

The Impact of Social Activities in Video Games on Real-Life Socialisation and Mental Health

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Abstract: The impact of video game social activities on audiences has become a hot social concern. While some studies highlight their negative effects on adolescents' mental health, the influence on real-life social behaviors has been overlooked, with past research often suffering from short research durations and outdated contexts. This study uses questionnaire surveys, SPSS correlation analysis, and literature reviews to explore the effects of in-game social interactions (e.g., teamwork, voice communication, virtual community participation) on individual behavior and psychology. It finds these activities significantly boost real-life social competence and promote psychological health. The findings bridge theoretical gaps in game social interaction research, offering practical insights for optimizing game design, formulating educational interventions, and managing players' mental health, thus aiding the construction of a healthy digital social ecology.

1 INTRODUCTION

1.1 Background to the Study

With digital technology deeply penetrating social life, video games have evolved from a single entertainment medium to a complex ecosystem with social attributes. According to the 2024 China Game Industry Report, the number of game users in China has exceeded 680 million, and the proportion of game hours driven by social functions has reached 42%. As an active gaming culture region, the average daily social gaming time of young people in Southwest China is as high as 3.1 hours, far exceeding the national average (CNNIC, 2025). This virtual social practice has not only reconfigured the traditional social model, but also triggered widespread social controversy over its mental health impact. For example, competitive games such as League of Legends cultivate social skills through teamwork, but over-indulgence may lead to social alienation in reality; role-playing games such as World of Warcraft promote deep interaction, but there is a risk of confusing virtual identity with the real self. These phenomena highlight that the dual influence of social activities in video games on individual behaviour and psychology needs to be explored in depth.

1.2 Significance of the Study

The significance of this study is to delve into the impact of social activities in video games on real-life social behaviour and mental health. By answering specific questions about how social activities in video games specifically affect players' social behaviours in reality, whether these activities have a positive or negative impact on mental health, and how different types of video games, as well as player characteristics (e.g., age, gender, consumption behaviours, etc.), differ in these effects.

This study aims to fill a gap in the current literature and provide valuable insights for game designers, educators, and players. The findings not merely augment the theoretical edifice of game studies but also proffer actionable insights for fostering salutary video gaming practices and enhancing societal well-being. In addition, this study also intends to reveal the potential interactive effects between video game social activities and real-life social behaviours, contributing to a deeper understanding of the complex relationship between video games and mental health.

1.3 Research Issues

In order to delve deeper into the impact of social activities in video games on real-life socialisation and mental health, this study asks the following specific questions:

How do social activities in video games specifically affect the real-life social behaviour of their audiences?

Are there adverse or good effects of socialisation in video games on the mental health of the audience?

2 LITERATURE REVIEW

Since the influence of video games has expanded, numerous scholars have conducted research on the impact of video games on audience psychology and the impact of video games on intimate relationships. In the context of Chinese dissertations, scholars have predominantly adopted diverse methodologies to explore the influence of video games on various aspects of players. Of these, the questionnaire method has been particularly prevalent due to its efficiency and quantitative advantages. For instance, Zhang et al. (2023) collected data from 678 college students by formulating a questionnaire and precisely analysed the quantitative relationship between exposure to violent video games and interpersonal communication and psychological health. The employment of in-depth interviews has yielded rich qualitative insights, contributing to a more comprehensive understanding of the subject matter. Moreover, the experimental method was employed for context-specific studies. Chen Yuan (2021) effectively verified the role of enhancing self-esteem and self-identity in reducing video game addictive behaviors among middle school students through a research design incorporating experimental and control groups in self-esteem-themed group counselling. The content analysis method plays a pivotal role in exploring the relationship between game content and player behavior. Zhou Yan (2019) explored the influence of social motivation on players' gaming behaviour through the meticulous analysis of game content, combined with player feedback. The views of Chinese scholars can be broadly divided into the following two points:

The impact of video game social activities on the real-life social skills of the audience has been a subject of much debate. Bian, Qing, and Xia, Shixin (2024) have demonstrated that 'toxic behaviours', such as in-game bullying, pranks, deception, verbal abuse, and other interactive behaviours that cause

discomfort to those who are subjected to them, are prevalent in video game co-playing scenarios. These behaviours have been shown to directly trigger negative emotional experiences (game pain), and also lead to structural ruptures in interpersonal relationships by destroying social trust mechanisms, forming a game social model with alienating characteristics. Guo Ruiman et al. (2023) have asserted that online games have the potential to induce dependency in players, thereby impacting their real-life social behaviours. This may manifest in reduced communication with classmates and participation in collective activities, ultimately contributing to a deterioration in interpersonal relationships.

Video game socialisation has a twofold effect on the mental health of the audience. Regarding the negative impact, Zhang Shichang et al. (2023) noted that violent video game exposure had a direct negative impact on college students' interpersonal communication skills, with mental health playing a partially mediating role. Chen Yuan (2021) also found that a certain percentage of middle school students survived video game addictive behaviours, and that self-esteem and self-identity had a significant negative effect on addictive behaviours. Li Jiaojiao (2021) pointed out that adolescent online game addiction has become a mental health problem of world concern, and when adolescents are unable to meet their social needs in reality, they often turn to online games to seek care and support, which may lead to game addiction.

With regard to positive impacts, Sun Hao et al. (2023) pointed out that e-sports viewing behaviour (the behaviour of participating in e-sports activities by watching e-sports events, live broadcasts, etc., and interacting with anchors or other viewers in real-time or non-real-time through pop-up interactions, social exchanges, etc., in order to gain entertainment experience, social satisfaction or improve relevant skills) has a positive effects, and esports viewing behaviour can indirectly promote mental health by promoting social adaptation. Through a survey of 383 Chinese university students, Tang Lin (2024) found that co-operative interactions were negatively associated with gaming addiction and that group solidarity mediated the relationship between social interactions to gaming addiction, suggesting that appropriate social interactions and group solidarity can reduce the negative effects of gaming addiction on mental health.

With regard to foreign studies, the study by Bhagat et al. (2019) utilised cross-sectional questionnaires and statistical analyses to explore the

relationship between online social needs, interpersonal competence, and gaming addiction (Bhagat et al., 2019). The research methods employed included a pre- and post-test experimental design (Li et al., 2013), latent category analysis (Michelle Colder Carras et al., 2016), a literature review (Muhannad Quwaider et al., 2019), and linear regression. A comparison of the results of Chinese research with those of foreign research on the impact of video game social activities reveals that the former is more in-depth. Foreign research includes studies of the specific manifestations of the impact of video game social activities on the audience, as well as the way in which video game social activities affect the audience. The extant literature on this topic can be broadly categorised into two distinct points of view.

Video game social activities enhance audience's real-life social competence by enhancing teamwork skills and fostering instant communication skills.

For example, Ryan Perry et al. (2018) found that social interactions in online multiplayer video games, such as playing with real-life friends, online-only friends, and strangers, promote social capital building and enhance teamwork skills. Online role-playing games (RPGs) and massively multiplayer online games (MMOs) are typical examples of this. David et al. (2020) highlighted that online games provide players with opportunities to interact with others, promoting co-operation and social support, which enhances real-life communication skills.

Secondly, video game socialisation has been demonstrated to engender heightened psychological stress and anxiety (Jones et al., 2020). However, the social features of video games have been shown to have a mitigating effect on loneliness and to enhance social support among their users (Smith et al., 2021).

Michelle Colder Carras et al. (2017) found that excessive gaming and problematic gaming symptoms were associated with increased depressive symptoms and social anxiety in adolescents. Conversely, Li et al. (2013) reported that online social network-based video games were effective in increasing mental health literacy and providing emotional support to reduce loneliness.

Despite the existence of a substantial corpus of academic research, the extant literature is subject to a number of limitations. These limitations can be enumerated as follows:

Firstly, the samples were not sufficiently representative. A preponderance of Chinese and international studies is afflicted by diminutive sample sizes and homogenous groups (e.g., specific ages, game types, or cultural backgrounds), which compromise the generalisability of the findings.

The study's methodological framework exhibits several shortcomings, including an overreliance on cross-sectional designs and self-reported data. Additionally, there is a lack of causal validation, stemming from the amalgamation of mixed-methods (quantitative and qualitative) approaches. This integration gives rise to conclusions that are potentially one-sided and susceptible to bias.

In the context of the temporal dimension, the prevailing nature of studies is that of a relatively brief duration, thereby resulting in a paucity of long-term follow-up. Consequently, the dynamic relationship between gaming behaviours and mental health, as well as the long-term effects thereof, remains challenging to reveal.

This study adopts a multi-method approach, incorporating a questionnaire survey, SPSS correlation analysis and a literature review. This strategy is employed to address the limitations of previous studies, which were hindered by small sample sizes and insufficient universality. The combination of diverse methods is intended to prevent one-sided conclusions, while the integration of previous studies' results with current data aims to extend the study's time span, thereby enhancing the study's credibility.

3 ANALYSIS OF QUESTIONNAIRES

3.1 Descriptive Statistical Analyses

As demonstrated in Table 1, the sample comprised 406 respondents, of which 217 (53.4 per cent) were male and 191 (47.0 per cent) were female. This finding suggests a marginal overrepresentation of males within the survey sample compared to females. The age classes of the surveyed groups were distributed evenly, with a relatively large number of respondents aged 35-44, constituting 133 or 32.6 per cent of the total. The distribution of the sample size across all age groups was found to be uniform, with a notable predominance of individuals in the middle-aged category (35-44 years old). Among the respondents, 91 were students by occupation, accounting for 22.3 per cent of the total. Furthermore, 142 individuals, constituting 34.8 per cent of the total, were office workers, while 111 people, amounting to 27.2 per cent of the total, were freelancers, with no fixed place or time of work. This distribution is logical, considering that office workers and

freelancers have more flexible gaming schedules compared to students.

With regard to gaming behaviour, 63.72% of players engage in gameplay for a duration exceeding five hours on a weekly basis. The genres of MMORPG (59.31%) and FPS (54.66%) demonstrate the highest levels of popularity. With regard to game social participation, 56.62% of players allocate 1-3 hours per day to social activities such as team and guild participation, primarily through team battles (57.6%) and chat channels (49.02%). Concerning the impact of real-life social interaction, 63.73% of players believe that game social interaction has expanded their real-life social circle, 56.62% of players have increased the frequency of real-life active communication, and 68.3% of those who have

a happy mood in game social interaction have shown higher motivation for real-life communication. At the psychological level, 56.62% of the players reported positive emotions during game socialisation, and 56.37% indicated an increase in self-confidence. With regard to intervention measures, 71.57% expressed support for schools to implement relevant educational programmes, and 58.58% advocated for game manufacturers to enhance social environment oversight. The results of the study indicate a positive trend in the expansion of real-life social interaction, the enhancement of emotions, and the enhancement of self-confidence, and a higher level of acceptance among young and middle-aged groups. The distribution of data is illustrated in Table 1.

Table 1. Frequency analysis results.

Name of the issue	options	frequency	percentages (%)	Cumulative percentage (%)
What is your gender?	male	217	53.19	53.19
	female	191	46.81	100.00
	Under 18	69	16.91	16.91
What is your age range?	18-24 years	97	23.77	40.69
	25-34 years	109	26.72	67.40
	35-44 years	133	32.60	100.00
	schoolchildren	91	22.30	22.30
What is your current status?	office workers (as social group)	142	34.80	57.11
	self-employed	111	27.21	84.31
	other	64	15.69	100.00
	significant expansion	153	37.50	37.50
How do you think video game socialising affects your real-life social circle?	expanding	107	26.23	63.73
	no change	72	17.65	81.37
	narrow	42	10.29	91.67
	significant narrowing	34	8.33	100.00
Have you expanded your real-life social activities (e.g., offline gatherings, participating in other activities together, etc.) because of	Regularly	157	38.48	38.48
	once in a while	113	27.70	66.18
	rarely will	73	17.89	84.07
	never	65	15.93	100.00

the friends you've made through gaming social activities?				
	increase significantly	96	23.53	23.53
How often do you initiate communication with people in real social situations compared to before engaging in game socialisation:	slight increase	135	33.09	56.62
	basically unchanged	133	32.60	89.22
	Slight decrease	38	9.31	98.53
	substantial reduction	6	1.47	100.00
	Helps a lot, it's easier to build trust	86	21.08	21.08
	Some help, a little boost	141	34.56	55.64
How do you feel that participating in gaming social activities has affected your ability to build trusting relationships with others in real life?	It doesn't matter.	129	31.62	87.25
	There's a little bit of an obstacle. It's a little bit harder to build trust.	45	11.03	98.28
	It's harder to build trust when there are more obstacles	7	1.72	100.00
	It's a big boost.			
	Makes me feel more confident.	80	19.61	19.61
How do you feel that participating in playful socialising has impacted on your self-confidence?	There's been some improvement, feeling a little more confident	150	36.76	56.37
	It doesn't matter.	133	32.60	88.97
	It's a bit of a shock.			
	My self-confidence has dropped a bit.	42	10.29	99.26
	It's a big blow. My self-confidence has dropped significantly.	3	0.74	100.00
add up the total		408	100.0	100.0

3.2 Linear Regression Analysis

The present study employs linear regression analysis to investigate the influence of video game social activities on real-life social circles. As demonstrated in Table 2, the overall model fitting effect is significant ($F(2,405)=272.397$, $p=0.000$), with an R^2 of 0.574 and an adjusted R^2 of 0.571, indicating that

the model can explain approximately 57.1% of the variance of the dependent variable. The D-W value of 2.000 verifies that there is no autocorrelation of the residuals and that the model assumptions are well-fitted.

Table 2 Linear regression analysis results

	Unstandardised coefficient	Standard error (midpoint)	Standardised coefficient <i>Beta</i>	<i>t</i>	<i>p</i>	Covariance Diagnostics	
	<i>B</i>					VIF	tolerance level
a constant	-0.510	0.126	-	-4.035	0.000**	-	-
During your participation in a video game social event, your mood is usually:	0.539	0.049	0.398	10.995	0.000**	1.244	0.804
How often do you initiate communication with people in real social situations compared to before engaging in game socialisation:	0.643	0.047	0.492	13.586	0.000**	1.244	0.804
R^2			0.574				
Adjustment R^2			0.571				
<i>F</i>			$F(2,405)=272.397, p=0.000$				
D-W value			2.000				

Note: Dependent variable = 6. How do you think video game social activities affect your real-life social circle?

* $p < 0.05$ ** $p < 0.01$

The findings of the linear regression analysis demonstrated that 'mood during participation in video game social activities' exhibited a significant positive effect on the impact of video game social activities on real social circles, with an unstandardised coefficient $B=0.539$ ($p < 0.01$). This suggests that the more positive the mood (e.g., 'very pleasant and relaxing', 'more pleasant and stress-relieving') experienced by players during game socialising, the more likely they are to be driven by positive moods and to be more proactive in establishing social relationships within the game. The hypothesis is that the stronger the positive mood (e.g., 'very pleasant, relaxing,' 'more pleasant, can relieve stress'), the more likely they are to be driven by positive emotions and more actively establish social relationships within the game. It is predicted that this positive interaction experience will be extended to real-life scenarios, thus reinforcing the recognition that 'game socialisation expands the social circle in reality.

The frequency of active communication in real social situations in comparison to before participation in game socialisation exerts a significant positive effect on the dependent variable, with an unstandardised coefficient of $B=0.643$ ($p < 0.01$) and a standardised coefficient of $\beta=0.492$. This suggests that an increase in game socialisation is directly proportional to the frequency of active

communication, thereby reflecting the transfer value of game socialisation on real social skills. Players engage in game socialisation, thereby practising their communication skills and directly promoting the activation and expansion of their real social circle. It can thus be concluded that an increase in the frequency of active communication in reality is indicative of the transfer value of game social interaction on real social skills. Players are able to exercise their communication skills and develop active communication habits through game social interaction, which directly promotes the activity and expansion of the real social circle.

The analysis of the covariance diagnostic indicated that the independent variable VIF value was 1.244 with a tolerance of 0.804, indicating the absence of any substantial covariance problem and the reliability of the regression results. Furthermore, the model $R^2=0.574$, adjusted $R^2=0.571$, $F(2,405)=272.397$ ($p=0.000$), indicating that the model's explanatory power on the dependent variable is 57.1% and is statistically significant. In conclusion, game social mood and real social active communication frequency are important positive predictors of the influence of video game social activities on real social circles. Furthermore, the explanatory power and stability of the model on the relationship between the variables are satisfactory.

4 SUMMARY OF KEY FINDINGS OF THE STUDY

4.1 Impact of Video Game Socialisation on Real-Life Socialisation

The descriptive statistical analysis revealed that over 70% of the surveyed players reported an increase in the frequency of initiating social activities in real life after socialising in video games (specifically in offline gatherings, dining and other social occasions, for example). This finding contradicts the results of previous studies, which suggested that video game social interaction mainly affects real-life social behaviours indirectly through emotion regulation. Instead, the present study suggests that social activities in video games tend to affect real-life social behaviours indirectly by enhancing individuals' real-life skills (e.g. communication skills, initiative, etc.).

Moderate social activities in video games have been found to have a positive effect on the mental health of the audience. The survey responses pertaining to the impact of game socialisation on mental health further substantiate this finding. When queried about their feelings regarding stress relief and enjoyment while playing the game, 57% of respondents expressed affirmative sentiments. This suggests that a significant proportion of players experience emotional relaxation and stress relief during gameplay. Concurrently, 58% of respondents indicated affirmation to the question 'Do you think your self-confidence has been improved?', thereby suggesting that game social activities have a favourable effect on the enhancement of players' self-confidence. The findings of this study indicate that moderate participation in video game social activities can improve the audience's mental health by relieving psychological pressure and enhancing individual self-confidence, thereby exerting a positive and beneficial impact on people's psychological state.

4.2 Comparison of Research Findings and Existing Studies

A total of seven articles relevant to the subject were reviewed, of which Mogea et al. used a questionnaire (Self-Report Surveys) to collect data covering 135 subjects. By designing satisfaction scales and mood measurement tools (e.g. anxiety and depression indicators), they analysed the relationship between video game addiction and mental health. Furthermore, Mogea et al. explored the potential mitigating effect of offline social support on this relationship. In contrast, Bhagat, S., and JeongE. J., & Kim, D. J.'s study

utilised cross-sectional questionnaires and statistical analyses to explore the relationship between online social demands, interpersonal competence and gaming addiction.

Other research methods employed include pre- and post-test experimental design, latent category analysis, and literature reviews, and linear regression. This study incorporated a questionnaire to collect data, under the premise of using the literature review method, which seeks to compensate for the lack of qualitative analysis in the literature review, enhance the scientific and credibility of the conclusions, and discover the relationships of the variables that have not been sufficiently focused on in previous studies in the literature, by using the questionnaire and quantitative analysis as a quantitative method of analysis.

4.3 Components Supporting Existing Research

The findings of this paper demonstrate partial congruence with those of extant studies, such as the proposition that the frequency of co-operative play with a partner exerts a significant positive effect on the quality of intimacy. The enhancement of real-life emotional connection through co-operative gaming is evidenced by an increase in the quality of interaction and joint leisure time.

In addition, other scholars have argued that video game socialisation has broken through virtual boundaries and become an extension of real socialisation. For instance, players may cultivate authentic social relationships offline after establishing friendships through gaming. Furthermore, the development of collaborative skills in players through teamwork in games (e.g., guild missions) can be transferred to real-life scenarios.

While not explicitly argued, other studies have implied a potential positive real-life influence by emphasising the social functions of games (e.g., cooperation, identity).

5 SIGNIFICANCE OF THE FINDINGS

5.1 The Potential Educational and Social Value of Video Game Socialisation

The results of this study demonstrate the educational and social values of video game socialising activities.

In terms of educational value, in the global internationalisation genre of games, conducting video game socialisation is conducive to players' understanding of the culture and customs of other regions and cross-cultural communication. It also serves to exercise players' language expression skills and vocabulary in foreign languages.

In terms of social value, the potential for socialising in video games to transcend geographical limitations is noteworthy, fostering connections with individuals worldwide who share common interests and thereby enriching the social experience. Furthermore, game socialisation functions as a medium for emotional release, offering players a supportive and encouraging environment within the virtual realm that serves to alleviate real-life pressures.

5.2 Implications for Individual Development

In the context of social groups that encounter significant barriers to social integration, the utilisation of video game-based socialisation has been identified as a facilitator for the gradual adaptation to social life.

In the case of individuals, game socialisation has been shown to enhance communication skills, including the ability to articulate one's position, status and needs with clarity. Furthermore, it has been demonstrated that game socialisation can enhance an individual's capacity for emotion management, thereby facilitating the maintenance of composure in the face of challenges and frustrations encountered in real-life scenarios.

5.3 Recommendations for Game Developers

In this respect, game developers should take measures to enhance the management of in-game socialising, expeditiously remove inappropriate words and actions, optimise the functionality of voice and text chat to ensure seamless communication, and establish the foundations for players to socialise within the context of video games.

5.4 Implications for Society

It is imperative to elevate the societal discourse concerning the socialisation of young individuals in the digital landscape, with a particular emphasis on incorporating a segment that explores the role and repercussions of online socialisation within

educational contexts. Teachers' capacity building should be strengthened, with a focus on improving their ability to observe social gaming behaviours, to help them identify whether students are addicted to the Internet.

The promotion of the construction of parent-child game rooms, the selection of cooperative games suitable for the whole family, and the cultivation of children's social skills through video game social activities are also recommended.

6 RESEARCH LIMITATIONS

Despite the collection of 406 data points, which served to compensate for the shortcoming of the preceding study's lack of extensive geographical coverage, the data sources from western China were comparatively limited. Consequently, there may be a certain deficiency in the representativeness of the data.

In terms of the impact of video game social behaviours on audience real social behaviours and mental health, further research is needed to investigate the specific influencing factors, such as whether different age classes are affected by video game social behaviours in different ways. Furthermore, it is crucial to ascertain whether the family structure of the audience exerts an influence on the effect of video game social behaviour.

7 CONCLUSION

Today, as video games have evolved from a single entertainment medium to a complex ecosystem with social attributes, in order to explore the impact of social activities in video games on real social behavior and mental health, this paper uses questionnaire survey, literature review, SPSS correlation analysis and other methods. This study confirmed that the video game social activities have both educational and social values. It can not only improve the players' foreign language ability and promote multicultural cognition through cross-cultural interaction, but also break through regional restrictions to build a global social network, providing emotional support and pressure relief channels for players. This study enlightens that individuals can improve their communication ability and emotional management ability through game social interaction, and provide social adaptation path for social disorder groups. It is suggested that game developers optimize social function management, and

call on the society to pay attention to young people's online social education. The significance of this study is to fill in the relevant theoretical gaps, provide cross field practical guidance for game design optimization, education intervention strategies and player mental health management, and help understand the interaction mechanism of digital social ecology and social adaptation.

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