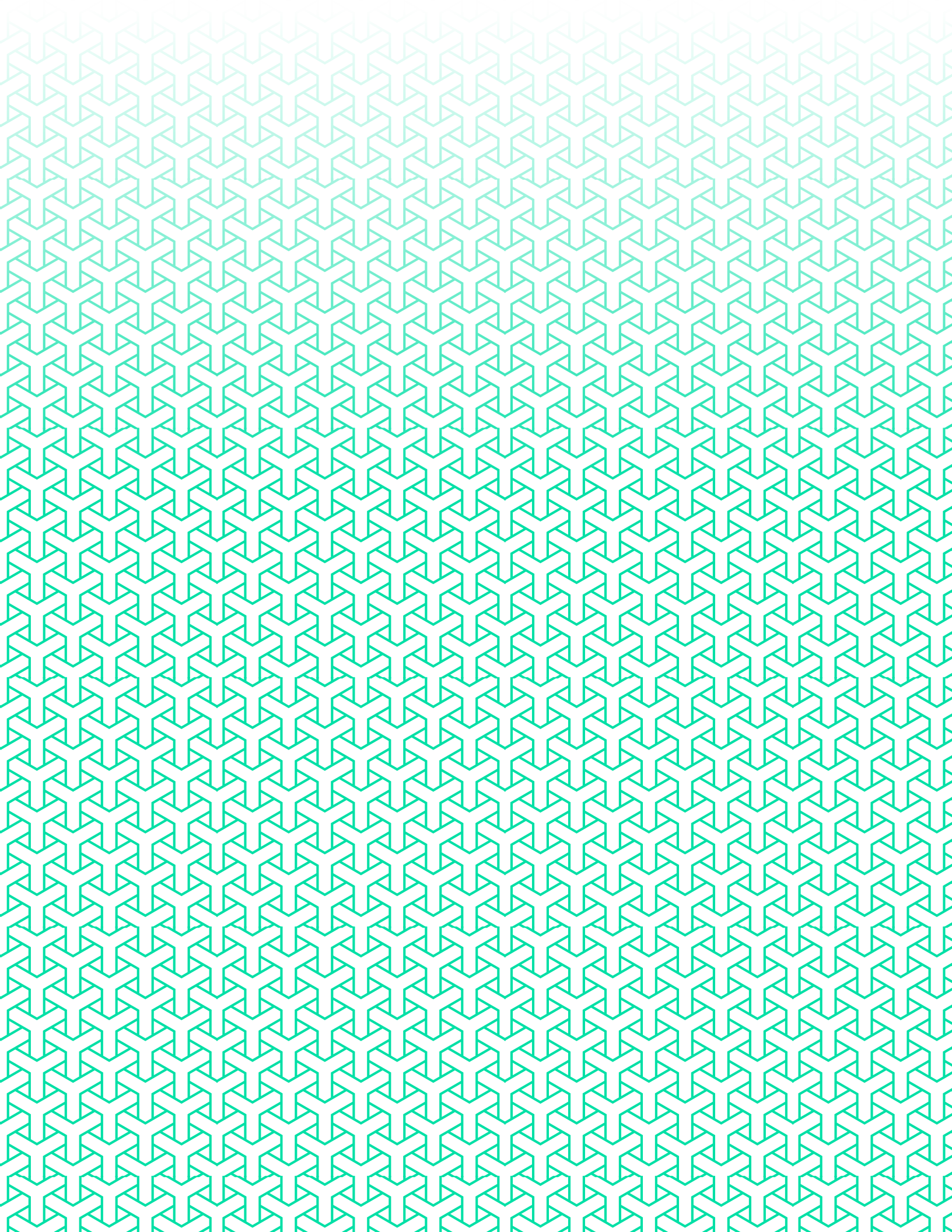


POWER OF PLAY

GLOBAL REPORT 2023







POWER^{OF}PLAY

GLOBAL REPORT 2023

TABLE OF CONTENTS

INTRODUCTION	3
GLOBAL SURVEY DATA	4
ACADEMIC RESEARCH	17
Games Bolster Mental Health	17
Gaming's Broader Benefits	18
Games Becoming More Social	19
Games Helping Research	20
ACADEMIC RESEARCH REFERENCES	21
PARTICIPATING ASSOCIATIONS	22

INTRODUCTION

People tend to think of video games exclusively as entertainment. But as the industry continues to evolve in scope and technology, there is a growing discussion around the benefits of playing video games that go beyond having fun.

For the first time, national trade associations (NTAs) serving the video game industry around the world issued a survey to look at the behaviors and interests of nearly 13,000 players (ages 16 and older) across 12 countries: Australia, Brazil, Canada, France, Germany, Italy, Japan, Poland, South Korea, Spain, the United Kingdom and the United States.

Global players agreed that “having fun” is the number one reason they play games, but also shared that playing video games helps them get through difficult times in their lives, provides them with healthy outlets from everyday challenges and makes them feel happier. Players also universally look to video games for mental stimulation and stress relief.

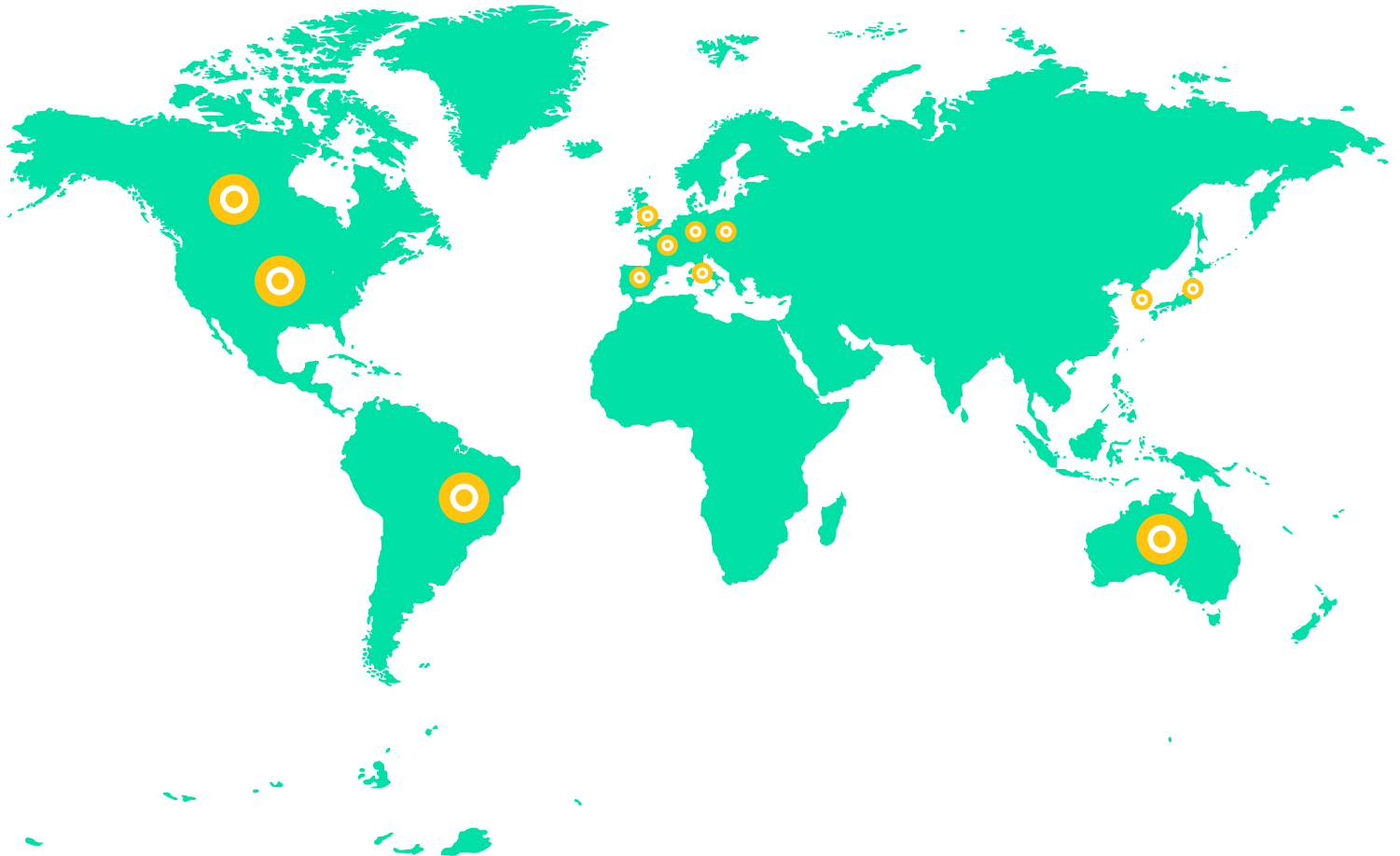
Many people turned to video games as a way to keep connected with friends and family during the COVID-19 pandemic, and those trends have continued. The global

player survey shows that more than half of players play games with other people online and more than a third play with other people in person. Nearly half of all global players say they have met a good friend, spouse or significant other through video games.

But players are not the only ones who are seeing and experiencing the positive effects of playing video games – in fact, a burgeoning body of academic, peer-reviewed research is challenging outdated assumptions about video games and the 3 billion people worldwide who play them. Scientific studies have increasingly found video games provide an important service as a global gathering place for friends, a tool for positive mental health and an outlet for creativity, in addition to offering fun and escapism.

This report includes results from the player survey as well as findings from approximately 15 recent academic studies that validate the player data. This research reveals that video games provide players with social and emotional benefits not replicated by other forms of entertainment, confirming the ***Power of Play***.

GLOBAL SURVEY DATA



12,847 ACTIVE (WEEKLY) GAMERS WERE SURVEYED ACROSS THE FOLLOWING MARKETS:

AUSTRALIA



1,027

BRAZIL



1,139

CANADA



1,013

FRANCE



1,036

GERMANY



1,003

ITALY



1,012

JAPAN



1,001

POLAND



1,019

SOUTH KOREA



1,003

SPAIN



1,022

U.K.



1,027

U.S.A.

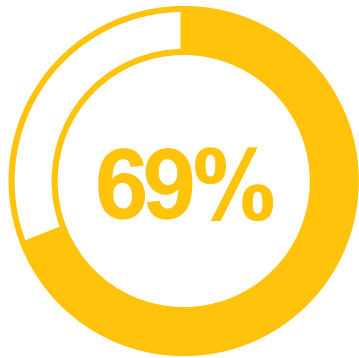


1,545

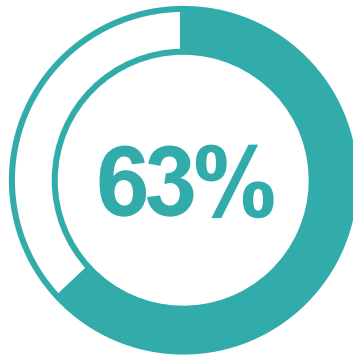
Players worldwide say the top three reasons for playing video games are:



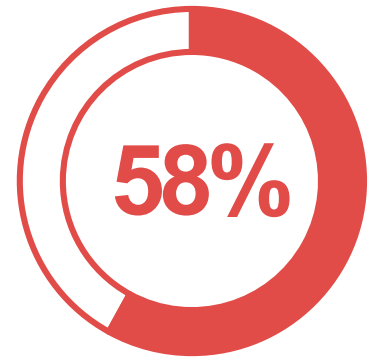
AUSTRALIA	BRAZIL	CANADA	FRANCE	GERMANY	ITALY
To have fun	To have fun	To have fun	To have fun	To have fun	To pass the time
To pass the time	Stress relief/ relaxation	To pass the time	To pass the time	To pass the time	To have fun
Stress relief/ relaxation	To pass the time	Stress relief/ relaxation	Stress relief/ relaxation	Stress relief/ relaxation	Stress relief/ relaxation



To have fun



To pass the time

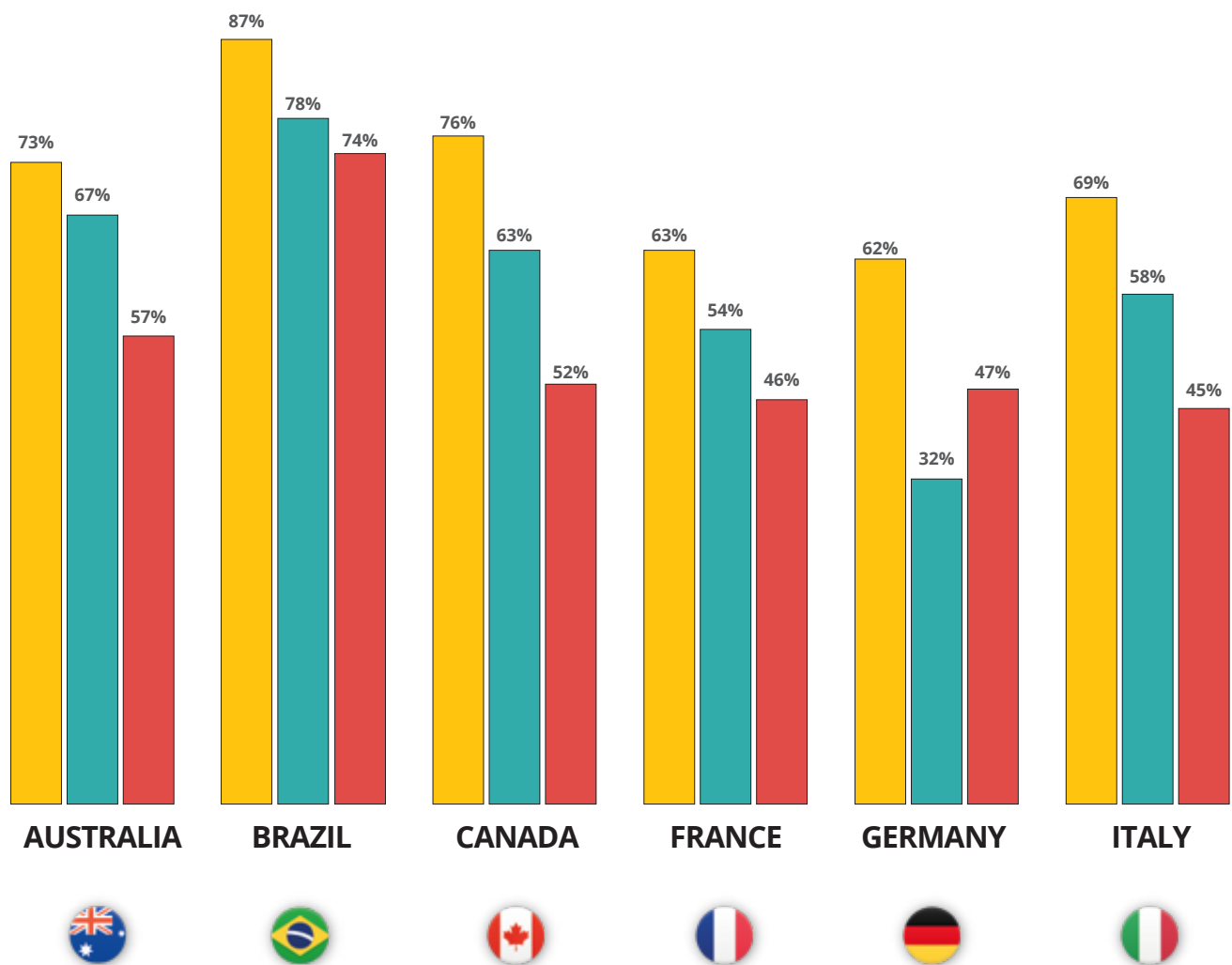


For stress relief/relaxation

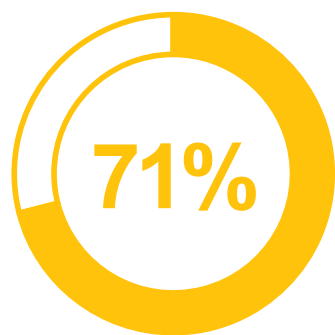


JAPAN	POLAND	SOUTH KOREA	SPAIN	U.K.	U.S.A.
To have fun	To have fun	To have fun	To have fun	To have fun	To have fun
To pass the time	To pass the time	Stress relief/ relaxation	To pass the time	To pass the time	To pass the time
Stress relief/ relaxation	Stress relief/ relaxation	To pass the time	Stress relief/ relaxation	Stress relief/ relaxation	Stress relief/ relaxation

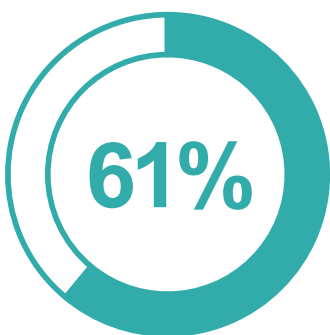
Globally, players say that playing video games reduces stress, anxiety and feelings of isolation.



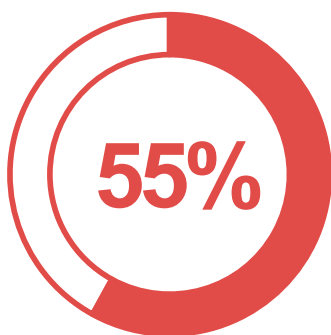
Video games:



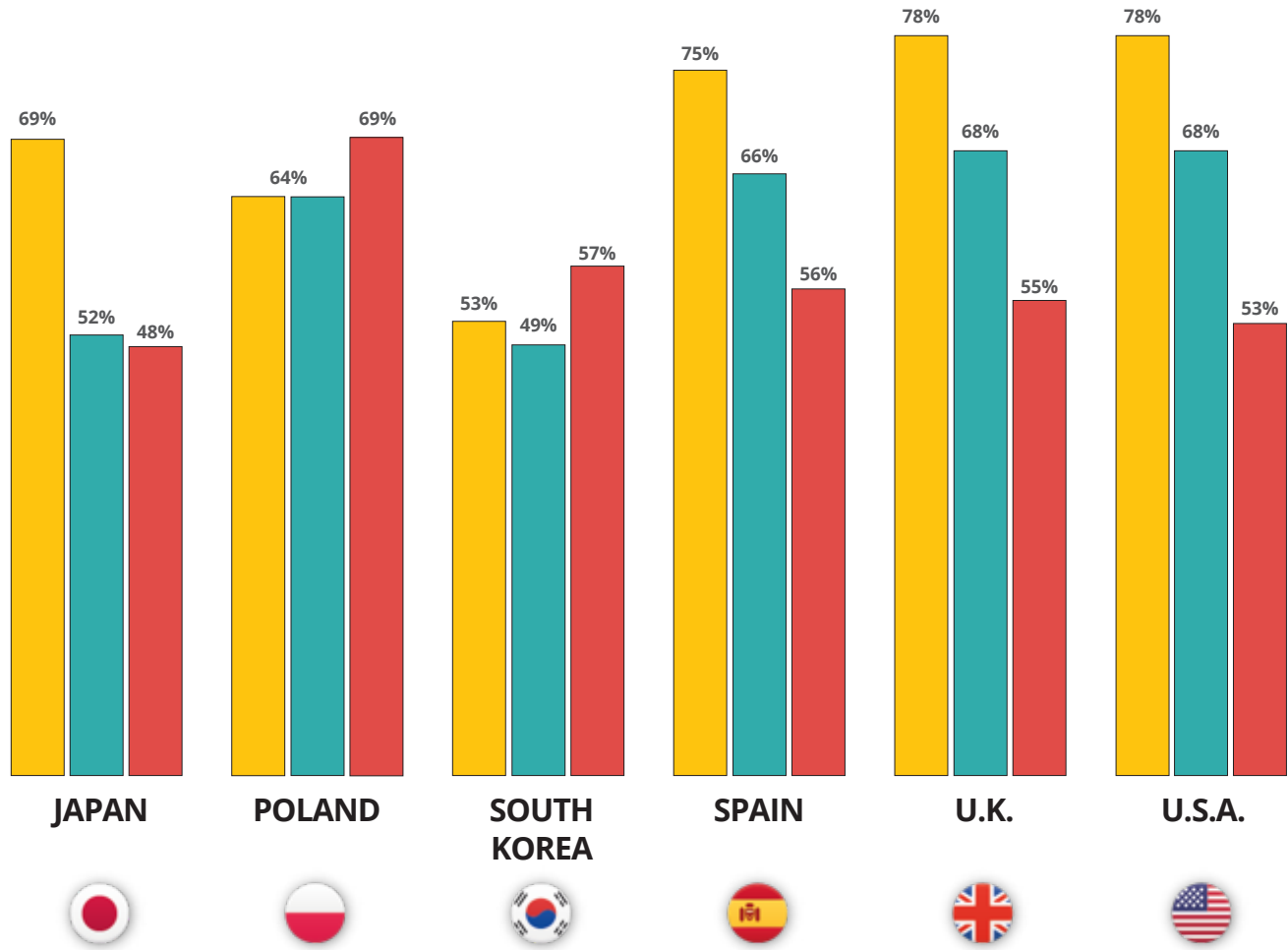
Help me feel less stressed



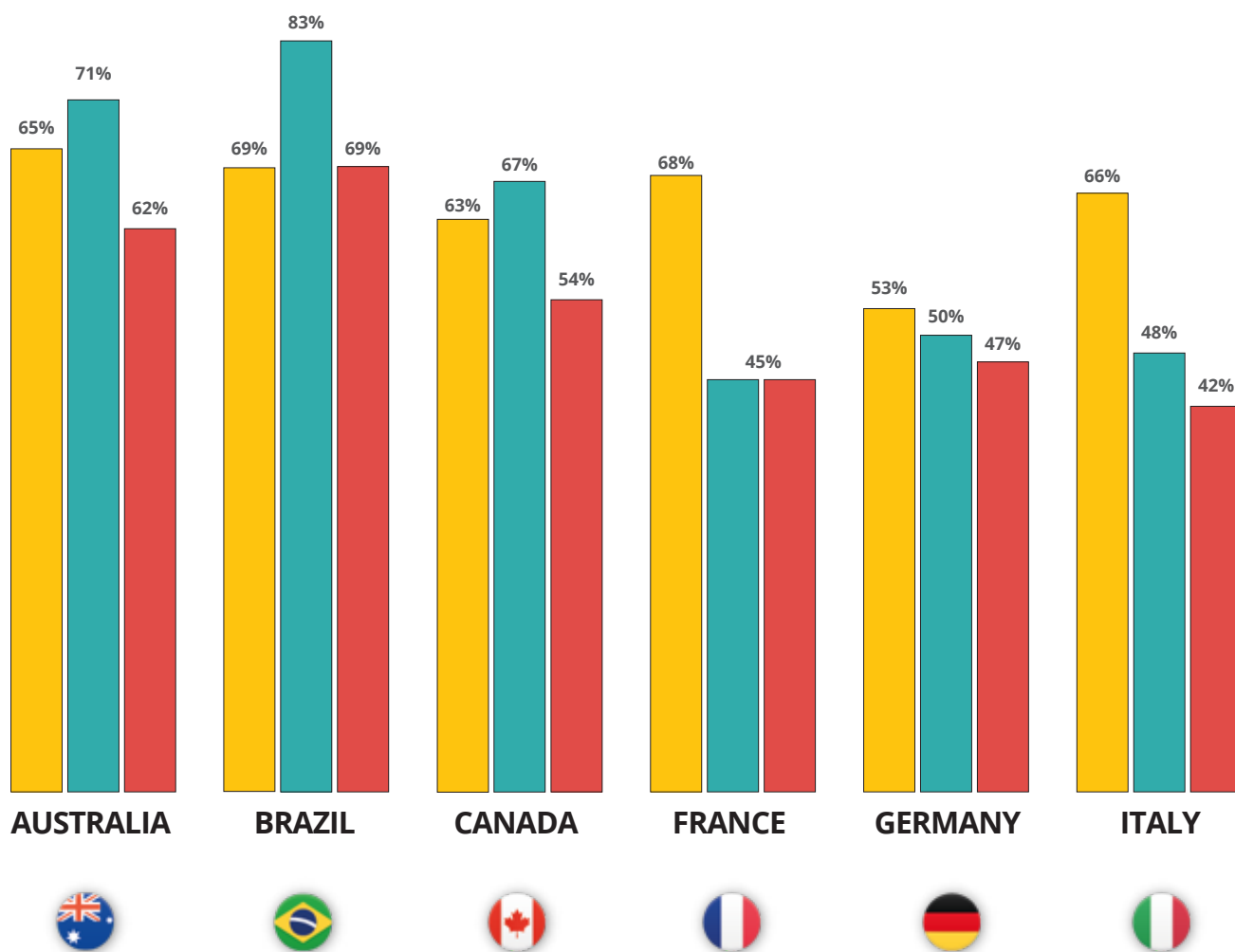
Help me feel less anxious



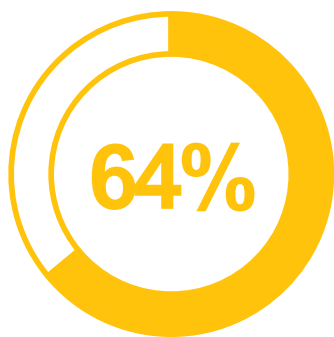
Help me feel less isolated/lonely
by connecting me to other people



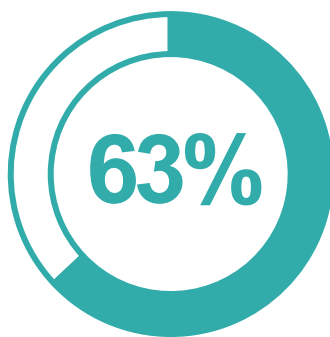
More than half of players around the world say that playing video games provides them with a healthy outlet, helps them feel happier and helps them navigate difficult times.



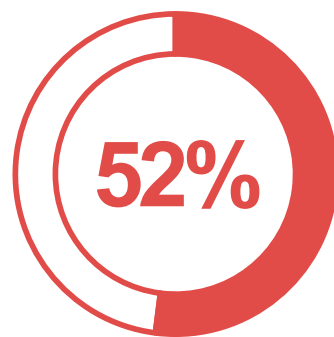
Playing video games:



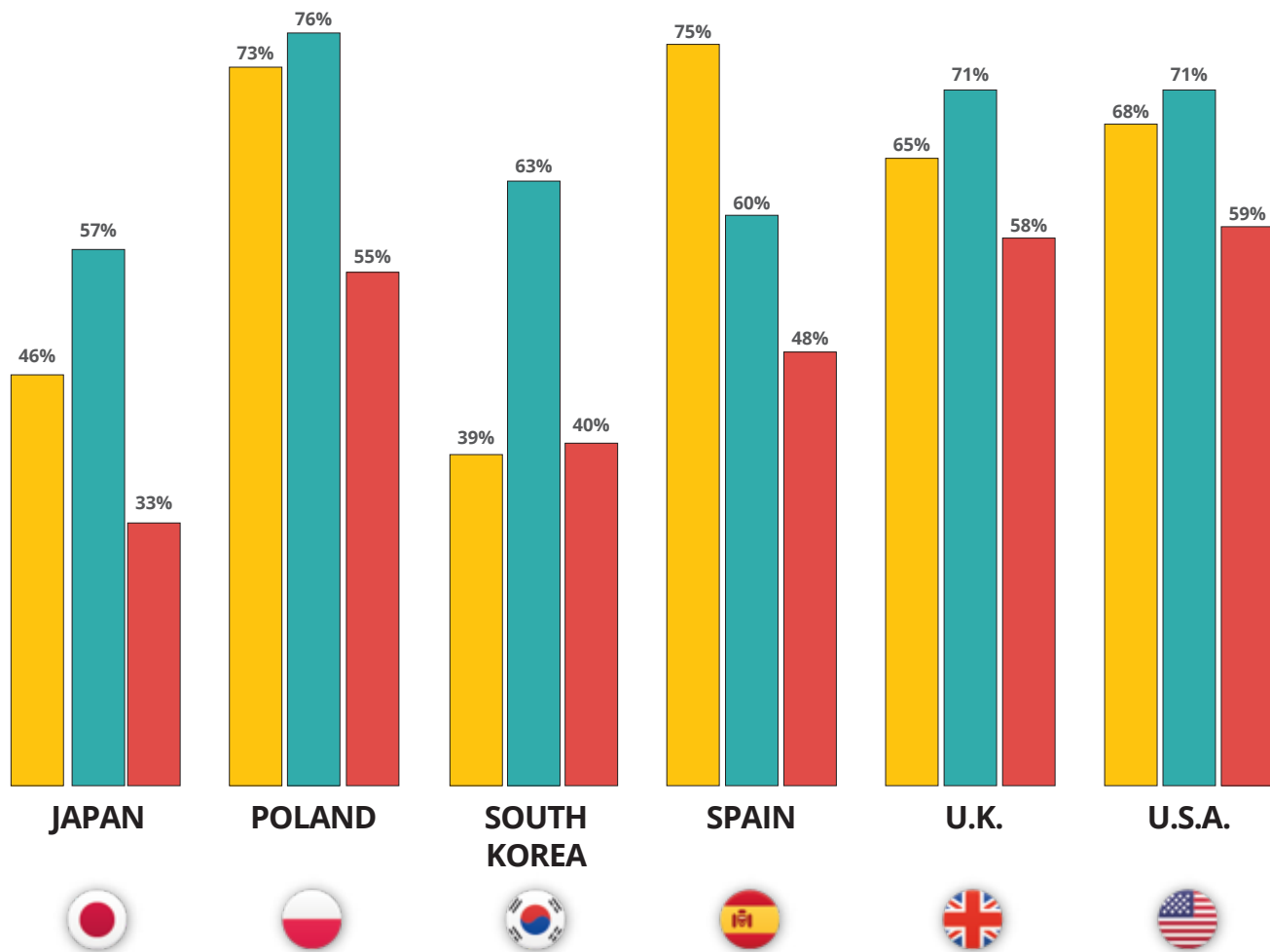
Provides me with a healthy outlet from everyday challenges



Helps me feel happier



Helps me get through difficult times in my life



Globally, players believe that video games improve their creativity, problem solving, cognitive and collaboration skills.

Video games can improve these skills:

CREATIVITY



PROBLEM SOLVING



COGNITIVE SKILLS



TEAMWORK & COLLABORATION



ADAPTABILITY



COMMUNICATION



LANGUAGE



SCIENCE, TECHNOLOGY, ENGINEERING, MATH



CULTURAL AWARENESS



CONFLICT RESOLUTION



INCLUSION



RESILIENCE



The global player community believes that video games bring people together.

Video games can introduce people to new friends and new relationships.

I have had positive experiences meeting people through video games that I otherwise would not have met.

Video games have helped me make lasting memories.

Video games help me stay connected to friends/family.

46%

Video games help me develop deeper relationships with others.

43%

I have met a good friend, spouse or significant other through video games (this could include through multiplayer, forums, chat rooms, meet-ups, guilds, clans, conventions or LAN parties).

42%

Video games strengthen my relationships with friends/family.

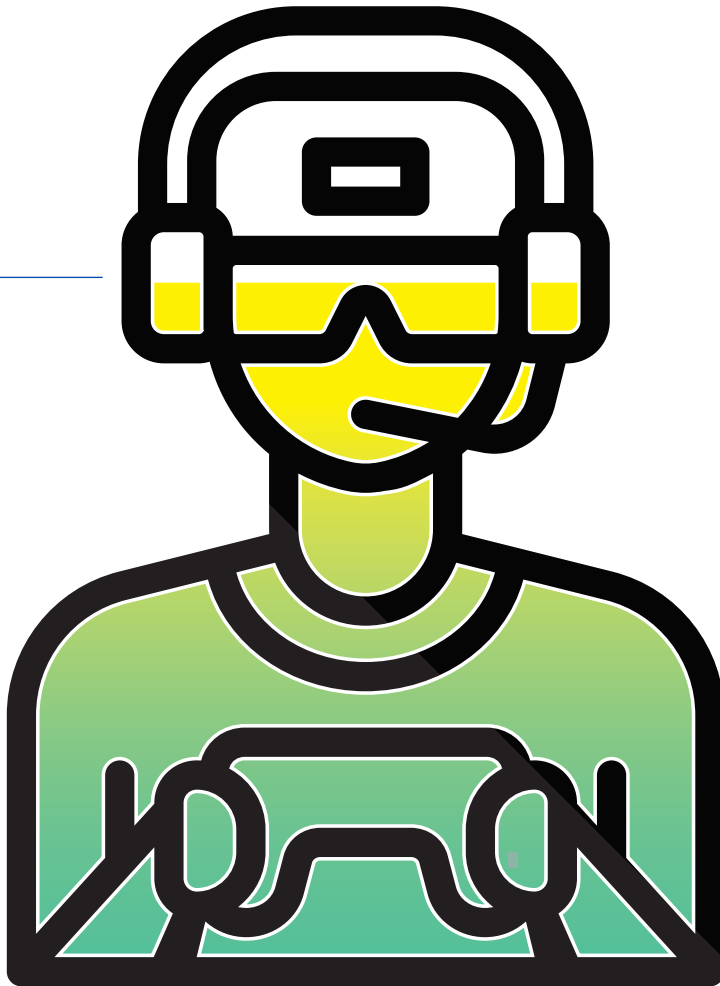
41%

POWER_{OF}PLAY

67%

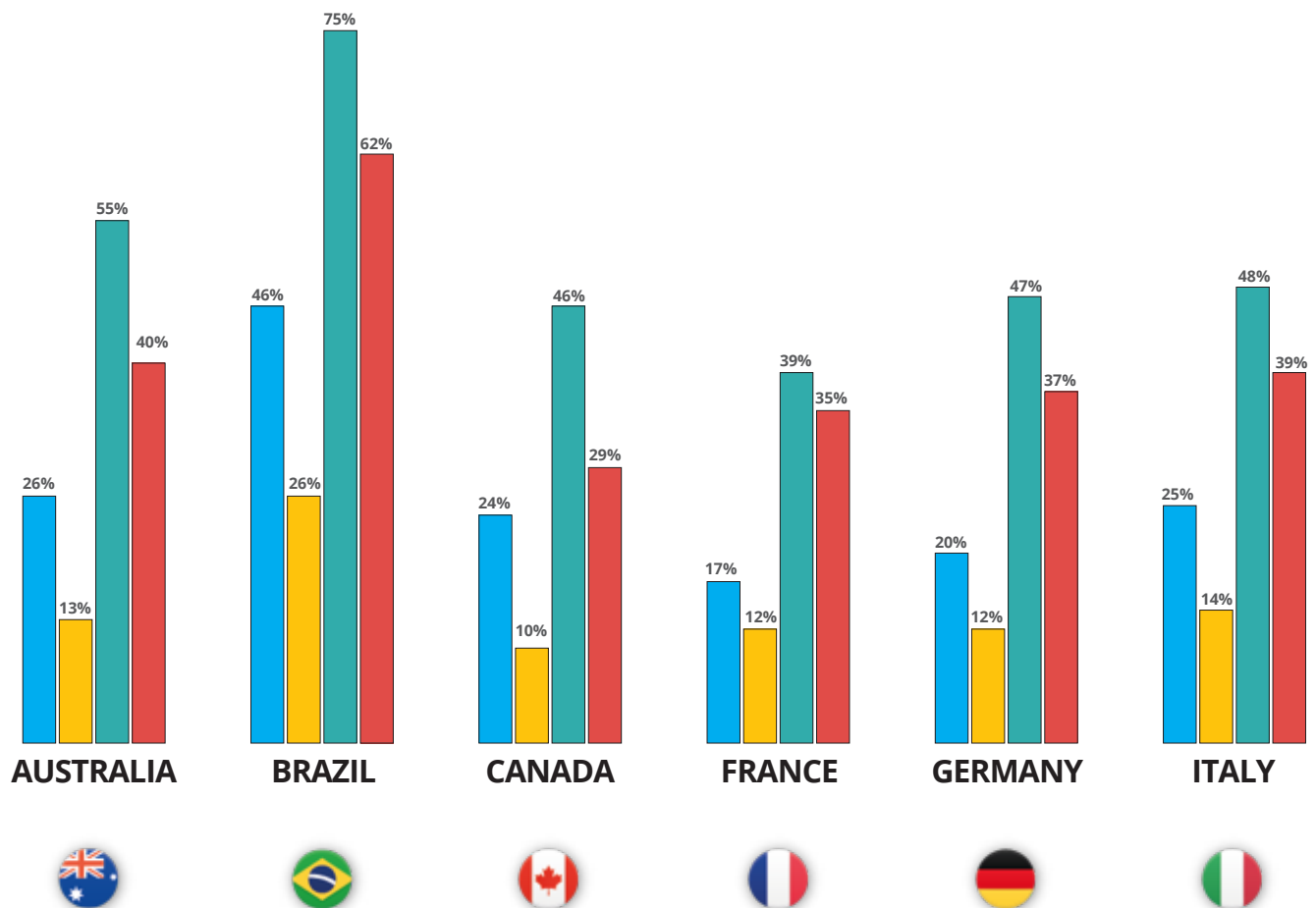
53%

50%



75% of global players agree there is a video game for everyone.

Playing video games is a powerful way to connect with others. Half of global gamers play with others online on a weekly basis and more than a third play with other people in person.



On a daily basis, I play video games:

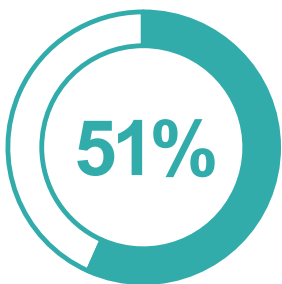


with other people online

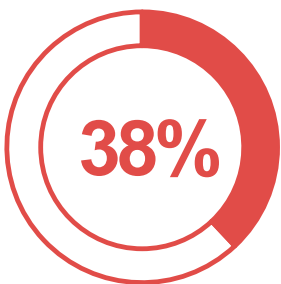


with other people in person

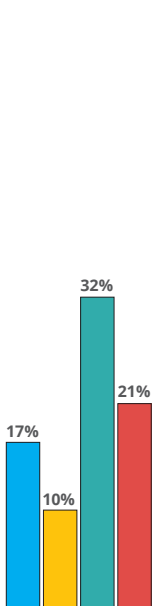
On a weekly basis, I play video games:



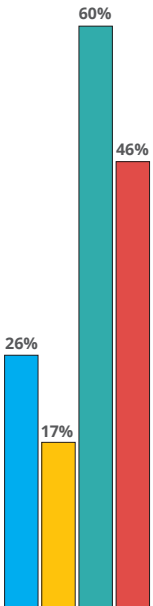
with other people online



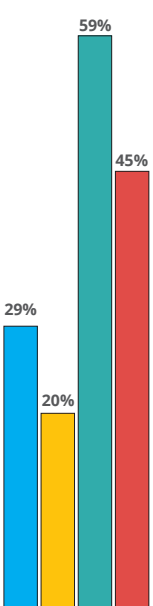
with other people in person



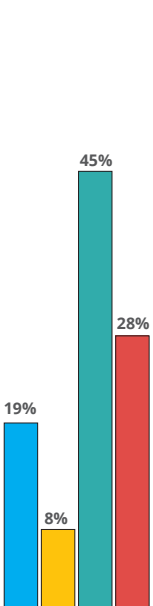
JAPAN



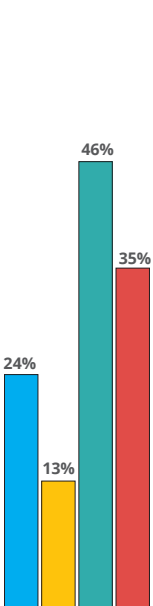
POLAND



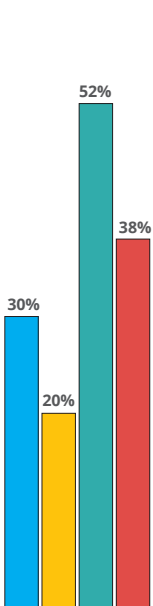
SOUTH
KOREA



SPAIN



U.K.



U.S.A.



GAMES BOLSTER MENTAL HEALTH

As video games become increasingly popular online meeting places, researchers have begun looking at how they impact our mental health.

An Oxford University study in 2022 found that "engaging with arts and culture online can improve mental health in young people," reducing psychological distress despite worldwide social distancing restrictions from the coronavirus pandemic at the time (Sheriff & Vuorre, 2022). That came after a 2020 study in the Journal of Medical Internet Research that found approximately three quarters of participants reported playing video games had been beneficial to their mental health. Citing video games like Pokémon Go, in which players walk around the real world in order to "catch" digital monsters, the researchers wrote, "these games can improve physical and mental health by providing virtual socialization, sustained exercise, temporal routine and mental structure" (Ellis, 2020).

Research surveys have similarly identified video games as helping people lift their moods. A study in the journal Pediatrics found that 10-15 year old children have lower levels of stress when playing video games for less than an hour (Przybylski, 2014). Researchers published similar findings in Cambridge University Press, saying that "Adolescents who spend less time playing sports and active

games may derive more enjoyment and social interaction from playing video games more frequently" (Kandola et. al., 2021).

This is true across age groups, too. A 2020 study published in Digital Games and Mental Health tracked people 55 years of age or older as they played Nintendo's 2006 hit Wii Tennis "exergame" for six weeks, either in single-player or multiplayer mode (Li, 2020). The researchers said their findings suggested "that older adults in multiple-player exergames experienced lower levels of loneliness... when compared to those in single-player exergames."

“*A study in the journal Pediatrics found that 10-15 year old children have lower levels of stress when playing video games for less than an hour.*”

GAMING'S BROADER BENEFITS

Video games have always been associated with storytelling and escapism, but researchers are increasingly finding that games can help bolster key cognitive skills and even slow the effects of memory loss.

One study published in *Nature Human Behavior* in 2022 found that even just a couple hours of gameplay a week can help improve attention control and reading (Bavelier & Pasqualotto, 2022). Researchers at University of Geneva and University of Trento in Italy followed up with their subjects after six months, a year and 18 months, and found that reading comprehension and school grades had risen when compared to non-game-playing students they tracked. "The effects are thus long-term, in line with the action video game strengthening the ability to learn how to learn," the researchers concluded.

“The effects are thus long-term, in line with the action video game strengthening the ability to learn how to learn.”

Another study, also published in 2022 using data from the US Adolescent Brain Cognitive Development survey of 2,217 children, found that kids who play video games displayed higher cognitive performance than those who did not (Bavelier & Pasqualotto, 2022).

It's not just children either. A study from 2013 found that playing Nintendo's puzzle game *Super Mario 64* could have a role in fighting dementia and other similar cognitive declines. That was reinforced by another study in 2016 that followed 2,802 patients, concluding that some specially designed brain training programs can help reduce people's risk for dementia (Edwards, 2017).

Researchers are even exploring how video games can help people suffering from pain and trauma. One study published in *Molecular Psychiatry* in 2017 found that playing a game, like *Tetris*, for 20 minutes could help people ward off disruptive memories (Iyadurai, 2017). Playing video games even helped some children in 2021 and 2022 studies tracking how much pain they felt when receiving an anesthetic injection or receiving treatment in an oncology ward (Bagheri-Nesami, 2022), (Puig, 2020).

“Another study, found that kids who play video games displayed higher cognitive performance than those who did not.”

GAMES BECOMING MORE SOCIAL

Over the years, players have come together in arcades to play a beloved classic, compete against friends on the couch or play head-to-head at a party or over the internet. Many modern games have added hangout "lobbies," movie-going experiences and live music concerts, creating more ways for people to connect.

In 2018, two years before the COVID pandemic, Ryan Perry and a team of researchers (Perry, 2022) recruited more than 2,000 gamers from the online forums of Bungie's online game Destiny and asked them to discuss how often they played the sci-fi shooting title with real-life friends, online-only friends and strangers. The results, published in *Computers in Human Behavior*, found that for many respondents, the game and its online features were an effective way to strengthen existing friendships and build new ones.

"Video games provide a unique environment in which individuals can play with a very wide range of other people with scarcely any boundary including across age, sex, language or location," the study's authors wrote.

This was true in studies published in 2007, before Destiny had come out, when University of Westminster lecturer John

Colwell noted that gamers reported correlations between "stress relief," "fun challenge" and "companionship", which they wrote "have elements of almost like being with a friend" (Colwell, 2007).

***“ Video games provide a unique environment in which individuals can play with a very wide range of other people with scarcely any boundary including across age, sex, language or location.*”**

Perhaps most importantly, researchers found that when people do strike up online friendships, they "are often of excessive quality," according to one study published in 2020 in *Human Behavior and Emerging Technologies* (Zhu, 2020). More than a third of players surveyed said they talk to online friends about problems they would not discuss with offline friends.

Add to all of this that an increasing amount of communication is happening over the internet, and you have another study published in *Theory and Research in Education* in 2009, making the case that it "strengthens the value of virtual worlds in teaching valuable and meaningful skills" (Rigby & Przybylski, 2009).

GAMES HELPING RESEARCH

As researchers continue to study video games, developers are creating ways to help gather data and learn from players. In 2023, researchers at the University of Oxford and Tilburg University collaborated with game developer FuturLab to collect real-time data about how 11,000 people in 39 countries feel while playing the hit Powerwash Simulator.

“Despite widespread worries about the impacts of games on the mental health and wellbeing of players, there is little empirical evidence to support or refute these concerns,” the researchers wrote. “We set out to address those concerns by collaborating with FuturLab to collect real-time in-play data about how people feel when they are gaming, and not sometime after as is usually done in video game research” (Vuorre, 2023).

“Despite widespread worries about the impacts of games on the mental health and wellbeing of players, there is little empirical evidence to support or refute these concerns.”

REFERENCES

- Bagheri-Nesami, M. (2022, February).
[The effect of video games on the behavioral response and self-assessment of pain prior to inferior alveolar nerve block administration in children.](#)
International Journal of Pediatrics.
- Bavelier, D., & Pasqualotto, A. (2022, January 14).
[Improving reading skills through action video games.](#)
Université de Genève.
- Chaarani, B. (2022, October 24).
[Association of Video Gaming With Cognitive Performance Among Children.](#)
Jama Network.
- Colwell, J. (2007, December).
[Needs met through computer game play among adolescents.](#)
Personality and Individual Differences.
- Edwards, J. (2017, November 7).
[Speed of processing training results in lower risk of dementia.](#)
National Library of Medicine.
- Ellis, L. A. (2020, December 22).
[COVID-19 as 'Game Changer' for the Physical Activity and Mental Well-Being of Augmented Reality Game Players During the Pandemic: Mixed Methods Survey Study.](#)
Journal of Medical Internet Research.
- Iyadurai, L. (2017, March 28).
[Preventing intrusive memories after trauma via a brief intervention involving Tetris computer game play in the emergency department: a proof-of-concept randomized controlled trial.](#)
Molecular Psychiatry.
- Kandola, A., N. Owen, D. W. Dunstan and M. Hallgren (2021, February 19).
[Prospective relationships of adolescents' screen-based sedentary behaviour with depressive symptoms: the Millennium Cohort Study.](#)
Cambridge University Press.
- Li, J. (2020, October 5).
[Play Mode Effect of Exergames on Subthreshold Depression Older Adults: A Randomized Pilot Trial.](#)
Frontiers in Psychology.
- Perry, R. (2022, October 2).
[Online-only friends, real-life friends or strangers? Differential associations with passion and social capital in video game play.](#)
Computers in Human Behavior.
- Przybylski, A. K. (2014, August 4).
[Electronic gaming and psychosocial adjustment.](#)
Pediatrics.
- Puig, A. M. (2020, March 30).
[The Association Between Pain Relief Using Video Games and an Increase in Vagal Tone in Children With Cancer: Analytic Observational Study With a Quasi-Experimental Pre/Posttest Methodology.](#)
Journal of Medical Internet Research.
- Rigby, C. S., & Przybylski, A. (2009, June 30).
[Virtual worlds and the learner hero - How today's video games can inform tomorrow's digital learning environments.](#)
Theory and Research in Education.
- Sheriff, R., & Vuorre, M. (2022, Sept 8).
[A co-produced online cultural experience compared to a typical museum website for mental health in people aged 16–24: A proof-of-principle randomised controlled trial.](#)
Australian & New Zealand Journal of Psychiatry.
- Vuorre, M. (2023, June 2).
[An intensive longitudinal dataset of video game play, well-being, and motivations: Case study of PowerWash Simulator.](#)
(Preprint) PsyArXiv.
- Zhu, L. (2020, September 9).
[The psychology behind video games during COVID-19 pandemic: A case study of Animal Crossing: New Horizons.](#)
Human Behavior and Emerging Technologies.

PARTICIPATING ASSOCIATIONS



**ENTERTAINMENT
SOFTWARE**
ASSOCIATION OF CANADA



ASSOCIATION CANADIENNE DU
**LOGICIEL DE
DIVERTISSEMENT**

IGEA
interactive games & entertainment association

KGAMES
한국게임산업협회 Korea Association
of Game Industry

VIDEOGAMES EUROPE 

game
The German Games
Industry Association

IDEA
Italian Interactive Digital Entertainment Association

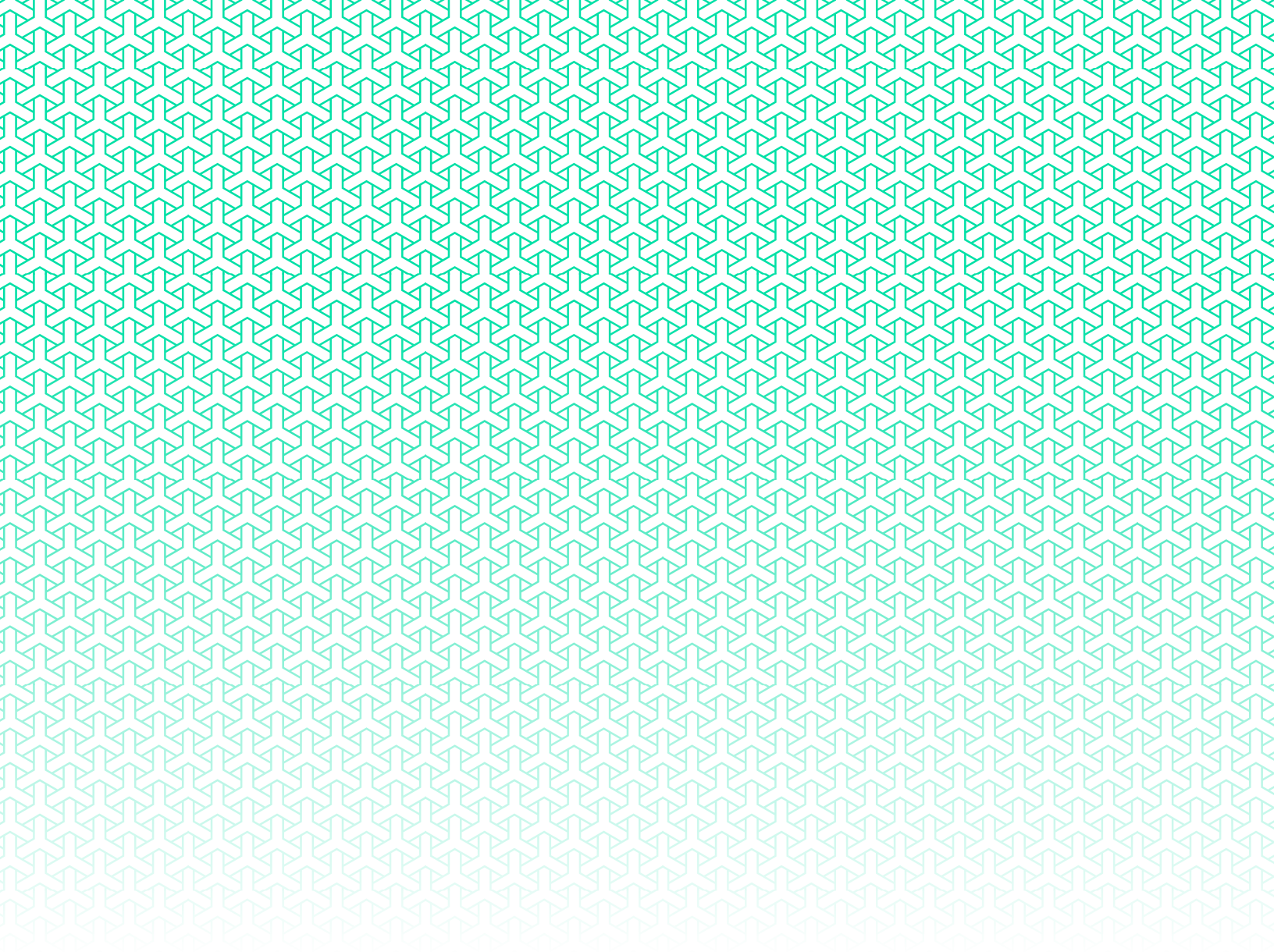
SEI
SYNDICAT
DES EDITEURS
DE LOGICIELS
DE LOISIRS

SPIDOR

ukie

GLOBAL RESEARCH PARTNER

AudienceNet conducted an interactive online survey of 12,847 respondents in 12 countries. In each country, respondents were recruited via a screening survey sent out in accordance with quota samples that were statistically and demographically representative of the respective 16 year+ online populations. The screening questions ensured that, in each country, there was a final sample of 1,000+ active gamers, all of whom played video games for at least an hour per week. All survey respondents were accessed through professionally accredited consumer research panels. AudienceNet is a fully-accredited global consumer research company, currently conducting nationally representative research in 52 countries. As a Market Research Society (MRS) Company Partner, AudienceNet is bound by the MRS Code Of Conduct, as well as GDPR in relation to the collection and handling of consumer research data.



© 2023 Entertainment Software Association