



Adolescent Media Use: Digital Gaming and Social Interaction

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Introduction

Digital gaming has quickly become one of the most popular forms of screen media used by teenagers (Rideout et al., 2022), and online games in particular have created new spaces for young people to socialize with their friends and peers. However, researchers have only recently begun exploring the social dynamics of gaming across different contexts and their implications on wellbeing (see Bowman et al., 2022, for a review). On one hand, some studies suggest a displacement effect, where engaging in social online video games corresponds with having smaller and less intimate offline circles (Kowert et al., 2014). On the other hand, research has highlighted the role of gaming in establishing and maintaining connections among adolescents, supporting their social skills and overall happiness (Kowert & Oldmeadow, 2015; Shoshani & Krauskopf, 2021).

One critical aspect that could explain these different findings is the multifaceted nature of gaming as a social activity. Gaming involves a wide array of roles (e.g., player, spectator), types of interactions (e.g., in-game vs. outside of gameplay, brief vs. extended communication), and potential outcomes (e.g., social support, impact on relationships). Each of these dimensions are also influenced by demographic characteristics of the player, such as age, gender, and cultural background, as well as other individual factors such as motivations and skills (Goncalves, 2023; Emmerich & Masuch, 2017). To fully understand the social impact of gaming, we should consider not only the quantity of time spent gaming but also the quality, context, and nature of these engagements.

In particular, this report focuses on how boys and girls may have different experiences with gaming, especially when it comes to relationships and social connection. Previous research has highlighted gender disparities in gaming experiences and perceptions, such as girls feeling less encouraged to play games than boys, that may contribute to different outcomes related to social wellbeing (Leonhardt & Overå, 2021). Based on established behavioral tendencies and social dynamics, we would expect boys to be more individualistic and competitive in their video game play (Waechter & Meschik, 2023), while girls may favor more collaborative gameplay (Dickey, 2006); these different styles of play may influence how teenagers form and maintain social connections through gaming experiences.

Research Questions

The main objective of this survey was to understand the different scenarios and contexts involved in adolescents' (ages 13-17) social video game play. This involved asking participants how often, where, and with whom they are playing different types of games, as well as their interactions and experiences within these different gaming environments:

1. What are the social contexts of gaming for teenagers?

- a. How often do teens engage in different types of video game play? (e.g., solo vs. social play, two-player vs. group play)
- b. Who are they typically playing with? (e.g., online/offline friends, family members, acquaintances, strangers)

2. How do teenagers communicate in different contexts of gaming?

- a. Do they engage more often in real-time or brief conversations?
- b. What are the primary platforms used for communication while gaming? (e.g., in-game chat vs. other tools/platforms)

3. How do teenagers generally experience different types of video game play?

- a. How do they perceive their interactions with other players? (i.e., collaborative vs. competitive, safe vs. unsafe, civil vs. toxic, positive vs. negative)

4. What are the relationships between different types of gaming, the nature of these gaming experiences, and adolescents' social functioning?

- a. How are different types of play associated with perceived loneliness?

5. What are the differences between boys' and girls' video game play and experiences?

- a. How do gender differences relate to gaming behaviors, social dynamics, communication styles, and overall experiences during gaming?
- b. How do the relationships between gaming behaviors and perceived loneliness vary between boys and girls?

How We Conducted This Survey

A nationwide sample of 1,468 adolescents (ages 13-17) were surveyed between November 3-10, 2023, using the Alchemer online research platform. Participants were first asked about their general gaming habits, with targeted follow-up questions based on how often they reported engaging in certain types of play; for example, participants were only asked about their experiences playing online with others if they reported doing so at least some of the time ("rarely" or more) during a typical week. Other questions, such as those around social wellbeing, were presented to all participants regardless of their previous responses.

A full description of the methods can be found at the end of this document.

Notes About the Findings

1. In this survey, we asked participants about several different ways to play video games with others. Throughout this report, we use the following categories/terms to describe the different contextual dimensions of gaming:

Location of Play

Remote: Playing online together with others who are not in the same room/space

Local: Playing games with at least one other person in the same room or space

Type of Play

Single-player: Playing alone, not interacting with others

Two-player: Playing with one other person; can be competitive and/or cooperative

Multiplayer: Playing with a group of people (two or more other players); can be competitive and/or cooperative

Relationship with Play Partner(s)

Friend(s)/family: Other players that the respondent already knows, e.g., friends, family members, acquaintances; this includes those previously met online

Stranger(s): People that the player does not already know, e.g., matched automatically within the game

2. When analyzing participants' self-reported average daily gaming time, we adopted the three-sigma rule for identifying outliers: responses falling more than three standard deviations from the means were considered atypically distant and were excluded from our analysis; less than 2% of responses were excluded using these criteria.
3. Although participants were given multiple options for reporting their gender identity (e.g., transgender, non-binary), the number of responses from each category only allowed us to make meaningful comparisons between participants who identified as either a "boy" or a "girl".
4. For responses on a 5-point frequency scale (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = almost always), we have condensed the top two responses ("often" and "almost always") into the category "frequently".



KEY FINDINGS

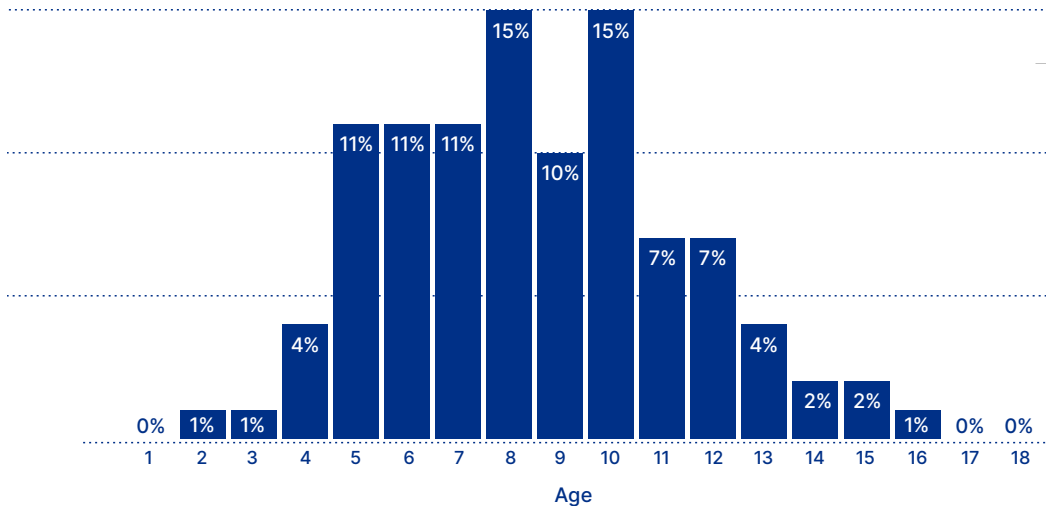


Key Findings

General Gaming Behavior

Nearly three-quarters (73%) of participants said they started gaming between 5 to 10 years old, compared to roughly one-quarter (22%) between 11 to 17 and 6% before the age of 5.

How old were you (roughly) when you started playing video games?

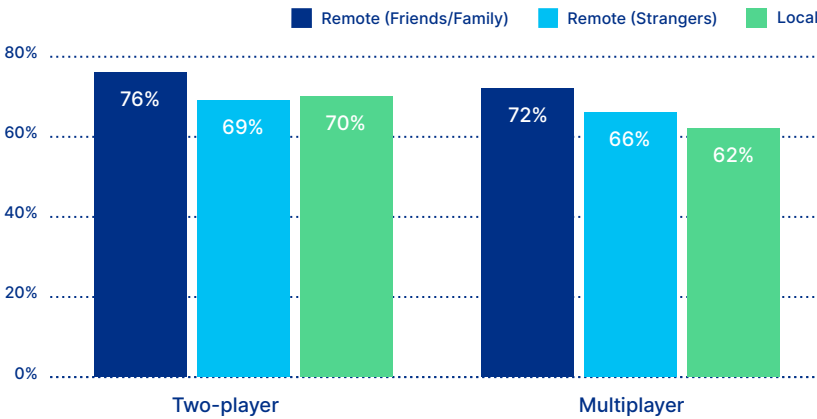


On an average school day, participants reported gaming for approximately 2 hours and 51 minutes on portable devices (e.g., smartphone, tablet, Nintendo Switch) and 2 hours and 12 minutes on non-portable devices (e.g., PC, laptop, PlayStation, Xbox). For non-school days, the average gaming time increases to roughly 4 hours and 6 minutes on portable devices and around 3 hours and 12 minutes on non-portable devices.

The overwhelming majority (93%) of teenagers in our sample said they played video games at least once in the past month. Among these respondents, 78% reported engaging in single-player gaming between “rarely” and “almost always” during a typical week, which was also significantly more frequent than any other type of play. Social gaming was also quite common, however, with 76% of teenagers reporting two-player gaming with a friend/family member during a typical week, followed by 69% with a stranger. Meanwhile, 72% of respondents reported multiplayer gaming with friends/family, as did 66% with strangers. When playing locally (i.e., in the same room), 70% of participants said they played video games with one other person, compared to 62% with a group.

KEY FINDINGS

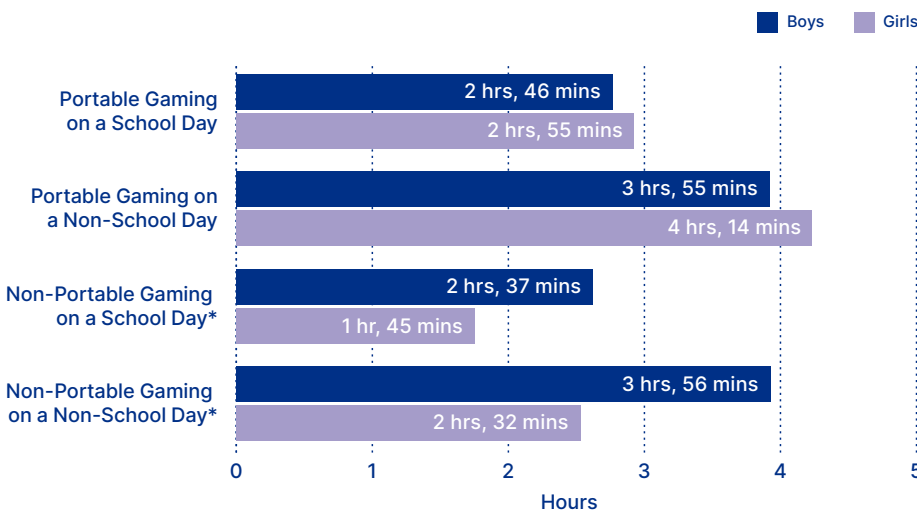
During a typical week, do you engage in any of the following types of play at all?



Gender Differences in Gaming Behavior

When looking more closely at how boys and girls spend their time gaming, **boys appeared to play more on non-portable devices like gaming consoles, whereas girls seemed to gravitate towards portable devices like smartphones.** On average, girls reported playing on portable gaming devices slightly more than boys, both on school days (2 hours and 55 minutes vs. 2 hours and 46 minutes) and non-school days (4 hours and 14 minutes vs. 3 hours and 55 minutes). On the other hand, boys spent significantly more time than girls playing on non-portable devices, both on school days (2 hours and 37 minutes vs. 1 hour and 45 minutes) and non-school days (3 hours and 56 minutes vs. 2 hours and 32 minutes).

On a typical day, how much time do you spend playing video games on the following types of devices?

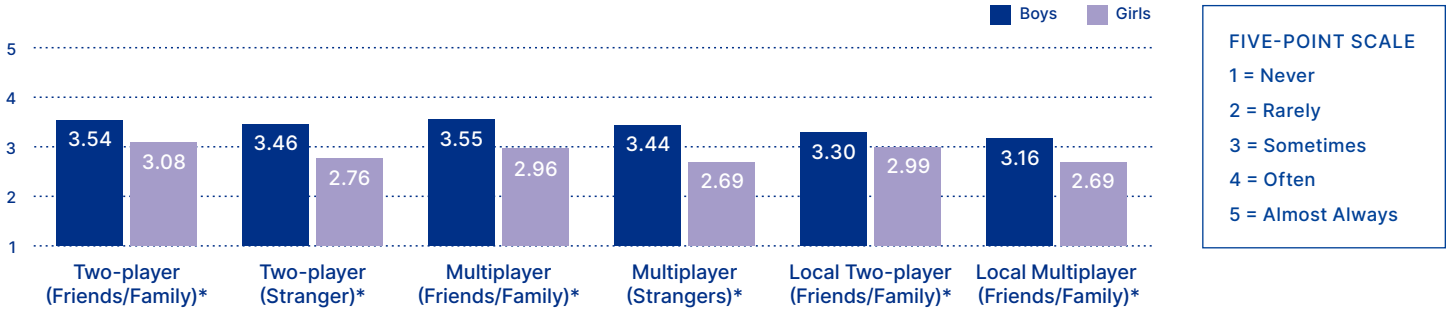


*When applicable, statistically significant differences are indicated with an asterisk.

KEY FINDINGS

Boys reported playing with others significantly more frequently than girls did, whether remotely or locally, in two-player or multiplayer, and with friends and family or strangers.

How often do you engage in the following types of play?*



*When applicable, statistically significant differences are indicated with an asterisk.

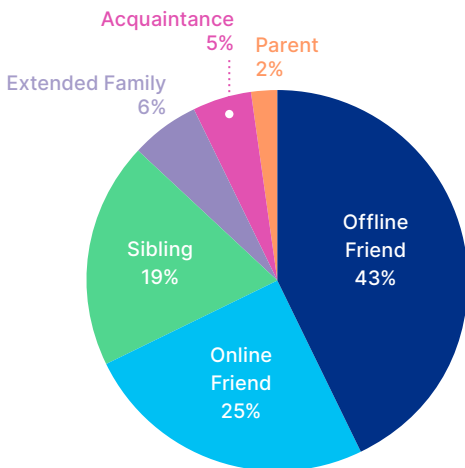
Social Interactions During Gaming

Remote Co-Play: Frequency and Partners

In two-player gaming sessions, 46% of participants reported playing frequently (i.e. often or almost always) with friends/family (i.e. someone they already knew), while 39% played with a stranger. During multiplayer gaming, 44% frequently play with friends/family, compared to 40% with strangers.

When asked who they typically play with during two-player gaming sessions with friends/family, nearly half (43%) of respondents reported that this person was a friend they know offline, followed by an online friend (25%), a sibling (19%), an extended family member (6%), an acquaintance (5%), and a parent (2%).

When you typically play online with **one person you know**, who are they?

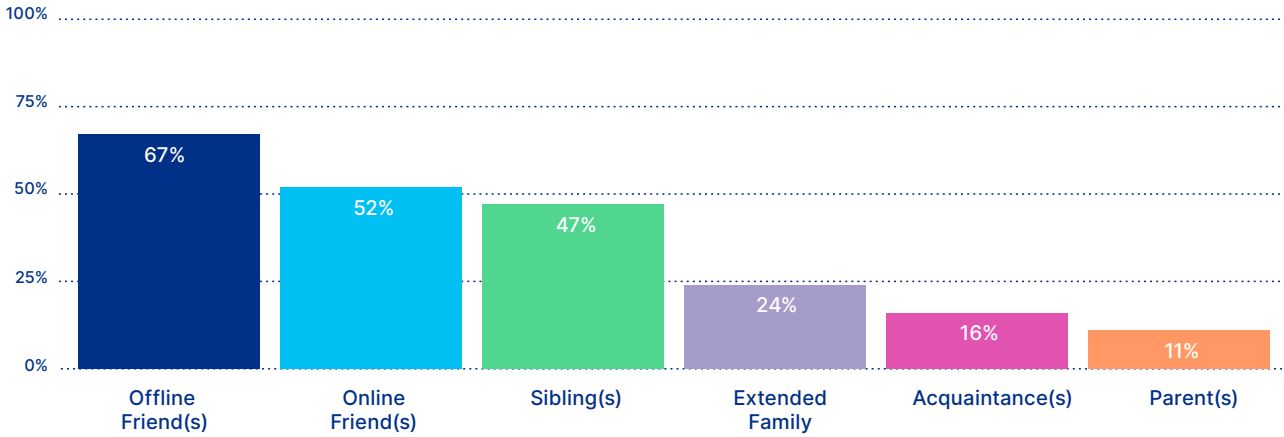


KEY FINDINGS

When gaming with a group during multiplayer sessions, more than half of respondents reported typically playing with friends they know offline (67%) and/or with online friends (52%), followed by siblings (47%), extended family members (24%), acquaintances (16%), and parents (11%).

When you typically play online with a group of people you know, who are they?

(check all that apply)

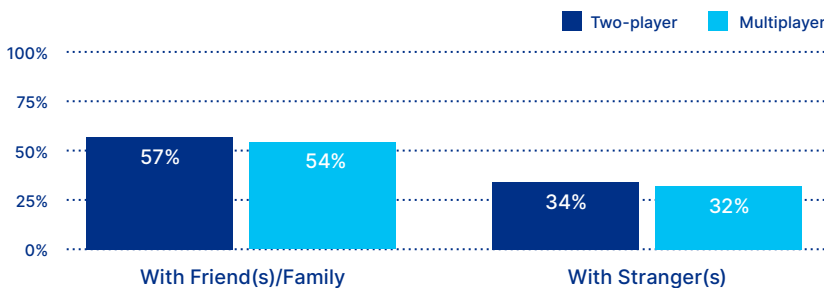


Remote Co-Play: Communication During Play

The majority of teenagers (57%) reported having real-time or extended conversations frequently (i.e. often or almost always) with friends/family during two-player gaming, but only around one-third (34%) said they did so when playing with a stranger. A similar pattern was found for multiplayer gaming, where more than half (54%) of teens had real-time or extended conversations frequently, compared to roughly one-third (32%) who had these types of conversations with strangers.

Do you frequently have an extended conversation and/or communicate in real-time?

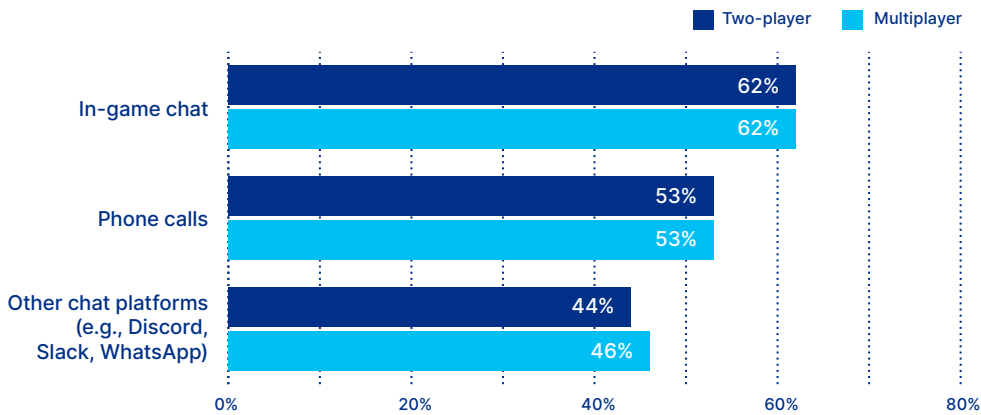
(percentage responding "often" or "almost always")



Most teens reported using in-game chat to communicate continuously during both two-player and multiplayer gaming (62% each), but many also used phone calls (53% each for two-player and multiplayer) and other chat platforms (44% for two-player, 46% for multiplayer).

KEY FINDINGS

When having an extended conversation and/or communicating in real-time during a game, which platform(s) do you use? (check all that apply)

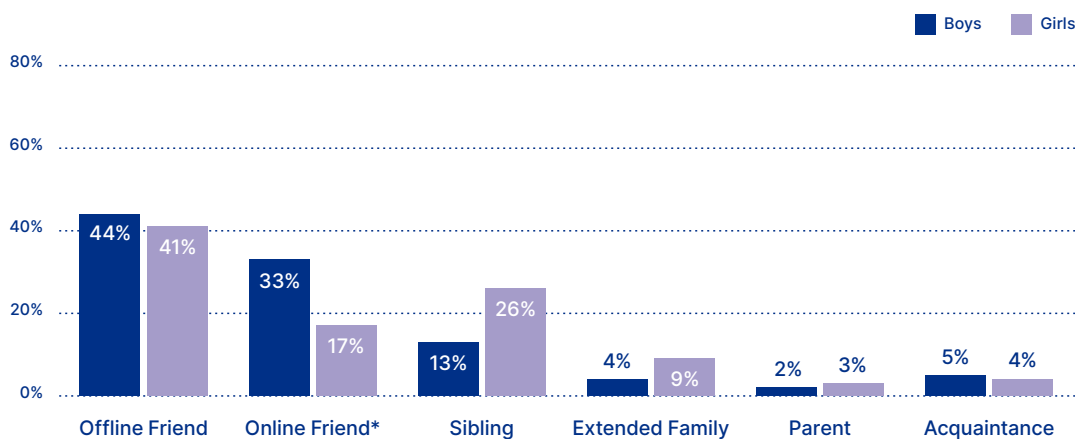


Whether playing with a friend/family member or a stranger during two-player gaming sessions, similar numbers (41%) of teenagers said they frequently used quick messages, emojis, or in-game character actions for brief communication. During multiplayer games, 39% of players frequently engaged in this type of brief communication with friends/family; when playing with a group of strangers, this number dropped to 35%.

Remote Co-Play: Gender Differences in Partners and Communication

Boys and girls once again differed in who they played with during two-player online gaming. While a similar percentage of boys (44%) and girls (41%) played with an offline friend, **significantly more boys (33%) than girls (17%) said they play with a friend they met online.** However, **more girls played with family members than did boys:** 26% played with a sibling (vs. 13% of boys), 9% with an extended family member (vs. 4% of boys), and 3% with a parent (vs. 2% of boys).

When you typically play online with **someone you know**, who are they?

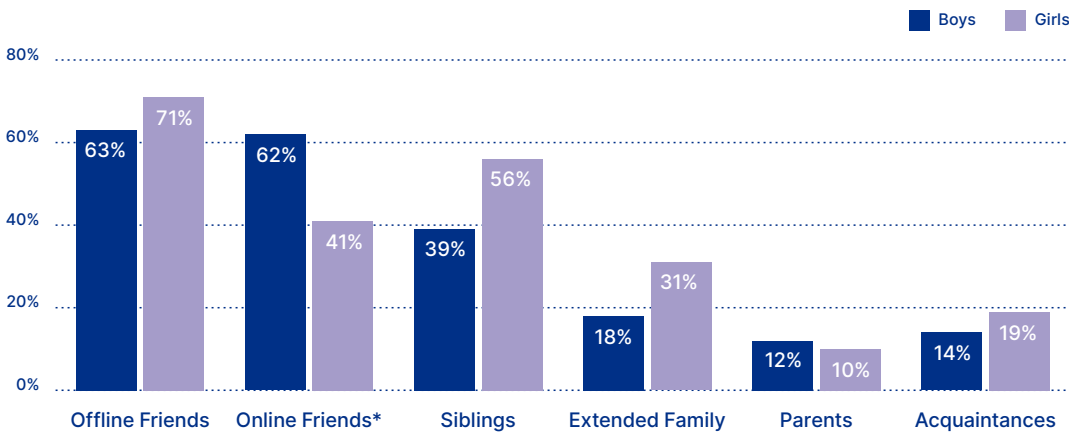


*When applicable, statistically significant differences are indicated with an asterisk.

KEY FINDINGS

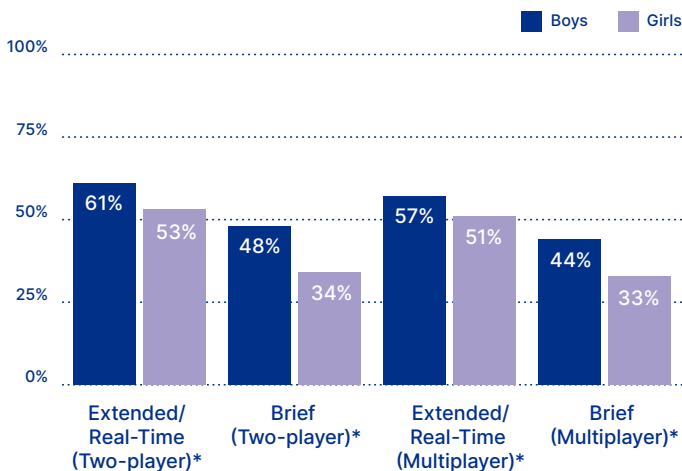
Similar patterns emerged for multiplayer gaming sessions. A majority of both girls (71%) and boys (63%) typically played with friends they know from offline, but significantly more boys (62%) than girls (41%) played with online friends. Once again, significantly more girls selected family members as their gaming partners than boys did: 56% play with a sibling (vs. 39% of boys) and 31% with an extended family member (vs. 18% of boys). Girls and boys were comparable in terms of their play with parents (10% of girls vs. 12% of boys) and acquaintances (19% of girls vs. 14% of boys).

When you typically play online with a group of people you know, who are they?

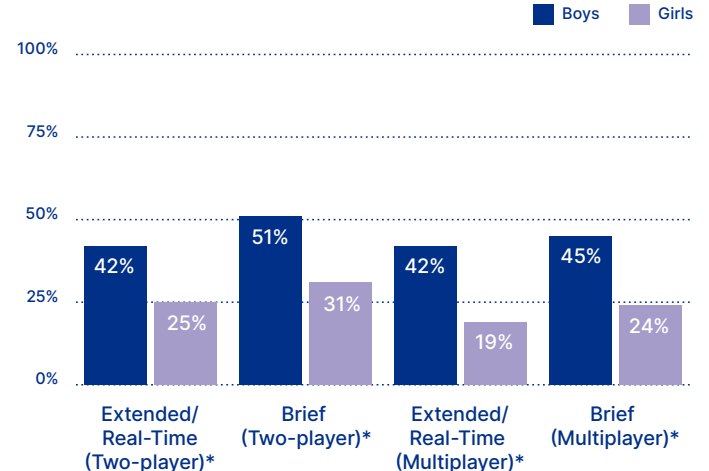


Boys and girls also differed in their communication during game play, with **more boys frequently (“often” or “almost always”) engaging in both real-time/extended and brief communication across all contexts. This difference was particularly notable when interacting with strangers**, where boys consistently reported communicating with them more often than girls; for example, extended conversations were significantly more common for boys during two-player gaming with strangers (42% of boys vs. 25% of girls).

Type of Communication During Play: Friends/Family



Type of Communication During Play: Strangers

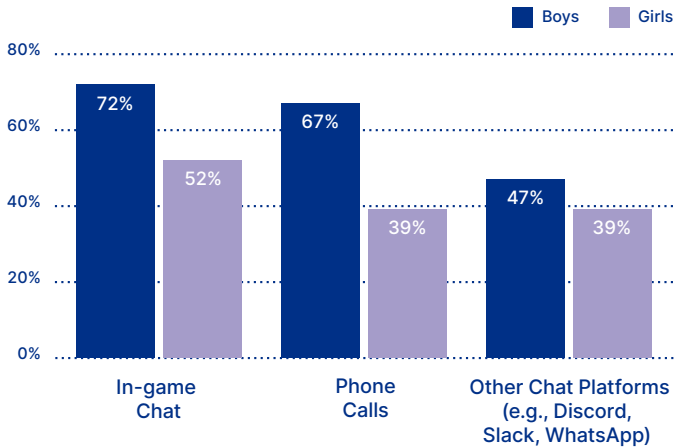


*When applicable, statistically significant differences are indicated with an asterisk.

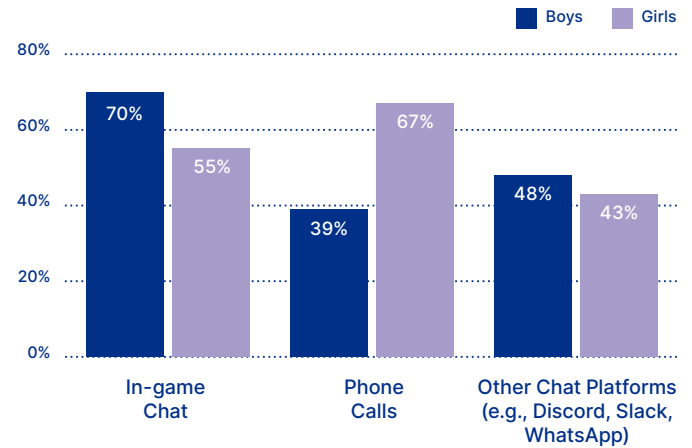
KEY FINDINGS

During two-player gaming, a larger portion of boys than girls used in-game chat (72% of boys vs. 52% of girls), phone calls (67% of boys vs. 39% of girls) and other chat platforms (47% of boys vs. 39% of girls). During multiplayer gaming, a majority of both boys (70%) and girls (55%) used in-game chat for real-time/extended communication with gaming partners, followed by phone calls (39% of boys vs. 67% of girls) and other platforms (48% boys vs. 43% girls).

Platforms Used for Communication with Friends/Family During Two-Player Gaming



Platforms Used for Communication with Friends/Family During Multiplayer Gaming

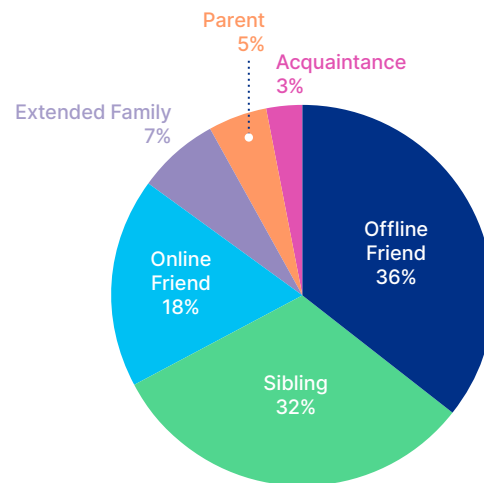


Local (Same Room) Co-Play

In local gaming sessions (i.e. both players in the same room), 41% of teens reported frequently (“often” or “almost always”) playing with or against one other person, while 34% frequently played with or against multiple people.

During local two-player gaming, 36% of participants said they typically played with a friend they know from offline, followed by a sibling (32%), a friend they met online (18%), an extended family member (7%), a parent (5%), or an acquaintance (3%).

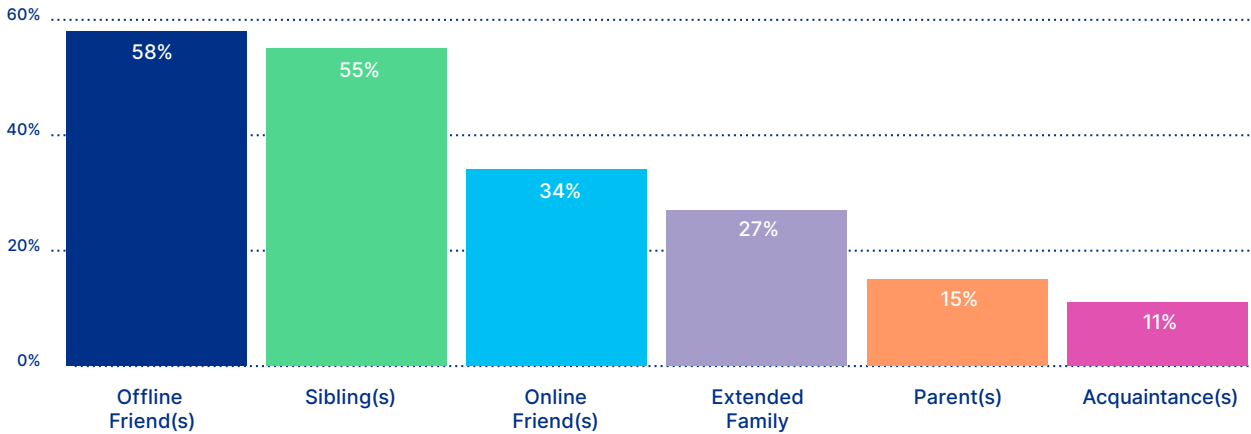
When you typically play video games in the same room with **just one person**, who are they?



KEY FINDINGS

When playing with or against multiple people in the same room, the majority of respondents primarily played with a friend they know offline (58%) and/or with siblings (55%), followed by friends met online (34%), extended family members (27%), parents (15%) and acquaintances (11%).

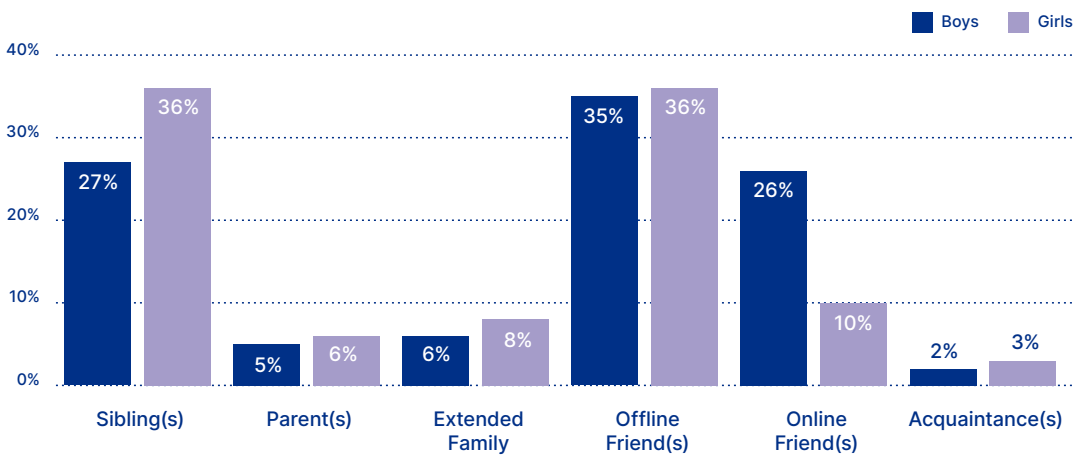
When you typically play video games in the same room with a **group of people**, who are they?



Local Co-Play: Gender Differences in Partners

Boys and girls differed significantly in their local game play, with **more boys typically playing with friends they met online and more girls playing with family members**. A higher percentage of girls than boys reported playing with siblings (36% vs. 27%), parents (6% vs. 5%), and other family members (8% vs. 6%). A slightly higher percentage of girls (36%) than boys (35%) play with a friend they knew offline, whereas boys were more likely than girls to play with an online friend (26% vs. 10%). Acquaintances were the least common gaming partners reported by both girls (3%) and boys (2%).

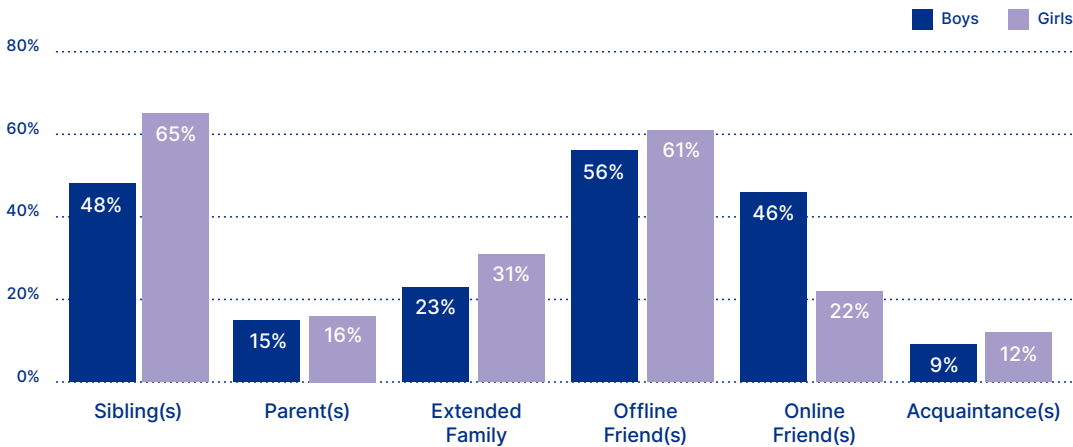
Gender Differences in Two-Player Gaming with Others in the Same Room



KEY FINDINGS

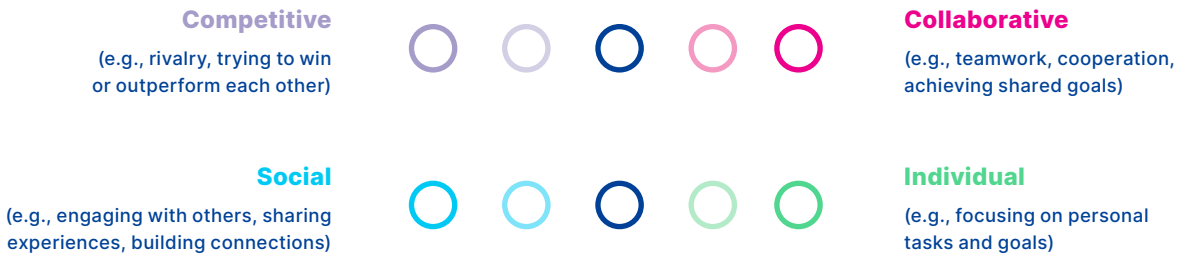
During local multiplayer gaming, more girls said they typically played with family members, including 65% with siblings (vs. 48% for boys) and 31% with extended family members (vs. 23% for boys). A slightly higher percentage of girls (61%) than boys (56%) played with friends they knew from offline, while significantly more boys (46%) than girls (22%) chose to play with friends they knew from online.

Gender Differences in Multiplayer Gaming with Others in the Same Room



Social Gaming Experiences

For each type of play, participants were asked to rate their experiences along each of the following dimensions: *positive vs. negative*, *competitive vs. collaborative*, *social vs. individual*, *civil vs. toxic*, and *safe vs. unsafe*.*



Overall, most teens rated their experiences gaming with others as positive, including more than three-quarters for play with friends/family (80% for multiplayer gaming, 79% for two-player) and more than two-thirds for play with strangers (67% for multiplayer gaming, 72% for two-player). For every type of game play, positive experiences outweighed negative ones, with no specific type being rated by a majority of respondents as “unsafe”, “toxic”, or “negative”. However, the extent to which gameplay was seen as competitive vs. collaborative or individual vs. social did vary by the type of play and by gender.

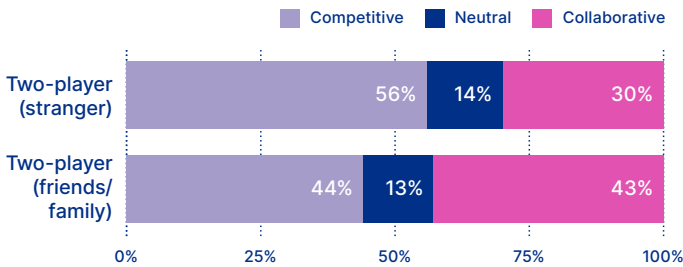
*For each scale, the two responses closest to each side were coded under that descriptor (e.g., competitive, social), while the middle responses were coded as “Neutral”. Full scales are detailed in survey questions section of Appendix.

KEY FINDINGS

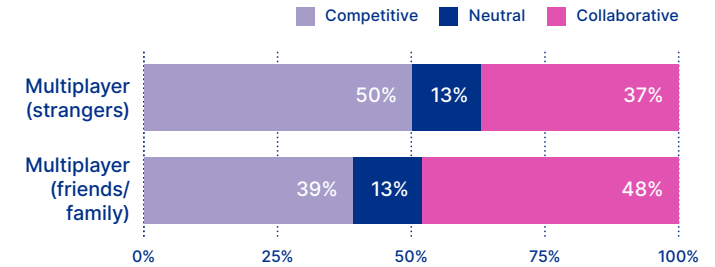
Remote Play: Social Experiences

Overall, teens consistently perceived certain types of game play as more competitive and others as more collaborative. In general, **more young people saw playing with a stranger as competitive compared to playing with friends or family**, which was true for both two-player and multiplayer gaming. More specifically, **multiplayer gaming with friends/family members was the only type of play viewed by more respondents as collaborative (48%) than competitive (39%).**

Two-Player Gaming
Competitive vs. Collaborative

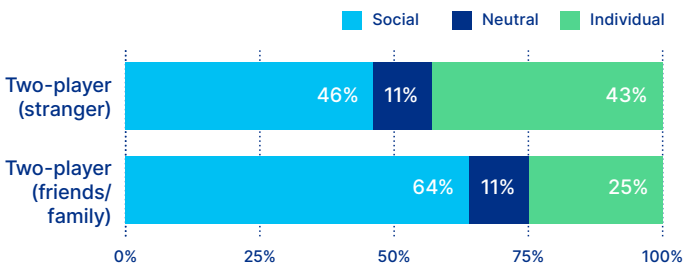


Multiplayer Gaming
Competitive vs. Collaborative

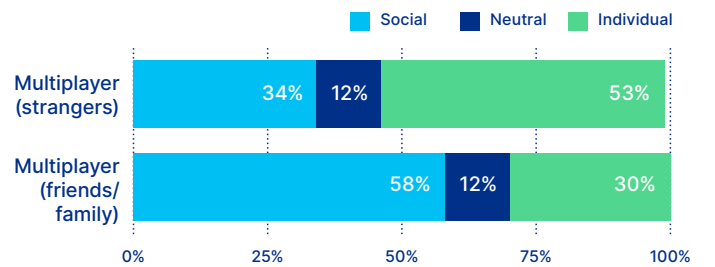


Similarly, more teens perceived two-player gaming with friends/family as social (64%) than other forms of play, including multiplayer gaming with friends/family (58%) and two-player gaming with a stranger (46%).

Two-Player Gaming
Social vs. Individual



Multiplayer Gaming
Social vs. Individual



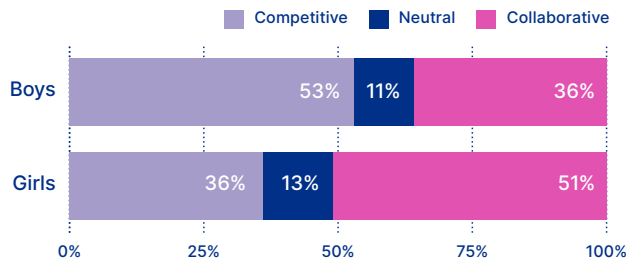
Perceptions of safety and civility were positive across different types of play. For two-player games, 81% of teens felt safe when playing with a friend or family member, and 78% still felt safe when playing with a stranger. 68% of participants rated two-player gaming with friends/family as civil, compared to 66% when playing with a stranger. **Only 9% of teenagers felt unsafe during multiplayer gaming with friends/family members, although when playing with strangers, this number increased to 15%.** Multiplayer gaming sessions with friends/family were seen as the most civil (71%); **multiplayer with strangers, though seen as the least civil (64%), was still only considered toxic by 21% of respondents.**

KEY FINDINGS

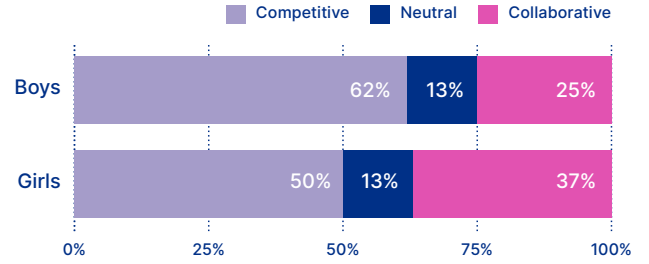
Remote Play: Gender Differences

Competitive vs. Collaborative: For two-player gaming sessions with a friend or family member, roughly half of girls (51%) rated their experience as collaborative, while 53% of boys viewed this type of play as competitive. When gaming with a stranger, a majority of participants from each gender saw their play as competitive (62% of boys and 50% of girls).

Two-Player Gaming with Friends/Family
Competitive vs. Collaborative

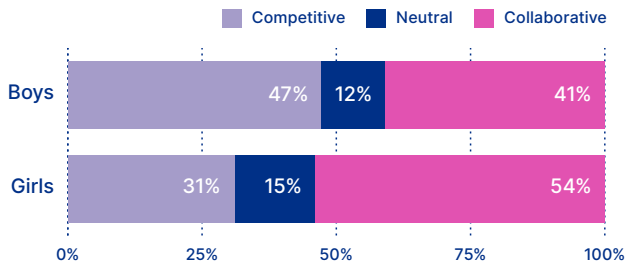


Two-Player Gaming with a Stranger
Competitive vs. Collaborative

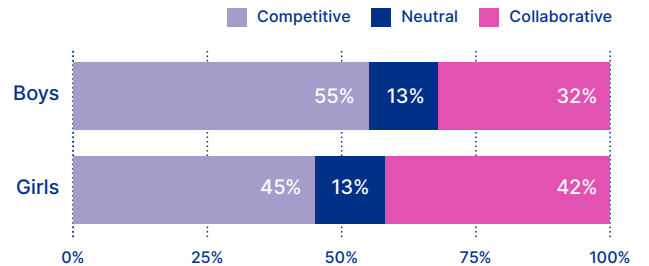


During multiplayer gaming sessions with friends/family members, 54% of girls perceived their play as collaborative, while 47% of boys viewed it as competitive. When playing with strangers, 55% of boys and 45% of girls saw their play as competitive.

Multiplayer Gaming with Friends & Family
Competitive vs. Collaborative



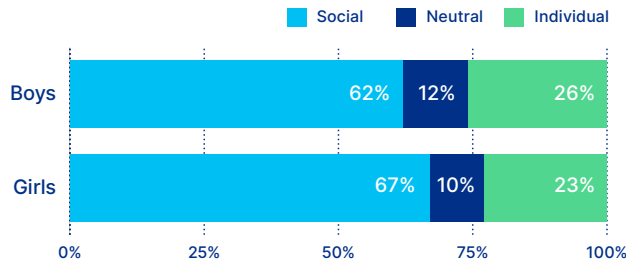
Multiplayer Gaming with Strangers
Competitive vs. Collaborative



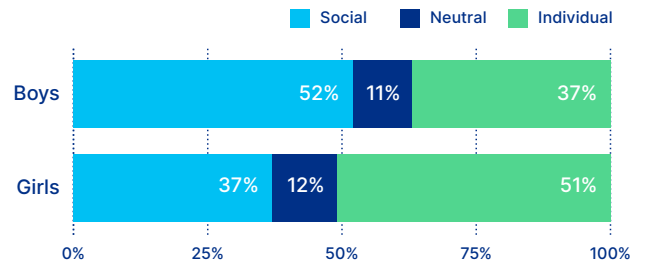
KEY FINDINGS

Social vs. Individual: For two-player gaming sessions with a friend or family member, a majority of both girls (67%) and boys (62%) rated their experience as social. When playing with a stranger, 51% of girls found this type of play to be more individual, while 52% of boys perceived their experience as more social.

Two-Player Gaming with Friends/Family
Social vs. Individual

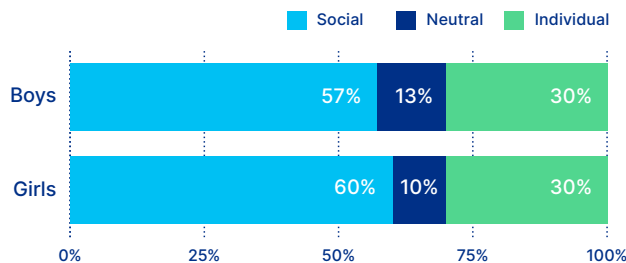


Two-Player Gaming with a Stranger
Social vs. Individual

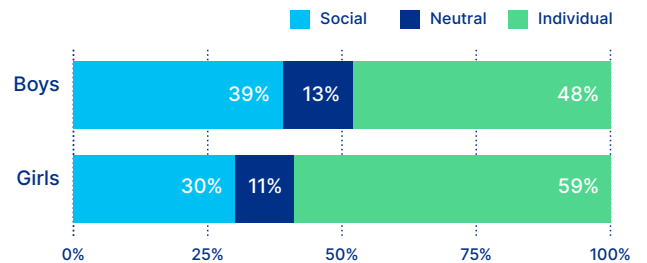


In multiplayer gaming sessions with friends/family members, a majority of teens (60% of girls and 57% of boys) perceived their experience as more social. **When playing with strangers, more girls than boys considered their experience to be more individual (59% of girls and 48% of boys).**

Multiplayer Gaming with Friends/Family
Social vs. Individual



Multiplayer Gaming with Strangers
Social vs. Individual



Remote Play: Safety and Civility

A significant majority (84% of girls and 78% of boys) considered two-player gaming with a friend/family member to be safe, while only 7% of girls and 12% of boys saw it as unsafe. Multiplayer gaming with friends/family members were seen as safe by more girls (82%) than boys (75%), while more boys (13%) than girls (6%) saw it as unsafe.

A comparable portion of boys (16%) and girls (15%) considered two-player gaming with a stranger as unsafe, while **more boys (15%) than girls (9%) perceived multiplayer gaming with strangers as unsafe.**

Two-player sessions with either a friend/family member or a stranger were generally perceived as more civil (by 71%/70% of girls and 65%/64% of boys) than toxic (by 16% of girls and 22% of boys).

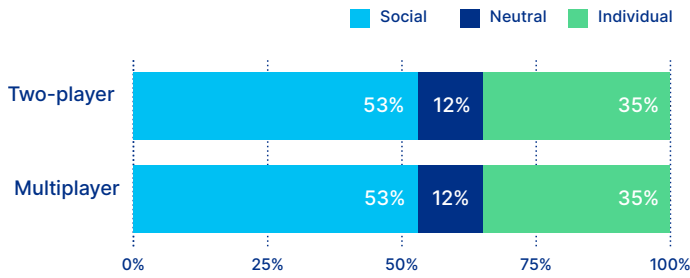
KEY FINDINGS

Local Co-Play

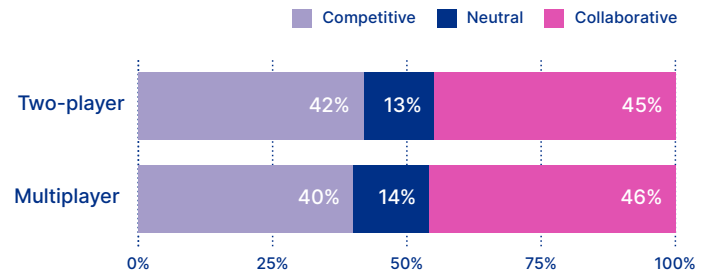
A majority of teenagers reported positive experiences when gaming with others in the same room, whether in two-player (79%) or multiplayer sessions (78%). Both multiplayer and two-player gaming sessions were generally seen as civil (70% for multiplayer vs. 68% for two-player) and safe (79% for multiplayer vs. 81% for two-player).

Roughly half of participants viewed both multiplayer (46%) and two-player (45%) gaming as collaborative (45% for two-player, 46% for multiplayer) and social (53% each for both two-player and multiplayer).

Local Co-Play
Social vs. Individual



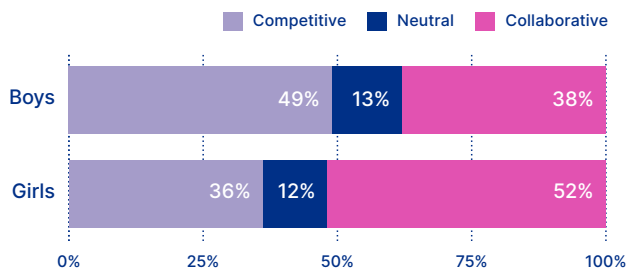
Local Co-Play
Competitive vs. Collaborative



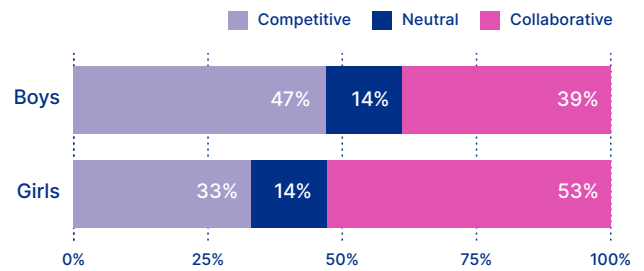
Local Co-Play: Gender Differences

Competitive vs. Collaborative: Boys and girls had different perspectives on the competitive vs. collaborative nature of their local game play: **significantly more boys than girls said that their local game play was competitive**, both for two-player (49% for boys vs. 36% for girls) and multiplayer (46% of boys vs. 33% of girls). On the other hand, **more than half the girls rated these types of game play as collaborative**.

Local Two-Player Gaming
Competitive vs. Collaborative



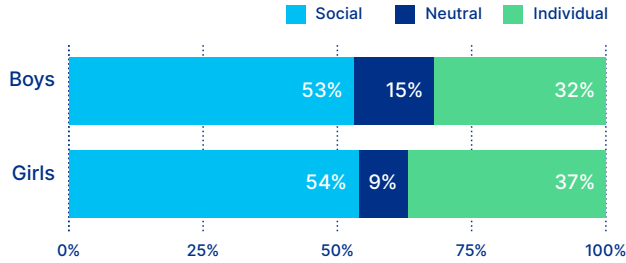
Local Multiplayer Gaming
Competitive vs. Collaborative



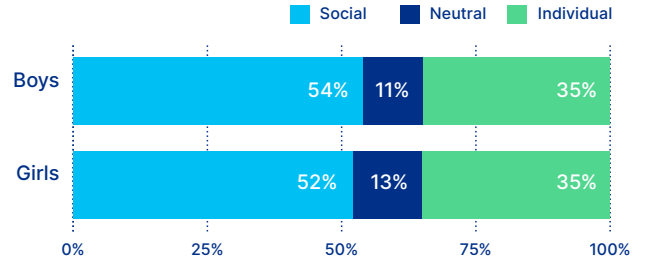
KEY FINDINGS

Social vs. Individual: For local two-player gaming, the majority of both girls (54%) and boys (53%) rated their play as more social than individual. Similarly, 52% of girls and 54% of boys perceived local multiplayer gaming as social.

Local Co-Play Social vs. Individual



Local Co-Play Social vs. Individual



Local Co-Play: Safety

Though a majority of both girls (85%) and boys (76%) considered local two-player gaming to be safe, **a significantly higher proportion of boys (13%) than girls (7%) perceived it as unsafe**. Similarly, a substantial majority of girls (84%) and boys (75%) considered local multiplayer gaming as safe, but **a significantly larger proportion of boys (14%) than girls (6%) regarded this play as unsafe**.

Gaming and Social Wellbeing

Finally, we explored the relationship between adolescents' frequency of engaging in various types of play and their perceived loneliness. **Our analysis indicated some correlation between all types of play with perceived loneliness**, meaning that participants who reported playing video games more frequently were more likely to also report higher levels of loneliness; **this does not necessarily imply that teenagers' gaming is causing them to be more lonely, only that there is a consistent relationship between the two factors.**

Overall, local multiplayer gaming was the type of gaming most strongly associated with perceived loneliness (.21). This was closely followed by local two-player gaming (.19), solo play (.18), and online multiplayer gaming with strangers (.17). Online two-player gaming with a stranger (.15) and a friend/family member (.14) fell somewhere in the middle, while online multiplayer gaming with friends/family members was the least associated with loneliness (.11).

Gender Differences: Gaming and Loneliness

Our findings also suggested that **the association between various types of gaming and perceived loneliness is more pronounced among boys.** Local multiplayer gaming showed the strongest correlation with loneliness (.34) for boys, followed by local two-player gaming (.31). Remote multiplayer and two-player gaming with strangers (both at .26), multiplayer gaming with friends/family members (.23), two-player gaming with a friend/family (.20), and solo play (.18) were all also associated with loneliness among boys.

For girls, the correlations between gaming and loneliness are generally weaker and follow a different pattern. **Solo play is the most strongly correlated with loneliness for girls (.18)**, followed by remote multiplayer gaming with strangers (.12), remote two-player gaming with a friend/family member (.11), and local two-player gaming (.11). The weakest correlations were between local multiplayer gaming (.10) and two-player gaming with a stranger (.08), while remote multiplayer gaming with friends/family members showed no correlation with perceived loneliness.

TYPE OF GAMING	CORRELATIONS WITH PERCEIVED LONELINESS		
	All Participants	Boys	Girls
Solo Play	.18	.18	.18
Remote multiplayer with strangers	.17	.26	.12
Remote multiplayer with friends/family members	.11	.23	.04
Remote two-player with stranger	.15	.26	.08
Remote two-player with a friend/family member	.14	.20	.11
Local two-player	.19	.31	.11
Local multiplayer	.21	.34	.10

■ = Types of gaming most strongly correlated with loneliness. (All correlations are statistically significant except when indicated in italics.)



CONCLUSION



Conclusion

Summary

1. **Most of the teenagers from our sample began playing video games during childhood and continue to do so frequently, engaging in both solo and social play across different devices. Notably, girls' play was centered more around portable devices and boys more around stationary gaming setups.**
 - a. More than three-quarters of participants (79%) started gaming before the age of 10, highlighting how gaming is integrated into children's daily lives from a young age.
 - b. The overwhelming majority (93%) reported playing digital video games at least once in the past month, suggesting that gaming occasionally (if not more often) is becoming the norm for teenagers.
 - c. Teens reported spending significantly more time playing video games on non-school days, reflecting the role of gaming as a leisure activity that may expand to fill up longer periods of available time.
 - d. While single-player gaming stood out as the most common and frequent mode of play, social gaming is still quite popular among teenagers.
 - e. Girls played more on portable devices like mobile phones, while boys tended to use gaming consoles and other non-portable devices. This pattern could indicate that boys prefer more stationary and feature-rich gaming experiences, but it is also likely that game design (e.g., themes, gameplay styles) may reflect and reinforce established behavioral norms that influence the observed gender differences.
2. **Our findings demonstrate that gaming is not only a form of entertainment but also a platform for fostering and maintaining social interactions, with some key differences by player gender in partner selection and interaction styles.**
 - a. Teens reported playing with a wide range of gaming partners, including their existing networks (e.g., friends and family) and extending to those outside their immediate circle, but friends from offline settings were the most common group of co-players in online gaming sessions.
 - b. Boys seemed more inclined to engage with a wider variety of players across all contexts of play, including both friends and strangers; this could suggest that boys have more diverse social interactions through gaming, or it may partly stem from a desire for competition rather than social connection. Girls, on the other hand, demonstrated a greater tendency to include family members in their gaming sessions, which may indicate that gaming for them is an extension of existing familiar relationships.

CONCLUSION

- 3. Teenagers use a range of communication tools and styles to make their gaming experiences more social. From extended conversations to quick exchanges, gaming platforms can serve as dynamic spaces for engagement and expression.**
 - a. While in-game chat was the most commonly-used platform for communication during play, phone calls and other chat platforms (e.g., Discord, Slack, WhatsApp) were also popular, meaning that understanding and promoting positive gaming experiences requires looking beyond just video game platforms.
 - b. Teenagers were slightly less likely to communicate with strangers than friends or family members, which suggests that the level of comfort and openness in communication may vary depending on familiarity.
 - c. A higher percentage of boys reported frequently engaging in both extended conversations and brief communication when gaming online, suggesting a more active use of gaming as a means of social interaction.
- 4. Overall, a substantial majority of teens reported positive experiences when gaming with others, regardless of their gender or the type of play.**
 - a. For every type of gameplay, positive experiences outweighed negative ones, with no specific game type being predominantly seen as “unsafe”, “toxic”, or “negative”. This positive outlook extends across both remote and local gaming sessions.
 - b. A significant majority of teens feel safe and find their gaming environments to be civil, even when playing with strangers. This challenges common narratives around the toxicity of online gaming spaces, indicating that many adolescents navigate these environments with a sense of security and civility.
- 5. Gaming with friends and family was perceived as more collaborative and social, especially in multiplayer sessions. In contrast, gaming with strangers leans towards competitiveness and individual play, suggesting that familiarity encourages collaboration whereas anonymity might encourage competition.**
 - a. Girls were more likely to view their gaming sessions (especially with friends and family) as collaborative, whereas boys often perceived these sessions as more competitive, suggesting that gender identity may shape teens’ perspectives and experiences around digital play.

CONCLUSION

6. **The positive association between all types of play and perceived loneliness suggests that while gaming is a social activity, it may be particularly attractive for young people who are feeling lonely yet might not fully compensate for in-person interactions.**
 - a. Local multiplayer gaming showed the strongest correlation with loneliness; this could stem from a variety of factors, such as group dynamics, predispositions for loneliness, and the nature of social interactions within this context.
 - b. The association between various types of gaming and perceived loneliness is more pronounced among boys compared to girls, which could indicate that boys may be engaging in social gaming in ways that do not always fulfill their need for meaningful connection.

Implications

The results of this survey clearly demonstrate that a substantial portion of teenagers are playing video games frequently, often for several hours a day, and taking advantage of opportunities to socialize through gaming. While our survey did not explicitly target gamers, nearly all respondents reported gaming at least once in the past month; other studies have found similarly high levels among the general teenage population, with nearly half of teens saying they play video games every day (Rideout et al., 2022).

Despite the overall positive gaming experiences reported by participants, stakeholders such as parents and game designers should consider the following in order to further promote safe, healthy, and fulfilling gaming experiences for young people:

Most of the teenagers in our sample began playing video games at a young age, raising important questions about the role of gaming in child and adolescent development.

- Nearly three-quarters of teens we surveyed began gaming between ages 5-10; children of this age may not be adequately prepared for the content of popular games and/or unsupervised interactions with others online. Parents can benefit from familiarizing themselves with the age-based ESRB rating system for video games (Entertainment Software Ratings Board, 2024), while also recognizing that these ratings may not cover online interactions.

Although the boys and girls we surveyed reported similar amounts of video game play, their behaviors and experiences differed considerably. These findings demonstrate that gaming now extends beyond the traditional audience of predominantly teenage boys to encompass a diverse group of players and experiences.

- Overall, teenage boys reported playing and communicating more with strangers online, offering additional opportunities for social connection but also potentially putting them at higher risk for unsafe or negative interactions. Meanwhile, girls played more often with friends and family members; it is not clear whether they were simply less interested in playing with strangers or actively avoided this type of play based on expectations or past experiences. Regardless, game designers and other adults have a responsibility to promote safe and positive gaming experiences for both boys and girls.
- Boys were more likely to rate their gaming experiences as competitive, as opposed to the more collaborative experiences reported by girls. This may be related to broader gender norms, where boys are generally taught to be assertive while girls are expected to be more caring and supportive of others; existing research suggests that these same dynamics apply to video game play (Dickey, 2006; Waechter & Meschik, 2023).
- Additionally, the design of games themselves can reflect and even reinforce traditional gender norms. Competitive games often feature themes that might attract more boys, while collaborative games frequently explore topics that may not align as closely with stereotypically male interests. To foster inclusivity, game designers should consider integrating both competitive and collaborative elements, thereby appealing to a more diverse audience and potentially challenging entrenched gender norms.

CONCLUSION

Aside from player-level characteristics like gender, it is also essential to consider how both game content and the context of play may influence young people's gaming behavior and experiences.

- For example, certain contexts may allow for extended play and social interaction, such as long weekend gaming sessions on a console with robust social features, as compared to brief play sessions on a mobile game that doesn't support multiplayer or chat.
- The design of social features within games, particularly in-game chat, may play a crucial role in shaping the nature of player interactions. To foster a more social and civil environment, we recommend implementing robust content moderation practices within both text and voice chat as well as offering tools for players to block and/or report other users. Alternatively, game designers could offer features that encourage collaboration without requiring direct communication. Game designers and content moderators can also be responsive to the unique needs of their particular audience(s) by actively soliciting and incorporating player feedback into social features.

Although gaming appears to be a highly social and largely positive experience for most teenagers, we found that every type of play was positively associated with loneliness. This connection doesn't necessarily suggest gaming causes loneliness, but it may indicate that lonely adolescents are not finding meaningful social connections within these spaces. To foster more fulfilling social experiences, young people should complement their gaming and online interactions with diverse social activities such as sports, creative pursuits, and other extracurriculars.

- Somewhat surprisingly, the type of gaming most strongly associated with loneliness was local multiplayer, where people who already know each other are playing together in the same room. There are several potential explanations for this finding:
 - The setting might increase a sense of isolation for young people who feel disconnected from the group dynamics, highlighting the difference between simply being physically present and feeling socially or emotionally connected. Similarly, those already experiencing higher levels of loneliness might be more sensitive to perceived social cues of exclusion or disconnection.
 - Boys, for whom the association between local play and loneliness was particularly strong, may be more inclined towards competitive gaming as a form of socializing, which might not always fulfill their need for meaningful connections. For some boys, gaming might also occupy a central role in their lives, possibly at the expense of other activities that offer more varied and fulfilling social experiences.



METHODOLOGY

Methodology

This report presents findings from a comprehensive national online survey conducted with 1,468 adolescents, aged 13 to 17, across the United States. The survey was administered in November 2023, specifically from November 3rd to 10th. We utilized Alchemer, an online research platform, to recruit participants. Alchemer connects with over 350 survey panels, encompassing a global network of over 437 million users. For our study, American adolescents pre-registered with these panels were invited to participate. To ensure a representative and diverse sample, we established quotas based on age, gender identity, race/ethnicity, and type of school, achieving representation from each of the 50 states. The breakdown was as follows:

- **By age:** 20.4% 13-years-olds (N = 300); 20.2% 14-years-olds (N = 297); 19.9% 15-years-olds (N = 292); 19.2% 16-years-olds (N=282); and 20.2% 17-years-olds (N= 297).
- **By gender identity:** 47.3% girl/woman (N = 695), 46.7% boy/man (N= 685), 3% non-binary (N=44).
- **By race/ethnicity:** 41.3% white/non-Hispanic; 25.6% Hispanic; % multi-racial; 13.7% black/non-Hispanic; 6.9% multi-racial; 4.9% Asian; 2.1% American Indian; 0.5% Middle Eastern; 0.7% Hawaiian; 1.1% other and 3.2% prefer not to answer.
- **By grade:** 26.4% in middle school (5-8, N = 375), 71.9% in high school (9-12, N= 1020), and 1.7% not in school (N = 24).
- **By type of school:** 75.5% in public school (including charter schools, N = 1053), 14.5% in private schools (including religious or secular schools, N = 202), and homeschool (6.6%, N= 92).
- **Parental education:** 23.2% no degree (N= 340), 20.5% high school degree or GED (N = 301), 6.7% Associate's degree (e.g., community college, trade school, etc.) (N =98), 13.9% Bachelor's degree (4-year college or university) (N= 204), 16.3% Master's degree (N= 240), 3.2% PhD/MD/JD or other advanced degree (N = 47).

The survey explored various aspects of the participants' gaming attitudes and behaviors, including their interaction with others within gaming environments, perceptions of these environments, and social wellbeing. The Boston Children's Hospital IRB reviewed and approved this study.

Prior to the main data collection phase, a preliminary soft launch of the survey was conducted to assess completion rates and response patterns. This pilot test involved 58 respondents, whose data were subsequently excluded from the final analysis to account for adjustments made post-soft launch. For a detailed list of the survey questions, please refer to the Appendix at the end of this report.

Parent and participant consent. Given the anonymous nature of this survey and its recruitment through Alchemer, parental consent was waived for this survey. All participants were part of Alchemer's survey network and had previously agreed to be contacted for survey opportunities, providing an initial layer of consent. At the beginning of our survey, participants were presented with detailed information about the study, including its purpose, potential risks, compensation details, contact information for the research team, and other pertinent details. By proceeding with the survey ('next button'), participants acknowledged their understanding of this information and consented to participate, with the option to withdraw at any time.

METHODOLOGY

Compensation. Participants received compensation from their respective survey companies in the form of points, proportional to the survey's length. These points could be redeemed for various rewards like Amazon gift cards, PayPal deposits, or upgrades to certain services, in accordance with each company's specific agreement. Compensation structures varied slightly between companies.

Quality Control. To ensure participant engagement and attention, we incorporated an “attention-check” question towards the end of the survey. Participants who failed to answer this question correctly (N = 200) were disqualified and redirected to an external webpage. We rigorously reviewed and cleaned the final data set to exclude incomplete or low-quality responses.

Rounding Policy. Throughout this report, numerical values might not sum precisely to 100% due to rounding, the presence of multiple response options, or instances of skipped questions or responses.

Gender Identity Categories. In our analysis, we primarily compared responses from participants identifying as “boy” or “girl”. Individuals identifying differently (e.g., non-binary, genderfluid) constituted only 3% of our sample. Due to this small representation, it was not feasible to perform meaningful comparative analysis for these categories.



APPENDIX

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Survey Questions

Part 1: Demographics

Let's start with some basic information about you...

1. Are you between the ages of 13-17?

Qualifier: Must answer yes

2. How old are you? (please input numbers only)

3. What country do you live in?

Qualifier: Must be in the U.S.

4. What state do you live in?

Alabama	Hawaii	Massachusetts	New Mexico	South Dakota
Alaska	Idaho	Michigan	New York	Tennessee
Arizona	Illinois	Minnesota	North Carolina	Texas
Arkansas	Indiana	Mississippi	North Dakota	Utah
California	Iowa	Missouri	Ohio	Vermont
Colorado	Kansas	Montana	Oklahoma	Virginia
Connecticut	Kentucky	Nebraska	Oregon	Washington
Delaware	Louisiana	Nevada	Pennsylvania	West Virginia
Florida	Maine	New Hampshire	Rhode Island	Wisconsin
Georgia	Maryland	New Jersey	South Carolina	Wyoming

5. What is your gender identity?

Girl/woman

Boy/man

Nonbinary (e.g., genderqueer, gender non-conforming)

Different identity (please specify) _____

Prefer not to answer

6. What is your race/ethnicity? (select all that apply)

American Indian or Alaskan Native

Asian

Black or African American

Hispanic or Latino

Native Hawaiian or Other Pacific Islander

Middle Eastern or North African

White

Other (please specify) _____

Prefer not to answer

7. Have you been diagnosed by a doctor with any of the following disorders? (select all that apply)

Depression

Anxiety

Autism Spectrum Disorder (ASD)

Attention Deficit Disorder (ADHD)

Learning disorder

Eating disorder

Other mental or behavioral disorder not listed

Prefer not to answer

8. What is the highest degree of education one of your parents has obtained?

No degree

High school degree or GED

Associate's degree (e.g., community college, trade school, etc.)

Bachelor's degree (4-year-college or university)

Master's degree

PhD/MD/JD or other advanced degree

I'm not sure

Prefer not to answer

Part 2: General Gaming Behavior

Great, now let’s talk about your gaming habits in general. In this survey, “video games” refers to any form of game played using electronic devices, including consoles, computers, handheld devices, smartphones, or any online platform. It could be a game you play alone or with others, either online or offline. However, we are NOT referring to non-digital games like board games or card games.

9. Did you play any type of digital video game at least once **within the last month**?

Yes

No [if selected, skip to “Gaming Communities” section]

10. How old were you (roughly) when you started playing video games? [input numbers]

11. On a typical **school day**, how much time do you spend playing video games on the following types of devices?

[open text field]

Please specify your answer in hours and minutes. For example: 2 hours 30 minutes.

1) Portable Devices (e.g., smartphone, tablet, Switch) ___ hours ___ minutes

2) Non-portable devices (e.g., PC, laptop, PlayStation, Xbox, Nintendo) ___ hours ___ minutes

12. On a typical **non-school day**, how much time do you spend playing video games on the following types of devices? [open text field]

Please specify your answer in hours and minutes. For example: 2 hours 30 minutes.

1) Portable Devices (e.g., smartphone, tablet, Switch) ___ hours ___ minutes

2) Non-portable devices (e.g., PC, laptop, PlayStation, Xbox, Nintendo) ___ hours ___ minutes

13. Which game do you currently enjoy playing the most? If you are unsure, you can check your devices or consider popular examples like Fortnite, Minecraft, FIFA, Madden, World of Warcraft, Candy Crush, Roblox, or Pokemon Go. For platforms that host multiple games, like Roblox, please specify the particular game you play on the platform. [open text field]

14. There are many ways to engage with video games. For example, you might find yourself playing alone, with a friend in the same room, or with complete strangers online. **Take a moment to reflect on your typical gaming habits during a regular week without any significant disruptions (e.g., vacations/holidays, special events).**

When playing video games **in your own space (e.g., at home)**, how often do you engage in the following types of play?

	Never	Rarely	Sometimes	Often	Almost Always
Alone, not interacting with others (i.e., single-player)	[if selected, skip the relevant section]				
With/against one person you don’t know (i.e., two-player games w/ a stranger)	[if selected, skip the relevant section]				
With/against a group of people you don’t know (i.e., multiplayer games with strangers)	[if selected, skip the relevant section]				
With/against one other person you do know (e.g., two-player games with a friend, each of you in different rooms/spaces)	[if selected, skip the relevant section]				
With/against a group of people you know (e.g., multiplayer games w/ friends, each of you in different rooms/spaces)	[if selected, skip the relevant section]				

APPENDIX: SURVEY QUESTIONS

15. When playing video games with others **in the same room/space**, how often do you engage in the following types of play?

	Never	Rarely	Sometimes	Often	Almost Always
With/against one other person you know in the same room/place (e.g., two-player games w/a friend)					
With/against multiple people in the same room/place (e.g., teaming up in multiplayer mode, taking turns in a single-player game, playing side-by-side in separate games)					

Part 3: Gaming Experiences

A. Playing with/against one unknown person online

These questions are about your gaming behavior and experiences while **playing online** with **one person you don't know**. Please think about a **typical week** where there are no significant disruptions to your usual routine (e.g., vacations/holidays, special events).

16. When gaming with someone you don't know, how often do you have an extended conversation and/or communicate with them in real-time? (e.g., through in-game chatting)

Never	Rarely	Sometimes	Often	Almost Always

17. When gaming online with someone you don't know, how often do you use quick messages, emojis or in-game character actions to **briefly communicate**?

Never	Rarely	Sometimes	Often	Almost Always

18. Which of the following best describes your **typical experience** when playing online with someone you don't know?

Collaborative (e.g., teamwork, cooperation, achieving shared goals)						Competitive (e.g., rivalry, trying to win or outperform each other)
Individual (e.g., focusing on personal tasks & goals)						Social (e.g., engaging with others, sharing experiences, building connections)
Civil (e.g., respectful dialogue, courteous communication, constructive feedback)						Toxic (e.g., trolling [intentionally upsetting others online], hostile/aggressive behavior)
Safe (e.g., secure interactions, respecting others' privacy, maintaining personal boundaries)						Unsafe (e.g., personal attacks/bullying, potential privacy issues)
Positive (e.g., playful, enjoyable, satisfying interactions)						Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

B. Playing with/against one known person online

These questions are about your gaming behavior and experiences while **playing online with one person you know**. Please think about a **typical week** where there are no significant disruptions to your usual routine (e.g., vacations/holidays, special events).

19. Who do you usually play online with?

- | | |
|---|---|
| A friend you know offline (e.g., peer) | A parent |
| A friend who you know online (i.e., met through gaming) | Another family member (e.g., cousin, uncle/aunt) |
| A sibling | An acquaintance (someone you know but are not close with, e.g., distant friend, neighbor) |

20. When gaming with someone you know, how often do you have an extended conversation and/or communicate with them in real-time? (e.g., through in-game chat, Discord, phone call)

Never	Rarely	Sometimes	Often	Almost Always
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21. When having an extended conversation and/or communicating in real-time during a game, which platform(s) do you use? (check all that apply)

- In-game chat
- Other chat platform (e.g., Discord, Slack, WhatsApp)
- Phone call
- Other: (write-in) _____

22. When gaming with someone you know, how often do you use quick messages, emojis or in-game character actions to briefly communicate?

Never	Rarely	Sometimes	Often	Almost Always
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23. Which of the following best describes your typical experience when playing online with someone you know?

Collaborative (e.g., teamwork, cooperation, achieving shared goals)							Competitive (e.g., rivalry, trying to win or outperform each other)
Individual (e.g., focusing on personal tasks & goals)							Social (e.g., engaging with others, sharing experiences, building connections)
Civil (e.g., respectful dialogue, courteous communication, constructive feedback)							Toxic (e.g., trolling [intentionally upsetting others online], hostile/aggressive behavior)
Safe (e.g., secure interactions, respecting others' privacy, maintaining personal boundaries)							Unsafe (e.g., personal attacks/bullying, potential privacy issues)
Positive (e.g., playful, enjoyable, satisfying interactions)							Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

C. Playing with/against a group of unknown people online

These questions are about your gaming behavior and experiences while **playing online** with a **group of people you don't know**. Please think about a **typical week** where there are no significant disruptions to your usual routine (e.g., vacations/holidays, special events).

24. When gaming with a group of people you don't know, how often do you have an extended conversation and/or communicate with them in real-time? (e.g., through in-game chatting)

Never	Rarely	Sometimes	Often	Almost Always
-------	--------	-----------	-------	---------------

25. When gaming with a group of people you don't know, how often do you use quick messages, emojis or in-game character actions to **briefly communicate**?

Never	Rarely	Sometimes	Often	Almost Always
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26. Which of the following best describes your **typical experience** when playing online with a group of people you don't know?

Collaborative (e.g., teamwork, cooperation, achieving shared goals)							Competitive (e.g., rivalry, trying to win or outperform each other)
Individual (e.g., focusing on personal tasks & goals)							Social (e.g., engaging with others, sharing experiences, building connections)
Civil (e.g., respectful dialogue, courteous communication, constructive feedback)							Toxic (e.g., trolling [intentionally upsetting others online], hostile/aggressive behavior)
Safe (e.g., secure interactions, respecting others' privacy, maintaining personal boundaries)							Unsafe (e.g., personal attacks/bullying, potential privacy issues)
Positive (e.g., playful, enjoyable, satisfying interactions)							Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

D. Playing with/against a group of known people online

These questions are about your gaming behavior and experiences while **playing online** with a **group of people you know**, each of you in a different room/space. Please think about a **typical week** where there are no significant disruptions to your usual routine (e.g., vacations/holidays, special events).

27. When you typically play online with a group of people you know, who are they? (check all that apply)

- Friend(s) you know offline (e.g., peer)
- Friend(s) who you know online (i.e., met through gaming)
- Sibling(s)
- Parent(s)
- Other family member(s) (e.g., cousin, uncle/aunt)
- Acquaintance(s) (someone you know but are not close with, e.g., distant friend, neighbor)

APPENDIX: SURVEY QUESTIONS

28. When gaming with a group of people you know, how often do you have an extended conversation and/or communicate with them in real-time? (e.g., in-game chat, Discord, phone call)

Never [if selected, skip next question]	Rarely	Sometimes	Often	Almost Always
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29. When having an extended conversation and/or communicating in real-time during a game, which platform(s) do you use? (check all that apply)

In-game chat Phone call
 Other chat platform (e.g., Discord, Slack, WhatsApp) Other: (write-in) _____

30. How often do you use quick messages, emojis or use in-game character actions/emotes to communicate with your game partners?

Never	Rarely	Sometimes	Often	Almost Always
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31. Which of the following best describes your typical experience when playing online with a group of people you know?

Collaborative (e.g., teamwork, cooperation, achieving shared goals)						Competitive (e.g., rivalry, trying to win or outperform each other)
Individual (e.g., focusing on personal tasks & goals)						Social (e.g., engaging with others, sharing experiences, building connections)
Civil (e.g., respectful dialogue, courteous communication, constructive feedback)						Toxic (e.g., trolling [intentionally upsetting others online], hostile/aggressive behavior)
Safe (e.g., secure interactions, respecting others' privacy, maintaining personal boundaries)						Unsafe (e.g., personal attacks/bullying, potential privacy issues)
Positive (e.g., playful, enjoyable, satisfying interactions)						Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

E. Playing with/against one known person, same room/place

These questions are about your gaming behavior and experiences while playing with **someone you know (in the same physical room/space)**. Please think about a **typical week** where there are no significant disruptions to your usual routine (e.g., vacations/holidays, special events).

32. When you typically play video games in the same room with just one person, who are they? (check all that apply)

A friend you know offline (e.g., peer) A parent
 A friend who you know online (i.e., met through gaming) Another family member (e.g., cousin, uncle/aunt)
 A sibling An acquaintance (someone you know but are not close with, e.g., distant friend, neighbor)

33. Which of the following best describes your typical experience when playing with someone you know?

Collaborative (e.g., teamwork, cooperation, achieving shared goals)							Competitive (e.g., rivalry, trying to win or outperform each other)
Individual (e.g., focusing on personal tasks & goals)							Social (e.g., engaging with others, sharing experiences, building connections)
Civil (e.g., respectful dialogue, courteous communication, constructive feedback)							Toxic (e.g., trolling [intentionally upsetting others online], hostile/aggressive behavior)
Safe (e.g., secure interactions, respecting others' privacy, maintaining personal boundaries)							Unsafe (e.g., personal attacks/bullying, potential privacy issues)
Positive (e.g., playful, enjoyable, satisfying interactions)							Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

F. Playing with/against a group of known people, same room/space

These questions are about your gaming behavior and experiences while playing **in the same physical room/space with a group of people you know**. This could include scenarios such as playing together on the same system, taking turns in a game, engaging in online matches while side-by-side, or teaming up in multiplayer mode in the same room. Please think about a typical week where there are no significant disruptions to your usual routine (e.g., vacations/holidays, special events).

34. When you typically play games with a group of people in the same room, who are they? (check all that apply)

- Friend(s) you know offline (e.g., peer)
- Friend(s) who you know online (i.e., met through gaming)
- Sibling(s)
- Parent(s)
- Other family member(s) (e.g., cousin, uncle/aunt)
- Acquaintance(s) (someone you know but are not close with, e.g., distant friend, neighbor)

35. Which of the following best describes your typical experience when playing in the same room with a group of people you know?

Collaborative (e.g., teamwork, cooperation, achieving shared goals)							Competitive (e.g., rivalry, trying to win or outperform each other)
Individual (e.g., focusing on personal tasks & goals)							Social (e.g., engaging with others, sharing experiences, building connections)
Civil (e.g., respectful dialogue, courteous communication, constructive feedback)							Toxic (e.g., trolling [intentionally upsetting others online], hostile/aggressive behavior)
Safe (e.g., secure interactions, respecting others' privacy, maintaining personal boundaries)							Unsafe (e.g., personal attacks/bullying, potential privacy issues)
Positive (e.g., playful, enjoyable, satisfying interactions)							Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

G. Gaming Communities

These questions are about your experiences with **gaming communities** (e.g., teams, clans, guilds, clubs) or groups that exist outside of any single play session. Please think about a **typical week** where there are no significant disruptions to your usual routine (e.g., vacations/holidays, special events).

36. Are you currently a member of any gaming community/group? (e.g., team, clan/guild, club)

Yes No [if selection, skip section]

37. How often do you communicate with your community/group members outside of game play? (e.g., planning strategies, organizing events, just chatting)

Never	Rarely	Sometimes	Often	Almost Always
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38. How often do you feel valued, included, or respected within your gaming community/group?

Never	Rarely	Sometimes	Often	Almost Always
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39. Within your gaming community/group, how often do you feel excluded from group activities, decisions, or social interactions?

Never	Rarely	Sometimes	Often	Almost Always
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40. How would you rate the overall supportiveness of your gaming community/group?

Never	Rarely	Sometimes	Often	Almost Always
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Part 4: Talking about Games

It is common to **talk about games, even when you are not actively playing**. These questions are about your **experiences discussing games and game-related content in different settings** (e.g., privately, publicly, online, offline). Please think about a **typical week** where there are no significant disruptions to your usual routine (e.g., vacations/holidays, special events).

A. Online gaming-related conversations

41. How often do you engage in **private online conversations about games** (e.g., game-related experiences, tips & tricks, challenges) **with one person**?

Never [if selected, skip next question]	Rarely	Sometimes	Often	Almost Always
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APPENDIX: SURVEY QUESTIONS

42. When having these one-on-one conversations about gaming, who are you most likely talking to? (check one)

- A friend you know offline (e.g., peer)
- A friend who you know online (i.e., met through gaming)
- A sibling
- A parent
- Another family member (e.g., cousin, uncle/aunt)
- An acquaintance (someone you know but are not close with, e.g., distant friend, neighbor)
- Someone you do not know

43. During these one-on-one conversations, which of the following best describes your typical experience?

Individual (e.g., focusing on personal tasks & goals)						Social (e.g., engaging with others, sharing experiences, building connections)
Civil (e.g., respectful dialogue, courteous communication, constructive feedback)						Toxic (e.g., trolling [intentionally upsetting others online], hostile/aggressive behavior)
Safe (e.g., secure interactions, respecting others' privacy, maintaining personal boundaries)						Unsafe (e.g., personal attacks/bullying, potential privacy issues)
Positive (e.g., playful, enjoyable, satisfying interactions)						Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

44. When you are not gaming, how often do you discuss game-related topics in group chat(s)? (e.g., social media, messaging apps, text messages)

Never [if selected, skip next question]	Rarely	Sometimes	Often	Almost Always
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45. During these group chats, which of the following best describes your typical experience?

Individual (e.g., focusing on personal tasks & goals)						Social (e.g., engaging with others, sharing experiences, building connections)
Civil (e.g., respectful dialogue, courteous communication, constructive feedback)						Toxic (e.g., trolling [intentionally upsetting others online], hostile/aggressive behavior)
Safe (e.g., secure interactions, respecting others' privacy, maintaining personal boundaries)						Unsafe (e.g., personal attacks/bullying, potential privacy issues)
Positive (e.g., playful, enjoyable, satisfying interactions)						Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

APPENDIX: SURVEY QUESTIONS

46. When you are not in a game, how often do you **publicly post** game-related content on your **social media platforms** (e.g., Instagram, Snapchat)?

Never [if selected, skip next two questions]	Rarely	Sometimes	Often	Almost Always
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47. How often do your friends/followers on social media like, share, or leave positive comments on posts about your gaming experiences?

Never	Rarely	Sometimes	Often	Almost Always
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48. How often do you get dislikes or other negative comments/responses when you post about your gaming experiences on social media?

Never	Rarely	Sometimes	Often	Almost Always
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B. Offline gaming-related conversations

49. When you're spending time with just **one other person offline**, how often do video games come up in your conversation?

Never [if selected, skip next question]	Rarely	Sometimes	Often	Almost Always
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50. Who do you typically discuss video games with the most? (check one)

- A friend you know offline (e.g., peer)
- A friend who you know online (i.e., met through gaming)
- A sibling
- A parent
- Another family member (e.g., cousin, uncle/aunt)
- An acquaintance (someone you know but are not close with, e.g., distant friend, neighbor)

51. During these one-on-one conversations, which of the following best describes your typical experience?

Individual (e.g., focusing on personal tasks & goals)							Social (e.g., engaging with others, sharing experiences, building connections)
Positive (e.g., playful, enjoyable, satisfying interactions)							Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

52. When you are spending time with a **group of people offline**, how often do video games come up in your conversation?

Never	Rarely	Sometimes	Often	Almost Always
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APPENDIX: SURVEY QUESTIONS

53. Who are these people that you talk about video games with offline? (select all that apply)

- Friends(s) you know offline (e.g., peer)
- Friend(s) who you know online (i.e., met through gaming)
- Sibling(s)
- Parent(s)
- Other family member(s) (e.g., cousin, uncle/aunt)
- Acquaintance(s) (someone you know but are not close with, e.g., distant friend, neighbor)

54. During these group conversations, which of the following best describes your typical experience?

Individual (e.g., focusing on personal tasks & goals)							Social (e.g., engaging with others, sharing experiences, building connections)
Positive (e.g., playful, enjoyable, satisfying interactions)							Negative (e.g., frustrating, stressful/anxiety-inducing encounters)

Part 5: Social Functioning

Great job! Now, we'd like to ask about some of the social aspects of your life more generally (not just in the context of gaming).

55. Over the last three months, how often have you felt that...

	Never	Rarely	Sometimes	Often	Almost Always
I lack companionship.					
I felt left out.					
People are around me but not with me.					
I feel isolated from others.					

56. Over the last three months, how often have you felt that...

	Never	Rarely	Sometimes	Often	Almost Always
Other people's problems really bother me.					
I understand how others feel.					
When I see someone who's happy, I feel happy too.					
I feel sorry for people who can't find anyone to hang out with.					
When I'm mean to someone, I usually feel bad about it later.					

APPENDIX: SURVEY QUESTIONS

57. The following questions ask about thoughts, feelings, and behaviors that you may have had about social situations. Usual social situations include public speaking, speaking in meetings, attending social events or parties, introducing yourself to others, having conversations, giving and receiving compliments, making requests of others, and eating and writing in public.

	Never	Rarely	Sometimes	Often	Almost Always
During the last month, how often have you felt anxious, worried, or nervous about social situations?					
During the last month, how often have you had thoughts of being rejected, humiliated, embarrassed, ridiculed, or offending others?					
During the last month, how often have you avoided, or did not approach or enter, social situations?					

Part 6: Gaming Habits

Thank you for your responses so far. Your participation is invaluable in helping us better understand various gaming behaviors. Now, we would like to understand more about how gaming might affect different aspects of life. This is not about labeling your gaming habits as “good” or “bad”, but rather it provides us with a comprehensive picture of your gaming experiences.

58. How often during the last three months...

	Never	Rarely	Sometimes	Often	Almost Always
Did you think about playing a game all day long?					
Did you spend increasing amounts of time on games?					
Did you play games to forget about real life?					
Have others unsuccessfully tried to reduce your game use?					
Have you felt bad when you were unable to play?					
Did you have fights with others (e.g., family, friends) over your time spent on games?					
Have you neglected other important activities to play games (e.g., school, work, sports)?					

How We Create Impact

The Digital Wellness Lab conducts, translates, and distributes rigorous research on the positive and negative effects of technology and interactive media use on young people to inform our progress towards positive health and development for every child, teen, and young adult.

Through our research, we seek to:

Advance digital wellness focused design, delivery, and marketing practices in the tech industry by working to understand their current and future challenges and to translate our research outcomes into actionable insights to share with company decision-makers to enable healthy interactive media experiences for youth.

Embed digital wellness in healthcare strategies by providing evidence-based knowledge and tools designed to move towards a more standardized understanding of, and approach to digital wellbeing, and to empower clinicians in their ability to help young people and their families build and maintain healthy behaviors.

Our work is supported in part by donations from technology, entertainment, and healthcare companies; philanthropic organizations; and individuals. We do not evaluate, endorse, or give preference to any products or platforms.

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Boston Children's
Digital Wellness Lab

The Digital Wellness Lab at Boston Children's Hospital and Harvard Medical School seeks to understand and promote positive and healthy digital media experiences for young people, from birth through young adulthood.

The Digital Wellness Lab is made up of a dynamic and collaborative team of experts and thought leaders from health sciences, tech, academics and entertainment. We are ever-evolving and welcome others to join us on our mission.

BECOME A SUPPORTER

The Digital Wellness Lab convenes supporters from healthcare, technology, media, and entertainment to deepen our understanding and address the future of young people's healthy engagement with media and technology. If your organization is interested in becoming involved as a financial supporter, please email us at dwl@childrens.harvard.edu

For more information about our work, please contact Cori Stott, Executive Director, at dwl@childrens.harvard.edu