane Austen period, women were generally identified by the presence of other men. They had secondary roles that could not go beyond being men's love interests or mothers. Today, although there are efforts to improve representation of women in both narrative works and in politics, this representation of "women without an identity" criticized by Woolf appears in all areas of life (Love & Baker, 2015; Heritage,

2021a). This sexist representation can be observed very clearly in both the development processes and gameplays of video games. Although recent studies have revealed that women are as interested in video games as men, and the ratios of men and women playing games are very close to each other, games are still defined as the occupation of men (Lucas & Sherry, 2004; Fox & Tang, 2014; Bosman, 2021).

Based on evolutionist theories, some scholars suggest that competitive and violent masculine behaviours affect gender representations in the context of video games. For example, some argue that competitive behaviours among men result in them perceiving the game development activity as a competitive act just like other economic activities. Therefore, they are more active in this industry (Oxford et al., 2010; Lange & Schwab, 2015). Likewise, playing video games is seen as competitive and masculine act (Hartmann et al., 2014). While playing video games, which is considered a masculine act, female players generally become the victims of male players' harassment and to avoid this sexist behaviour, they take male identities, especially in online games (Kuss et al., 2022).

The results of the male dominant game industry are also seen in the gender distribution of the game characters. In the content analyses made on video games, it was seen that the female characters were underrepresented (Dietz, 1998; Beasley & Standley, 2002; Dill & Thill, 2007; Williams et al., 2009; Downs & Smith, 2009). The female characters appearing in the game were portrayed from men's point of view. Even if the female characters were main characters with critical roles, they were presented with unrealistically curvy bodies and oversexualizing costumes that show their bodies to serve masculine gender norms (Downs & Smith, 2010; Jaggi, 2014; Summers & Miller, 2014; Richards 2016). According to Lynch et al. (2016), this oversexualization trend started with the release of Tomb Rider (1996) which presents the first female video game protagonist named Lara Croft and have increased in direct proportion to the increase in graphics quality in the games. When the roles of the game characters were examined, it was found that the female characters were usually princesses waiting to be rescued by men (Chirchiano & Tuselli, 2016), victims of violence (Dietz, 1998), altruistic individuals who would do anything for the main male character (Sun, 2020) and secondary characters who were depicted as femme fatales (Ensslin, 2015). Although women were represented incorrectly and insufficiently in the studies mentioned above, improvements in Lara Croft' design and the release of non-sexualized female protagonists like Horizon: Zero Dawn's (Guerilla Games, 2017) Aloy shows that there are efforts to create better representations (MacCallum-Stewart, 2014; Sarkeesian & Petit, 2020; Forni 2020).

2.4. Corpus Studies and Gender in Video Games

Corpus is a massive collection of real-world texts that can be stored in a computer and used for the analysis of specific language constructions (McEnery & Hardie, 2011; Baker, 2014b, pp.7-8). Unlike the analysis of sentences that made up by the armchair linguists, these full or representative collection of texts can provide many insights into the language use of a specific group of people namely communities like scholars, teachers or even gamers (Ensslin, 2012). Whether they are pre-defined texts like manuals and dialogs that added to the game either before (base game content) or after the release (added with updates) (Heritage, 2021a), or simultaneously constructed texts by gamers in a chat-box (Baker, 2008), video games texts have a specific language use of gamer community and a corpus study of these texts can help us to better understand the gender representation in video games and even gaming community (Heritage, 2021a).

An examination of the relevant literature showed that corpus studies were performed less than visual content analysis. For example, in studies conducted on newspapers, it has been seen that young women were represented with adjectives such as "curvy" by highlighting their body features, while older women were represented with adjectives such as "bitter" and "frail" implying that they lost their youth charm (Caldas-Coulthard & Moon, 2010; Moon, 2014). In Taylor's study, it was stated that girls were generally in the position of the object of the sentence, while the boys were in the subject's position (Taylor, 2013). Analysis of men's representation in the Corpus of Historical American English revealed that male

characters were generally defined by their muscular bodies, strength, and wealth (Baker, 2014a). Similar results can be seen in studies on video games communities. When video game magazines published from 1980 to 2011 were examined, it was found that the words used for women were either insults or physical depictions and there was a peak period in the use of these words, especially between the years 2001-2005 (Schmidt et al., 2020). In the corpus study of Heritage (2021b) on The Witcher (CD Project Red, 2007, 2011, 2015) series, it was seen that the ideal man was defined by having strong physical features. While young men were highlighted with their size and muscularity, older men were presented negatively with their weak bodies. Again, in Heritage's (2020) corpus-assisted study on 10 popular AAA video games (games released for high-end consoles), results similar to those of visual content analysis studies were obtained. Keyword analyses showed that women were underrepresented and the pronoun *they* only used in a third person plural form. The collocation and concordance line analyses highlighted the masculine powers, predisposition to violence, and dominant nature of men. Unlike other studies, the women in Heritage's study were highlighted with their high cognitive and mental abilities. However, there were still some usages about women's physical appearances. In short, although there are still problems about frequency and physical definitions, there have been developments in video games in terms of women's roles in recent years.

The present study aimed to find answer to the question below.

    1.   How genders are presented in Genshin Impact, an action RPG game?

3. Methodology

The present research employs a corpus-assisted discourse study (CADS) approach to find out how gender is represented in Genshin Impact. CADS approach is a data-driven approach that combines both quantitative (i.e., keywords and collocation analysis) and qualitative (concordance analysis) methods to examine the language patterns that are not easily visible to the naked eye (Partington et al., 2013). This approach to the language helps researchers to find out how ideologies are shaped in a body of text.

3.1. Corpora

New Model Corpus (NMC) and a specialized corpus were used in this study. NMC was used as a reference corpus and allowed the conduction of keyword analysis. It is a free and a general corpus of English with more than one hundred million words and subgroups from linguistics to technology and non-fiction to fiction genres including video games.

800,231 words specialized corpus was created from Genshin Impact's quest dialogues. All of the released quests from the game's first patch (1.0) until the end of 2.6 were collected from a fan website where the contents of the quests updated after each patch release and were checked to see if they were fit for purpose. One hundred eleven daily commissions and eighty-four main story, ninety-eight character, forty-one event and one hundred sixty-five world quests (side quests) that contain dialogues were added to the database. Junk words like dialogue markers were found and deleted by using Excel application.

3.2. Tools

Two corpus analysis tools were used. The first tool, Sketch Engine (Kilgarriff et al. 2004), allows academics and enthusiasts to upload their own corpus to the website and work on reference corpora like COCA and BNC. Its simple interface allows the analysis of keywords, word lists, collocations, and concordance lines in a single click. It offers an inexpensive and convenient service for both beginner and advanced corpus analysts.

The second tool, AntConc (Anthony, 2014), is a freeware corpus analysis application, and quite similar to Sketch Engine in terms of the services it offers. However, AntConc does not come with a reference corpus and the researcher must upload it manually.

3.3. Genshin Impact

There are many reasons for choosing Genshin Impact for this study. Although Genshin was originally designed as a mobile game, players can also experience it on PCs and consoles (PS4 and PS5), thus it appeals to a wide audience (HoYoverse, 2020). The second reason is that Genshin has been a popular game since the first day it was released, attracting millions of active players (Clement, 2022a) with a total of 85 million downloads (Clement, 2022b). The other criterion is Genshin's gambling mechanic, known as *gatcha* (Tassi, 2021). Although this mechanic is not required to progress in the game, players must earn game currency in order to purchase the characters and weapons they want. The easiest way to earn this currency is to do daily commissions. This mechanic causes players to be heavily exposed to game content as they play it daily. It is thought that this captivating atmosphere of the game may affect the players' views on gender representation more than other one-shot games. The last criterion in game selection is that Genshin has more characters than other games on the market (HoYoverse, 2022). The games Heritage (2020) examined in his study were all one-shot games. Compared with Genshin Impact, which brings new maps, NPCs, and playable characters with each patch update, they are limited in terms of the quests and character numbers. For this reason, the abundance and diversity of Genshin Impact's characters and quests make it a game worth examining.

3.4. Analysis

For this study, the researcher used both tools that has mentioned in the previous section for different purposes. First, the specialized corpus was uploaded to Sketch Engine's database to compare it with a larger corpus, NMC, and keyword analysis was conducted. Keyword analysis is a fundamental method in corpus analysis which can identify the salient features (overuse and rarity) of a specialized corpus by comparing it with a much larger and general corpus (Stockwell, 2002; p14). This analysis allowed researcher to find if a specific gendered word was salient in the specialized corpus.

After keyword analysis, concordance analysis was conducted. Concordance analysis can show how repetitive linguistic patterns occur in context and help researchers to comprehend in which way keywords or collocations appear in a corpus. (Vathanalaoha & Jeeradhanawin, 2015). Thus, the researcher used this method to make sure whether some specific keywords were used in a gendered meaning.

According to Adolphs (2006) collocational analysis of specific words can demonstrate how they co-occur with some words together more than others, consequently present the ideology embedded in the text. To see how gendered pronouns collocate with what words and which frequency, collocation analysis was conducted simultaneously with concordance analysis.

4. Results and Discussion

To find out how gender is represented in Genshin Impact, a keyword analysis comparing the specialized corpus and NMC was conducted and found 50 most used keywords in Genshin Impact.

Table 1.

Top 50 keywords

No	Item	Frequency	Score	No	Item	Frequency	Score
1	be	46148	46500,434	26	go	4180	4071,959
2	the	34192	33582,082	27	get	3916	3946,814

3	to	23923	24106,176	28	just	3885	3915,578
4	i	23386	23565,088	29	there	3849	3879,303
5	you	23447	23423,969	30	here	3822	3852,098
6	it	14155	14263,788	31	as	3940	3838,218
7	of	14091	14199,301	32	if	3806	3835,976
8	that	13670	13775,095	33	your	3731	3760,405
9	have	13005	12882,208	34	on	4121	3733,606
10	not	12645	12742,289	**35**	**they**	**3503**	**3530,668**
11	do	11130	11119,584	**36**	**he**	**3428**	**3455,097**
12	and	10810	10893,315	37	would	3617	3437,437
13	this	8226	8289,637	38	like	3258	3283,802
14	in	7933	7994,405	39	no	3157	3182,033
15	we	7818	7878,529	40	one	2929	2952,297
16	for	7300	7356,584	41	time	2921	2944,236
17	will	6068	6011,227	42	about	2875	2897,886
18	me	5494	5536,831	43	well	2998	2803,601
19	so	5232	5272,835	44	know	2766	2788,056
20	what	5088	5127,739	45	at	2789	2787,126
21	but	5348	4594,937	46	let	2754	2775,964
22	with	4540	4536,333	47	now	2716	2737,675
23	can	4331	4364,974	48	from	2631	2652,028
24	my	4257	4253,623	49	come	2641	2639,278
25	all	4213	4173,88	50	look	2592	2568,307

Keyword analysis revealed that gendered pronouns rarely appear on the list. The appearance of the pronoun *they* was further analysed to see whether it was used in a *non-binary* or a *third person plural* meaning.

> *The Abyss Order… **They** are presumably spreading their forces to halt our plans*
> *So the Tenryou Commission, **they** are deliberately deceiving the Shogun?*
> *Samurai who have left the Shogunate are… **they** are like the enemies we met before.*
> *The Harbingers? **They're** way above my level.*
> *The events of 500 years ago… **they** also took Makoto away from me for good.*

Even though gender is not a frequently observed notion in this corpus, it is still salient. The use of the pronoun *he* which denotes masculinity, can be seen in the top fifty keywords list while the pronoun *she*, which indicates femininity, is absent. The lack of any feminine pronouns or proper names shows that female characters are linguistically underrepresented in Genshin Impact.

4.1. Collocations of He and She

To further understand how genders are represented in Genshin Impact, collocation analysis along with concordance analysis were conducted to find out the ideologies that lies beneath the dialogues. The window for collocates was within five left and five right span and the minimum frequency of the collocates was set to five. 100 most used collocates were picked up according to their Mutual Intelligence (MI) scores. MI score compares each collocate according to their longest and closest distances to the target word and a score above 3 can be considered as significant (Baker, 2014b). Most used verbs, adjectives and nouns that denotes gender were presented below for each pronoun.

Table 2.

Verb collocates of *He*

Verbs Denoting Bodily/Physical Actions and Processes			Verbs Denoting Mental/Cognitive Actions and Processes		
Frequency	MI Score	Word	Frequency	MI Score	Word
5	8.23652	wakes	7	596.706	loves
5	7.23652	hides	10	5.56409	likes
10	6.77709	recover	11	5.30793	noticed
13	6.57063	joined	18	5.23902	mentioned
5	6.23652	crossed	44	5.23447	knows
7	6.19838	puts	18	5.23902	mentioned
9	6.13032	finds			
7	6.07809	dressed			
13	5.66083	disappeared			
7	5.59266	headed			
5	5.59266	ate			
8	5.48832	die			
5	5.48163	calls			
6	5.45516	drinking			
6	5.29010	showed			
5	5.28232	walking			
68	5.13787	left			
11	5.10723	works			

Collocation analysis supported by concordance analysis shows that male characters mostly represented with verbs that have bodily/physical meanings (%73,91), while mental and cognitive verbs were few (%26,08). Below there are examples from the corpus that shows the difference between bodily/physical verbs and mental/cognitive verbs in context.

> *leave him be for a couple of days.* **He'll recover** *on his own soon enough.*
> *He also said that* **he** *wouldn't let anyone* **die** *in vain*
> *Suikou pleaded guilty.* **He** *admitted to* **drinking** *at the tavern the night*
> *According to my investigation,* **he** *was* **headed** *southwest*
> *Right, why don't we ask Taisuke?* **He likes** *cats a lot.*
> *I've heard of any of the materials* **he mentioned***, though.*

Appearance of verbs like *hides, recover, disappeared* and *die* shows that male characters were not represented as the sources of brutal physical actions, rather, they were affected by them. They were also represented with basic actions like *eating, showing* and *telling things,* and *heading* somewhere. The only action that can be defined as negative was as *drinking,* and excessive alcohol consumption was a specific treat of male characters who felt guilty over something or were just reckless.

> *Suikou pleaded* **guilty**. **He** *admitted to drinking at the tavern the night*
> **He***'s been here* **drinking** *for hours. Look, here's his tab.*

Table 3.

Adjective collocates of *He*

Frequency	MI Score	Word
6	717.762	awake
6	641.209	sensitive
8	627.073	upset
5	591.459	stubborn
6	591.459	possessed
6	585.570	guilty
7	567.755	confident
11	556.667	alive
6	554.536	sad
5	528.232	injured

The representation of male characters affected by external forces which was presented in the previous section can also be seen in the results of the collocation analysis. Male characters were either victims of some events or they were in bad psychological states. Below, there are some concordance lines that show this representation clearly.

> *He's a **sensitive** kid and he cares a lot about your feelings.*
> *We both think that **he's** been **possessed** by an evil spirit*
> *I can't help but feel that **he's** still **alive** down here somewhere.*
> *He didn't have enough to eat.**He** won't be so **sad** once he's full, I thought.*

Male characters were also represented positively as self-confident, and negatively as guilty and impatient.
> *Teucer's a good kid when **he**'s not being so **stubborn**.*
> *Clear sign of a **guilty** conscience. **He** does a lot behind the scenes...*
> *Wow! **He** sure sounds **confident** in his cooking! I like that.*

Furthermore, collocation analysis also gave information about the groups, social roles and occupations with which the male characters were associated. The nouns collocate with the pronoun *He* can be seen below.

Table 4.

Noun collocates of *He*

Frequency	MI Score	Word
7	619.838	son
29	5.88993	uncle
18	567.512	dad
5	532.963	fighter

According to the results above, male characters were presented within familial roles. A further analysis of these adjectives revealed the context which they were used within.

> *His … name is Date, **son** of Eurydates. **He** said that he wanted to build a new generation…*
> *But the editors said that **he** is actually the second **son** of the Feiyun Commerce Guild…*
> *You can go ask my **dad**. **He** knows a lot of things.*
> ***Dad** said that **he** will hire a few people to protect us while we're traveling.*

Male characters were identified as fathers' sons that would remind their wealth or fame to the others. Dads on the other hand were strong, had wits and wealth. However, when the noun *uncle* analysed, it was found that it was used to address the elderly in a respectful manner. There was no mention of a familial role.

> *It's a new story told by **Uncle** Ramsay. **He** said he's been to many countries…*
> ***Uncle** He, **he**'s our senior here.*

Male characters were also represented as fighters which shows masculine physical powers.

> *Mr. Guy is a pretty mega awesome **fighter. He** beat up a whole camp of hilichurls…*
> *I wonder how strong of a **fighter he** is. I'd like to go a few rounds with him.*

Table 5.

Verb collocates of *She*

Verbs Denoting Bodily/Physical Actions and Processes			Verbs Denoting Mental/Cognitive Actions and Processes		
Frequency	MI Score	Word	Frequency	MI Score	Word
10	713.322	returns	5	641.702	wished
8	671.176	recovered	6	634.563	loved
7	629.672	headed	33	625.365	wants
5	608.260	stayed	5	603.369	remembered
36	566.964	gone	21	592.351	needs
47	530.905	left	20	578.071	thinks
12	528.475	leaving	9	572.249	needed
7	525.608	ran	11	553.892	meant
10	519.911	running	34	543.933	wanted
7	515.922	wrote	30	538.599	knows
6	509.509	playing	8	522.633	forgotten
9	508.814	acting			

Collocation analysis shows that women were represented almost equally by both bodily/physical (52,38%) and mental/cognitive verbs (47,61%). The lines below show this distinction in context.

> *Do you have any idea when **she recovered** from her illness?*
> *Has **she headed** off to work yet?*
> *I was quite stunned when **she ran** past me.*
> *Clearly, **she wished** for her people to be wise...*
> ***She loved** humanity very dearly.*
> *Maybe **she thinks** humans are still too young to handle it.*

Another interesting finding for the pronoun *she* was the use of the verb *playing* and *acting*. Concordance analysis of these verbs show that female characters were represented as unreliable and sneaky characters.

> *We caught a suspicious person… **She** was **acting** very furtively…*
> *Ningguang, has been **acting** strangely in the shadows, **she** wants the rocks created by Geo Vision holders…*
> ***She's acting** strange, huh?*
> *Is **she playing** dumb?*
> *I have heard of this device before. **She's playing** games with us...*

*Is **she playing** with us?*

Another frequently used verb was *need*. Concordance analysis made in the focus of this verb shows that the female characters needed the help of others to prove themselves or solve their problems.

*I want people to know all the good qualities **she** has. Eula desperately **needs** this kind of opportunity.*
***She** just **needs** a bit of guidance.*
*The red, burny girl has gone to the islands. **She needs** help.*
*Perhaps you are just the company **she needs**.*

Table 6.

Adjective collocates of *She*

Frequency	MI Score	Word
7	621.655	angry
7	572.557	mad
5	538.599	tired
19	537.473	alone
5	524.014	famous
17	509.878	happy
14	505.968	busy

Collocation analysis along with concordance analysis of adjectives shows that females were frequently represented with their psychological conditions. They would get angry quickly and do things that were not appropriate, or they would be happy out of simple things.

*Bet Lisa does some crazy things when **she** gets **mad**.*
*Without desserts and books to console herself with **she** was so **angry** she quite simply lost it.*
*Little Liu was so **happy**. **She** said she wanted to prepare a gift for her father.*
*Barbara is always **happy** when **she** sees such beautiful scenery.*

They were also hard workers, high ranking individuals (*Kamisato Ayaka*, 2022) and famous persons of the world they live in.

***She**'s in one piece and then some. **She**'s just **busy** with her research topic.*
*So Alice went to all these lengths because **she** was too **busy** to be with Klee?*
*...Xiangling, the famous chef. The spicy dishes **she** makes are **famous**...*
*Kamisato Ayaka, also known as the Shirasagi Himegimi... **Sh**e must be super-**famous** in Inazuma...*

They were also frequently described as being alone, yet not in a needy way. Female characters wanted to accomplish things by themselves, without the help of others.

***She** just wants to train **alone**.*
***She** went to Khaenri'ah **alone**, without telling me*
***She** plans to head up **alone** first, camp out for a bit, and observe the conditions*

Table 7.

Noun collocates of *She*

Nouns Related to Roles			Nouns Related to Professions		
Frequency	**MI Score**	**Word**	**Frequency**	**MI Score**	**Word**
25	636.769	girl	7	661.865	consciousness
5	613.322	guardian	5	635.562	astrology
14	593.415	sister	8	6.00394	company
20	568.319	child	5	565.518	shop
7	554.336	mother	5	558.303	gnosis
9	552.179	shrine maiden	13	553.773	eternity
8	519.239	granny	5	529.672	disaster
5	515.922	deity	5	513.322	magic
6	501.379	daughter	6	507.433	medicine

Two groups of results were obtained when noun collocates of *she* were examined. In the first group of collocations, it was seen that women were depicted as *mothers* and *daughters* in a familial context.

> *From the moment my **mother** married my father, **she** became the **mother** of the Kamisato household*
> *My **mother** loved him dearly. **She** passed soon after.*
> *Could I ask you to bring these toys to my **daughter**… **She** stays at Qingce Village.*
> *I'm always telling my **daughter** that if **she** gets the chance to learn from Her Excellency directly.*

However, *child, girl* and *granny* did not show any familial bond or role. It has been seen that the nouns *child* and *girl* were used by older characters when addressing young people, and *granny*, on the contrary, was used by young people as an honorific for old people.

> *Hahaha, don't mind Changsheng, **she's** a good **girl**, really.*
> *Klee needs to be a good **girl** and think about what **she** did...*
> *The old lady was **Granny** Oni. **She's** the one that took me in.*
> *How do you know **Granny** Ruoxin? **She** was a famous opera singer in her youth, too.*

In the use of *guardian*, *shrine maiden*, and *deity* nouns, it was seen that women had supernatural powers or had professions in this field.

> *Shogun is the most exalted and revered… **She** is a **deity** who reigns on high…*
> *Madame Ping is the **guardian** of the Cleansing Bell. **She** lives near Yujing Terrace.*
> *Lady Yae, the head **shrine maiden**, **she** has direct and close contact with the Almighty Shogun*

Similar findings were spotted in the other group of collocations. Females were associated with powers in the consciousness, mystical, and metaphysical realms.

> *She said that **she** used **magic** she secretly learned from the bake-danuki.*
> *As well-versed in **astrology** as **she** was, my master only knew astrology.*
> *… **she** placed her **consciousness** inside her sword, where she remains in a meditative state*

Another finding showing that women were associated with supernatural roles was the use of *Gnosis* proper noun. Gnosis is a key held by the gods in Genshin (*Gnosis*, 2021). The fact that this object is associated with the *she* pronoun shows the prominence of women with supernatural powers.

> *She no longer needs the power of the **Gnosis**. **She** tells me she has severed ties with Celestia.*
> ***She** just grabbed your **Gnosis** and left!*
> Female characters were also associated with commercial and medical professions.
> *Marjorie? Oh, right, **she** runs that souvenir **shop**, doesn't she?*
> *I asked Jilliana for some cough **medicine**, but **she** was out of ingredients.*

5. Discussion

This paper utilized the CADS approach in order to find how gender is represented in Genshin Impact. Keyword analysis which compared a specialized corpus created from the video game to a larger corpus, NMC, found that even though gendered words were not frequent, the pronoun *he* appeared on the keywords lists while the pronoun *she* did not make into the list. This result aligns with the previous research where it was found that females were underrepresented in video games (Dietz, 1998; Beasley & Standley, 2002; Dill & Thill, 2007; Williams et al., 2009; Downs & Smith, 2009). The use of the pronoun *they*, on the other hand, did not reveal any gendered use but was used in a third-person plural meaning just like Heritage (2020) found in his research; this shows that there was no representation of non-binary characters in Genshin Impact.

Even though women were found to be underrepresented in Genshin, this result does not reflect the ideology that lies deep beneath the game's language. Collocation and concordance analyses were conducted for each pronoun to determine how each gender was represented in the game. The analysis of verb collocates showed that males were represented most with bodily/physical verbs while mental/cognitive collocates were few. Similar findings can be seen in Heritage's (2020) study. However, concordance analysis of verbs like *hides, recover, die* and *disappeared* found that male characters were not actors of physically violent acts but receivers of them, unlike in other games where males were the source of actions like murder and rape (Beasley & Standley, 2002; Collins, 2011; Kondrat, 2015; Heritage, 2020).

Another interesting result was the verb collocates of the pronoun *she*. Both bodily/physical and mental/cognitive verbs used almost similar percentages while mentioning female characters. There were no traces of violent acts that denote masculine powers. This is a relatively new finding compared to Heritage's (2020) study where women were nearly always represented with mental/cognitive verbs. Unlike other games where women are associated with mental actions, women have a much more solid presence in Genshin.

When verbs that denote negative representations were examined, it was found that *drinking* was associated with males who felt guilty over something or had a reckless personality. In contrast, verbs described women as *playing* and *acting*, implying that some female characters are not reliable and sneaky. Although there are no studies with similar findings in the literature review, when acting and playing verbs are compared with the verb drinking within the context in which they occur, a negative representation of women can be seen. Another verb that collocated with the pronoun she was *need*. Similarly reported in previous studies (Caldas-Coulthard & Moon, 2010; de Bruin-Molé, 2020; Ensslin, 2015, p. 85) the frequent occurrence of this verb in the corpus has a negative connotation that women are subjects rather than actors who need help and exist with the presence of other characters.

Collocation analysis of each pronoun also revealed the adjectives defining the two genders. When the adjectives describing men were examined, *receivers of the violent acts*, a new finding that emerged in this

study can be seen here with the use of adjectives such as *sensitive, possessed*, and *sad*. When examined in terms of emotional states, it was seen that they were defined as *confident* as positive, *guilty* and *stubborn* as negative. On the other hand, women were described with either unstable psychological states or happy moods more than men. The emotional representation of women mentioned in Heritage's (2020) study is compatible with this result.

When the social roles that appear with both genders were examined, usages such as *son, dad* and *daughter*, and *mother*, which indicate familial ties in both genders, had emerged. However, this usage in men has a meaning that includes patriarchy and status. In women, this use expresses a domestic bond as stated in previous gender studies (Buss, 1989; Eagly & Wood, 1999) which reveals the gender role distinctions.

Looking at the other roles, it was seen that the *fighter* role appeared in men. Although it is an identity that implicates violent actions, the fighter is not a very common role in this corpus.

Various professions and occupations came to the fore when looking at other social roles that define women. Although the unreal women with supernatural powers and characters mentioned in previous studies (Bergstrom et al., 2012; Yee et al., 2011) are present in Genshin, there are also realistic characters such as chiefs, administrators, merchants, and doctors that famous for their professions and achievements.

In general, although women in Genshin Impact are linguistically overrepresented, emotionally prominent, and defined by some negative traits and traditional views, there are also positive changes in their representation compared to previous studies where they were victims of male violence (Chirchiano & Tuselli, 2016; Kuss et al., 2022). These positive changes can also be seen in depictions of social roles and concrete actions. While other games depict women with unrealistic body features (Summers & Miller, 2014; Richards, 2016; Masso, 2019 and sexual identities like a *succubus* (Heritage, 2021b), women in Genshin came to the fore with their supernatural powers and achievements in their professions. Additionally, although men's being victims of violence are related to the struggle for survival that can be seen in gender roles studies (Buss, 1989; Eagly & Wood, 1999), when compared to previous games, the dominant, abusive and violent male figure was not found in Genshin Impact.

6. Conclusion

This study used a corpus-assisted method to examine the gender representation in the action RPG video game Genshin Impact from a quantitative and a qualitative window. The corpus analysis showed a better, violence-free gender representation in both genders than in previous games. There was diversity in the representation of women in terms of roles, and no sexualization of females was found.

7. Limitations and Suggestions for Further Research

This study is limited in two ways. Although the data of all the released quests have been transferred to the corpus, Genshin Impact has more linguistic content due to its structure. In addition to the dialogues, there are also books, item descriptions and written stories of characters in the game. Furthermore, it is clear that more quests will be added to the game over time as it is still ongoing and is planned to continue for many years.

Since the Genshin Impact is an ongoing game and the development team receives active feedback from players and makes instant changes according to their recommendations, representations of gender may change over time. Thus, this study may shed light on how gender representation has changed over time for a similar study in the future. The findings of this study can also be combined with content analysis to find out how visual and linguistic representations differ in terms of gender representation.

This study may also be beneficial to educators. There are various studies on the integration of video games into the use of language acquisition and language teaching processes both in the classroom and outside the classroom (Osma-Ruiz, et al., 2015; Klimova & Kacet, 2017; Sudarmaji & Yusuf, 2021). In addition to the requirement that a video game used in education should not contain elements of violence (Schrier, 2015) having appropriate gender representations is also a criterion that language teachers should consider.

References

Adolphs, S. (2006). *Introducing Electronic Text Analysis: A Practical Guide for Language and Literary Studies* (1st ed.). Routledge. https://doi.org/10.4324/9780203087701

Anthony, L. (2014). *AntConc* (3.4.3) [Computer Software]. https://www.laurenceanthony.net/software/antconc/

Baker, P. (2008). *Sexed Texts: Language, Gender and Sexuality*. Equinox Publishing Limited.

Baker, P. (2014a). Two hundred years of the American man. In T. M. Milani (Ed.), *Language and Masculinities: Performances, Intersections, Dislocations* (pp. 54–72). Routledge. https://doi.org/10.4324/9781315759357

Baker, P. (2014b). *Using Corpora to Analyze Gender*. Bloomsbury Academic.

Bandura, A. (1977). *Social Learning Theory*. Prentice Hall.

Beasley, B., & Collins Standley, T. (2002). Shirts vs. Skins: Clothing as an Indicator of Gender Role Stereotyping in Video Games. *Mass Communication and Society*, *5*(3), 279–293. https://doi.org/10.1207/s15327825mcs0503_3

Behm-Morawitz, E., & Mastro, D. (2009). The Effects of the Sexualization of Female Video Game Characters on Gender Stereotyping and Female Self-Concept. *Sex Roles*, *61*(11–12), 808–823. https://doi.org/10.1007/s11199-009-9683-8

Berger, A., & Krahé, B. (2013). Negative attributes are gendered too: Conceptualizing and measuring positive and negative facets of sex-role identity. *European Journal of Social Psychology*, *43*(6), 516–531. https://doi.org/10.1002/ejsp.1970

Bergstorm, K., Jenson, J., & Castell, S. (2012, May). *What's "choice" got to do with it?: avatar selection differences between novice and expert players of World of Warcraft and Rift*. 97–104. https://doi.org/10.1145/2282338.2282360

Bing, J. M., & Bergvall, V. L. (1996). The question of questions: Beyond binary thinking. In V. L. Bergvall (Ed.), *Rethinking language and gender research: Theory and practice* (pp. 1–30). Routledge. https://doi.org/10.4324/9781315842745

Bosman, S. (2021, December 3). *The Way Consumers Interact with Games Is Changing; Nearly Half of Gamers Are Female; Over Half Are 30+*. Newzoo. https://newzoo.com/insights/articles/consumer-engagement-with-games-is-changing-gamer-segmentation-personas-gender-age-demographics

Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, *12*(1), 1–14. https://doi.org/10.1017/s0140525x00023992

Buss, D. M. (2019). *Evolutionary Psychology: The New Science of the Mind* (6th ed.). Routledge. https://doi.org/10.4324/9780429061417

Butler, J. (1990). Gender trouble, feminist theory, and psychoanalytic discourse. In L. Nicholson (Ed.), *Feminism/Postmodernism* (pp. 324–340). Routledge. https://doi.org/10.4324/9780203699386

Caldas-Coulthard, C. R., & Moon, R. (2010). 'Curvy, hunky, kinky': Using corpora as tools for critical analysis. *Discourse & Society*, *21*(2), 99–133. https://doi.org/10.1177/0957926509353843

Cameron, D. (2005). Language, Gender, and Sexuality: Current Issues and New Directions. *Applied Linguistics*, *26*(4), 482–502. https://doi.org/10.1093/applin/ami027

Chirchiano, E., & Tuselli, A. (2016). What kind of videogame? Gender representations in videogaming universe. *H-Ermes: Journal of Communication*, *2016*(7), 295–320. https://doi.org/10.1285/i22840753n7p295

Clement, J. (2021, September 7). *Number of video gamers worldwide 2021, by region*. Statista. https://www.statista.com/statistics/293304/number-video-gamers/

Clement, J. (2022a, January 12). *Global Genshin Impact mobile MAU 2020–2021*. Statista. https://www.statista.com/statistics/1251767/genshin-impact-mau/

Clement, J. (2022b, June 13). Global Genshin Impact app downloads 2020–2022. Statista. https://www.statista.com/statistics/1251724/genshin-impact-number-of-downloads-worldwide/

Collins, R. L. (2011). Content Analysis of Gender Roles in Media: Where Are We Now and Where Should We Go? *Sex Roles*, *64*(3–4), 290–298. https://doi.org/10.1007/s11199-010-9929-5

Colossal Cave Adventure [Video game]. (1977). Crowther, W., & Woods, D.

Connell, R. (2020). *Masculinities*. Taylor & Francis. https://doi.org/10.4324/9781003116479

Davis, J. L., Zimman, L., & Raclaw, J. (2014). Opposites attract. In J. L. Davis, L. Zimman, & J. Raclaw (Eds.), *Queer excursions: Retheorizing binaries in language, gender, and sexuality* (pp. 1–12). Oxford Scholarship Online. https://doi.org/10.1093/acprof:oso/9780199937295.001.0001

de Bruin-Molé, M. (2020). Women Heroes in Video Games. In K. Ross (Ed.), *The International Encyclopedia of Gender, Media, and Communication* (pp. 1–5). Wiley-Blackwell. https://doi.org/10.1002/9781119429128

Dietz, T. L. (1998). An examination of violence and gender role portrayals in video games: Implications for gender socialization and aggressive behavior. *Sex Roles*, *38*(5), 425–442. https://doi.org/10.1023/A:1018709905920

Dill, K. E., Brown, B. P., & Collins, M. A. (2008). Effects of exposure to sex-stereotyped video game characters on tolerance of sexual harassment. *Journal of Experimental Social Psychology*, *44*(5), 1402–1408. https://doi.org/10.1016/j.jesp.2008.06.002

Dill, K. E., & Thill, K. P. (2007). Video Game Characters and the Socialization of Gender Roles: Young People's Perceptions Mirror Sexist Media Depictions. *Sex Roles*, *57*(11), 851–864. https://doi.org/10.1007/s11199-007-9278-1

Downs, E., & Smith, S. L. (2009). Keeping Abreast of Hypersexuality: A Video Game Character Content Analysis. *Sex Roles*, *62*(11–12), 721–733. https://doi.org/10.1007/s11199-009-9637-1

Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American Psychologist*, *54*(6), 408–423. https://doi.org/10.1037/0003-066x.54.6.408

Eckert, P. (2014). The Problem with Binaries: Coding for Gender and Sexuality. *Language and Linguistics Compass*, *8*(11), 529–535. https://doi.org/10.1111/lnc3.12113

Ensslin, A. (2012). *The Language of Gaming* (2012th ed.). Palgrave Macmillan.

Ensslin, A. (2015). Discourse of games. In K. Tracy & C. Illie (Eds.), *The International Encyclopedia of Language and Social Interaction (ICAZ - Wiley Blackwell-ICA International Encyclopedias of Communication)* (1st ed., pp. 1–6). Wiley-Blackwell. https://doi.org/10.1002/9781118611463

Forni, D. (2020). Horizon Zero Dawn: The Educational Influence of Video Games in Counteracting Gender Stereotypes. *Transactions of the Digital Games Research Association*, *5*(1). https://doi.org/10.26503/todigra.v5i1.111

Fox, J., & Tang, W. Y. (2014). Sexism in online video games: The role of conformity to masculine norms and social dominance orientation. *Computers in Human Behavior*, *33*, 314–320. https://doi.org/10.1016/j.chb.2013.07.014

Gavins, J. (2007). *Text World Theory: An Introduction* (1st ed.). Edinburgh University Press. https://doi.org/10.3366/edinburgh/9780748622993.001.0001

Genshin Impact [Video game]. (2020). China: HoYoverse

Gerbner, G., Gross, L., Morgan, M., Signorielli, N., & Shanahan, J. (2008). Growing up with television: The cultivation perspective. In M. B. Oliver, A. A. Raney, & J. Bryant (Eds.), *Media Effects: Advances in Theory and Research (Routledge Communication Series)* (3rd ed., pp. 17–41). Routledge. https://doi.org/10.4324/9780203877111

Gestos, M., Smith-Merry, J., & Campbell, A. (2018). Representation of Women in Video Games: A Systematic Review of Literature in Consideration of Adult Female Wellbeing. *Cyberpsychology, Behavior, and Social Networking*, *21*(9), 535–541. https://doi.org/10.1089/cyber.2017.0376

Gnosis. (2022, July 16). In *Genshin Impact Wiki*. https://genshin-impact.fandom.com/wiki/Gnosis

Haig, D. (2004). The Inexorable Rise of Gender and the Decline of Sex: Social Change in Academic Titles, 1945–2001. *Archives of Sexual Behavior*, *33*(2), 87–96. https://doi.org/10.1023/b:aseb.0000014323.56281.0d

Harding-Rolls, P. (2007). Western World MMOG Market: 2006 review and forecasts to

2011. *Screendigest Management Report, Screen Digest, London, UK*.

Hartmann, T., Möller, I., & Krause, C. (2014). Factors underlying male and female use of violent video games. *New Media & Society*, *17*(11), 1777–1794. https://doi.org/10.1177/1461444814533067

Hayashi, M., & Hayek, M. (2013). Editors' Introduction: Onmyodo in Japanese History. *Japanese Journal of Religious Studies*. https://doi.org/10.18874/jjrs.40.1.2013.1-18

Heritage, F. (2020). Applying corpus linguistics to videogame data: Exploring the representation of gender in videogames at a lexical level. *Game Studies*, *20*(3). http://gamestudies.org/2003/articles/heritage_frazer

Heritage, F. (2021a). *Language, Gender and Videogames: Using Corpora to Analyse the Representation of Gender in Fantasy Videogames* (1st ed.). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-74398-7

Heritage, F. (2021b). *Maidens and Monsters: A corpus assisted critical discourse analysis of the representation of gender in The Witcher videogame series* (Doctoral Dissertation, Lancaster University).). https://doi.org/10.17635/lancaster/thesis/1333

Horizon zero dawn [Video game]. (2019). Amsterdam, Holland: Guerrilla Games

Hoyoverse. (2020). *Genshin Impact - Download Now*. Genshin Impact. https://genshin.hoyoverse.com/en/download?gclid=Cj0KCQjwof6WBhD4ARIsAOi65ag_u4q_08upFtSCSZTTd0c5Z5SoqczVvv4_Bp1I8lqOB07U9HCMxQEaAln9EALw_wcB

Hoyoverse. (2022). *Genshin Impact - Characters*. Genshin Impact. https://genshin.hoyoverse.com/en/character/liyue?char=0

Jackson, S. (2006). Heterosexuality, sexuality and gender re-thinking the intersections. In D. Richardson, J. McLaughlin, & M. Casey (Eds.), *Intersections between Feminist and Queer Theory (Genders and Sexualities in the Social Sciences)* (2006th ed., pp. 38–58). Palgrave Macmillan. https://doi.org/10.1057/9780230625266

Jaggi, R. (2014). Gender construction in video games: a discourse. *Mass Communicator: International Journal of Communication Studies*, *8*(1), 14. https://doi.org/10.5958/j.0973-967x.8.1.002

Jespersen, O. (2006). *Language: Its Nature, Development, and Origin (Otto Jespersen)* (1st ed.). Routledge. https://doi.org/10.4324/9780203715895

Johnson, J. L., & Repta, R. (2012). Sex and Gender: Beyond the Binaries. In J. L. Oliffe & L. Greaves (Eds.), *Designing and Conducting Gender, Sex, & Health Research* (pp. 17–37). SAGE Publications. https://doi.org/10.4135/9781452230610.n2

Kamisato Ayaka. (2022, July 21). In *Genshin Impact Wiki*. https://genshin-impact.fandom.com/wiki/Kamisato_Ayaka

Klimova, B., & Kacet, J. (2017). Efficacy of Computer Games on Language Learning. *TOJET: The Turkish Online Journal of Educational Technology*, *16*(4), 19–26. https://files.eric.ed.gov/fulltext/EJ1160637.pdf

Kondrat, X. (2015). Gender and video games: How is female gender generally represented in various genres of video games? *Journal of Comparative Research in Anthropology and Sociology*, *6*(1), 171–193. http://compaso.eu/wp-content/uploads/2015/08/Compaso2015-61-Kondrat.pdf

Kuss, D. J., Kristensen, A. M., Williams, A. J., & Lopez-Fernandez, O. (2022). To Be or Not to Be a Female Gamer: A Qualitative Exploration of Female Gamer Identity. *International Journal of Environmental Research and Public Health*, *19*(3), 1169. https://doi.org/10.3390/ijerph19031169

Lakoff, R. (1973). Language and Woman's Place. *Language in Society*, *2*(1), 45–80. https://www.jstor.org/stable/4166707

Lange, B. P., & Schwab, F. (2015, September). *Game on: The creation of video games as a cultural display* [Poster Session]. 9th conference of the Media Psychology division of the German Psychological Society, Tuebingen, Germany.

Lips, H. (2022). *Sex and Gender: An Introduction* (6th ed.). Waveland Press.

Love, R., & Baker, P. (2015). The hate that dare not speak its name? *Journal of Language Aggression and Conflict*, 57–86. https://doi.org/10.1075/jlac.3.1.03lov

Lucas, K., & Sherry, J. L. (2004). Sex Differences in Video Game Play: A Communication-Based Explanation. *Communication Research*, *31*(5), 499–523. https://doi.org/10.1177/0093650204267930

Lynch, T., Tompkins, J. E., van Driel, I. I., & Fritz, N. (2016). Sexy, Strong, and Secondary: A Content Analysis of Female Characters in Video Games across 31 Years. *Journal of Communication*, *66*(4), 564–584. https://doi.org/10.1111/jcom.12237

Macalister, J. (2011). Flower-girl and bugler-boy no more: changing gender representation in writing for children. *Corpora*, *6*(1), 25–44. https://doi.org/10.3366/cor.2011.0003

MacCallum-Stewart, E. (2014). "Take That, Bitches!" Refiguring Lara Croft in Feminist Game Narratives. *Game Studies*, *14*(2). http://gamestudies.org/1402/articles/maccallumstewart

Machin, D., & van Leeuwen, T. (2016). Sound, music and gender in mobile games. *Gender and Language*, *10*(3), 412–432. https://doi.org/10.1558/genl.v10i3.32039

Masso, I. C. (2019). *This is for the record: A case for video recording as part of a unified method of data collection for the academic study of PC games* (Doctoral Dissertation). ProQuest Dissertations Publishing. https://www.proquest.com/openview/20277e1df0abcdb3c7aa0a7c5a365c36/1?pq-origsite=gscholar&cbl=51922&diss=y

McEnery, T., & Hardie, A. (2011). *Corpus Linguistics: Method, Theory and Practice (Cambridge Textbooks in Linguistics)* (Annotated ed.). Cambridge University Press.

Money, J. (1955). Hermaphroditism, gender and precocity in hyperadrenocorticism:

Psychologic findings. *Bulletin of the Johns Hopkins Hospital*, *96*(6), 253-264.

Moon, R. (2014). From gorgeous to grumpy: adjectives, age and gender. *Gender and Language*, *8*(1), 5–41. https://doi.org/10.1558/genl.v8i1.5

Nelson, M. F. (2014). *Video Games and Misogyny: Understanding the Relationship* (Thesis). http://hdl.handle.net/20.500.13013/790

Newzoo. (2022, July 22). *Newzoo's Global Games Market Report | Games Market Sizing*. https://newzoo.com/products/reports/global-games-market-report

Noon, C. (2022, March 14). *How PC Gaming Has Evolved (A Brief History)*. WePC | Let's Build Your Dream Gaming PC. https://www.wepc.com/news/history-of-pc-gaming/

Osma Ruiz, V. J., Saenz Lechón, N., Gutiérrez Arriola, J. M., Argüelles Álvarez, I., Fraile Muñoz, R., & Marcano Ganzo, R. (2015, November). Learning English is fun! Increasing motivation through

video games. *8th International Conference of Education, Research and Innovation ICERI2015*, 6307–6316. https://oa.upm.es/44606/1/INVE_MEM_2015_241732.pdf

Oxford, J., Ponzi, D., & Geary, D. C. (2010). Hormonal responses differ when playing violent video games against an ingroup and outgroup. *Evolution and Human Behavior*, *31*(3), 201–209. https://doi.org/10.1016/j.evolhumbehav.2009.07.002

Pong [Video game]. (1972). Sunnyvale, California: Atari.

Partington, A., Duguid, A., & Taylor, C. (2013). *Patterns and Meanings in Discourse (Studies in Corpus Linguistics)* (UK ed.). John Benjamins Publishing Company. https://doi.org/10.1075/scl.55

Richards, S. (2016). *The Portrayal of Gender in Video Games: Skimpy Representation* (Doctoral Dissertation). https://aura.alfred.edu/bitstream/handle/10829/7247/Richards%2c%20Sarah%202016.pdf?sequence=1&isAllowed=y

Sarkeesian, A., & Petit, C. (2020, October 15). *More Video Games Featured Women This Year. Will It Last?* Wired. https://www.wired.com/story/women-video-games-representation-e3/

Schmidt, T., Engl, I., Herzog, J., & Judisch, L. (2020). Towards an Analysis of Gender in Video Game Culture: Exploring Gender-specific Vocabulary in Video Game Magazines. *Digital Humanities in the Nordic Countries 5th Conference (DHN 2020)*, 333–341. http://ceurws.org/Vol-2612/short20.pdf

Schrier, K. (2015). EPIC: a framework for using video games in ethics education. *Journal of Moral Education*, *44*(4), 393–424. https://doi.org/10.1080/03057240.2015.1095168

Shimanoff, S. B. (2009). Gender role theory. In S. W. Littlejohn & K. A. Foss (Eds.), *Encyclopedia of Communication Theory* (1st ed., pp. 433–436). SAGE Publications, Inc.

Stockwell, P. (2002). *Cognitive Poetics: A New Introduction* (1st ed.). Routledge.

Sudarmaji, I., & Yusuf, D. (2021). The Effect of Minecraft Video Game on Students' English Vocabulary Mastery. *JETAL: Journal of English Teaching & Applied Linguistic*, *3*(1), 30–38. https://doi.org/10.36655/jetal.v3i1.600

Summers, A., & Miller, M. K. (2014). From Damsels in Distress to Sexy Superheroes. *Feminist Media Studies*, *14*(6), 1028–1040. https://doi.org/10.1080/14680777.2014.882371

Sun, J. (2020). Gender in Chinese Video Games. In K. Ross (Ed.), *The International Encyclopedia of Gender, Media, and Communication (ICAZ - Wiley Blackwell-ICA International Encyclopedias of Communication)* (1st ed., pp. 1–5). Wiley-Blackwell.

Tannen, D. (2007). *ou Just Don't Understand: Women and Men in Conversation*. William Morrow Paperbacks.

Tassi, P. (2021, September 4). *You Think 'Genshin Impact' Is Pay-To-Win Gacha Anime Trash; You Are Wrong*. Forbes. https://www.forbes.com/sites/paultassi/2021/09/04/you-think-genshin-impact-is-pay-to-win-gacha-anime-trash-you-are-wrong/?sh=4a6619f5593a

Taylor, C. (2013). Searching for similarity using corpus-assisted discourse studies. *Corpora*, *8*(1), 81–113. https://doi.org/10.3366/cor.2013.0035

Tennis for Two [Video game]. (1958). Higinbotham, W., & Dvorak, R.

The Witcher [Video game]. (2007). Warsaw, Poland: CD Projekt Red.

The Witcher 2: Assassination of Kings [Video game]. (2011). Warsaw, Poland: CD Projekt Red.

The Witcher 3: Wild Hunt [Video game]. (2015). Warsaw, Poland: CD Projekt Red.

Tomb Raider [Video game]. (1996). London, UK: Eidos Interactive.

Unger, R. K. (1979). Toward a redefinition of sex and gender. *American Psychologist*, *34*(11), 1085–1094. https://doi.org/10.1037/0003-066x.34.11.1085

Vathanalaoha, K., & Jeeradhanawin, D. (2015). Gender and Lexical Representation in Enid Blyton's The Famous Five: A Corpus-based Study. *Journal of Studies in the English Language*, *10*. https://www.academia.edu/24363439/Gender_and_Lexical_Representation_in_Enid_Blytons_The_Famous_Five_A_Corpus_based_Study

Williams, D., Martins, N., Consalvo, M., & Ivory, J. D. (2009). The virtual census: representations of gender, race and age in video games. *New Media & Society*, *11*(5), 815–834. https://doi.org/10.1177/1461444809105354

Woolf, V. (1929). *A Room of One's Own* (First ed.). Hogarth Press.

Wühr, P., Lange, B. P., & Schwarz, S. (2017). Tears or Fears? Comparing Gender Stereotypes about Movie Preferences to Actual Preferences. *Frontiers in Psychology*, *8*. https://doi.org/10.3389/fpsyg.2017.00428

Yee, N., Ducheneaut, N., Yao, M., & Nelson, L. (2011, May). Do men heal more when in drag? *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. https://doi.org/10.1145/1978942.1979054