

# A Game of Friends

## *Why do we role-play? A case study into Dungeons and Dragons*

Mees Gelein, Jordy van Miltenburg

Project paper for the course “Social Technologies”

Media Technology MSc program, Leiden University, The Netherlands

[www.mediatechnology.leiden.edu](http://www.mediatechnology.leiden.edu)

July 2019

**Abstract**— Over the past decades the usefulness of role-play in education and therapeutic settings has been shown. In this research we show that even role-playing games that were not meant to be educational or therapeutic can have positive side effects on the players. Through a case-study of a body of Dungeons and Dragons (D&D) players (n=930) on Reddit we found that only a minority seems to gain nothing but friends and some fun from the activity, while most describe gaining useful skills for their real life and some even mention the therapeutic effects the game has had on their personal life. These results support the use of D&D as a so called social technology, meant to help us in our complex modern society.

## I. Introduction

All over the world groups of friends, or even complete strangers, meet weekly, biweekly or monthly to play their regular game of Dungeons and Dragons (D&D). One of the authors of this paper is part of such a group as their so called Dungeon Master (DM), their guide through the world of cooperative storytelling. As the DM he saw the social power of D&D and decided this would be an interesting avenue of research. Why do we roleplay?

### A. What are role-playing games

According to the definition of the online Merriam-Webster dictionary, role-playing is ‘acting out a role’. It is therefore logical that role-playing games are a game in which you act out a specific role. However, role-playing games are more than just theatre. They are also a combination of fantasy literature and wargames [1]. The origin of most, if not all,

role-playing games can be traced to the early wargames, developed in Prussia to teach battle strategies to their officers in the army [2]. This origin explains the mathematical, strategic and simulationist parts of these games. The use of dice for this type of game can be traced straight back to the earliest variants of these wargames. Many of today's role-playing games use the computer to simulate these dice-rolls but the tactics and the role-play remain at the heart of the genre.

### B. What is Dungeons and Dragons

When these wargames were mixed with fantasy literature, most importantly Tolkien, in the second half of the 20th century we see the birth of Dungeons and Dragons, created by Gary Gygax.<sup>1</sup> The influence of this game can be felt all throughout popular media today, from gaming to tv-shows [2]. We chose to use D&D as our case study, since it can be considered to be one of the, if not *the*, quintessential role-playing games.

D&D is part of a subgenre of role-playing games known as tabletop role-playing games (TTRPG's), these games are played, as the name predicts, at the table and with a group of friends present. Another reason to focus on D&D for our research was this easily visible social component, something that would be harder to find in more modern computer role-playing games<sup>2</sup>.

---

<sup>1</sup> In 1974 to be exact. For more information on the origin of Dungeons and Dragons we can heartily recommend Ewalt's book, which can be found in the references.

<sup>2</sup> There are of course multiplayer online role-playing games. However, since our own observations had already shown D&D to be a good

### C. Current State of Research

Role-play has been used for therapeutic or educational purposes for decades. The act of storytelling itself, which lies at the heart of role-play, can be just as powerful a method of convincing people [3]. Even way back in the 60's role-play helped people quit smoking [4], with a followup study showing that even after a couple of years the relapse in the group was significantly lower than those who had followed conventional therapy [5]. A more recent study has shown the effectiveness of role-play in education, specifically in history classes [6]. All this research shows how effective this simple act can be in modifying our behaviour, which leads us to question if this also happens in 'normal' role-playing games. Could it be that these games help us function in society by helping us learn about ourselves and others and make us experience novel situations in a safe environment?

Social behaviours or technologies, according to Dunbar, Gamble and Gowlett [7], should help us function in our modern society. We hypothesize that while the specific benefits for playing D&D might be very personal and unique, overall the game increases the player's social fitness. This increase might be explained in several ways, such as, for example, increased social- and/or group management skills, increased confidence, or knowledge of self and others.

Some of these skills have already been linked successfully to storytelling [7]. The complex process of storytelling seems to be fundamental to our modern society and religion. For such a complex process to stay relevant in our society, it must have clear evolutionary advantages since it requires tremendous brain power to keep track of all these characters, myths and legends<sup>3</sup>. At the same time these characters allow us to live and experience things through the eyes of someone else, which helps us learn through transmission instead of just via experience.

---

candidate for research with a lively and responsive internet community, we decided to go for that.

<sup>3</sup>This so-called fifth order intentionality seems to be unique to us humans and is necessary for us to play such a thing as role-playing games.

## II. Methods

In this section, we will discuss the methods we have used to answer our research question, as well as review our data sources and code we have used to answer our research question.

### A. The Questionnaire

To understand why people play TTRPG's, or D&D to be more specific, we decided that a survey would be the best fit. Since we wanted a large response and we had limited time we decided to keep the questionnaire short, to help us keep the analysis time down, as well as increasing the likeliness of people filling out the questionnaire. The questions can be found in the appendix at the bottom of this document.

### B. Our Audience

D&D has a vibrant online community that is generally filled with positivity. Especially on Reddit there is a large active user base. We decided to post a link for our survey on three of the most active D&D related subreddits at the time of writing (July, 2019): r/DnD, r/dndnext and r/DungeonsAndDragons<sup>4</sup>. By focussing on these large subreddits we hope to prevent too much gender-, race- or other bias feeding into our research. We acknowledge that by only posting onto these sites we are prone to have a view that will be dominated by white young males, since that seems to be the dominant usergroup of Reddit, however without further research or more up to date demographic data we can't be sure on the exact nature of our body of respondents. The only thing we know for sure is that all of them play or have played D&D. This was considered sufficient for our current research.

### C. Analyzing Open Questions

Looking at the questions as described in the appendix we can see there is one open question, which was optional. This final question was analysed by hand. We read every reply and decided on appropriate keyword tags. We then looked at these tags to

---

<sup>4</sup>These three subreddits have a total of a little over 1.4 million subscribed users, with just under 5000 active redditors concurrently during peak hours.

see what the predominant themes were. Any of the code we used to process the data can be found in the following GitHub repository : [https://github.com/MGelein/dnd\\_questions/](https://github.com/MGelein/dnd_questions/)

D. *Deciding on Our Output*

To present our findings we had several good candidates but since we wanted to give the results of this research back to the redditors that helped us we decided that an easy-to-digest medium would be necessary. After some debate we settled on a video, which can be found on YouTube<sup>5</sup>. However, since just a video would be a bit light on scientific details we decided to also include a paper to explain our process and our data, which you are currently reading.

### III. Results

When we posted the surveys on Reddit we initially feared that we would not get enough results, however, within 24 hours we received over 500 responses and when we finally closed the questionnaire we had gotten 930 replies, with 606 of those also filling out the open optional final question.

The analysis of the open questions took significantly longer than we initially anticipated, mostly due to the enormous volume of answers we received. Once those questions were tagged we converted the other questions into easier to analyze numerical data. More info on the data formatting can be found on the GitHub repository mentioned above.

The description of our dataset can be found in figure 1. Each of the six columns in that table responds to one of the mandatory six questions. Let us have a look at each of the questions in order.

**Descriptives**

Descriptive Statistics

	years	player_dm	emotional	social	friends	irl
Valid	905	905	905	905	905	905
Missing	0	0	0	0	0	0
Mean	6.821	2.952	3.170	3.924	3.523	3.950
Std. Deviation	8.146	1.089	1.015	0.9741	0.9775	0.9186
Minimum	0.000	1.000	1.000	1.000	1.000	1.000
Maximum	40.00	5.000	5.000	5.000	5.000	5.000

Figure 1: Descriptive statistics on our result data set.

A. *The Mandatory Questions*

On the first question - for how long people had been playing - we saw an average of 6.8 years of playtime, with a large standard deviation of 8.1. The respondent that had been playing for the longest time had an impressive track record of 40 years of experience, while some of the newcomers into the hobby had been playing for less than a year.

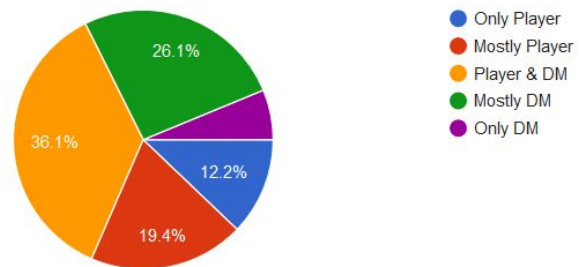


Figure 2: Results of the second question: Where do you fall on the DM-player scale?

The second question looked into what role people mostly assumed at the table, on the scale of player to DM. We see that on average the respondents were mostly both, with only a small percentage (18.4%) of respondents being exclusively either one or the other.

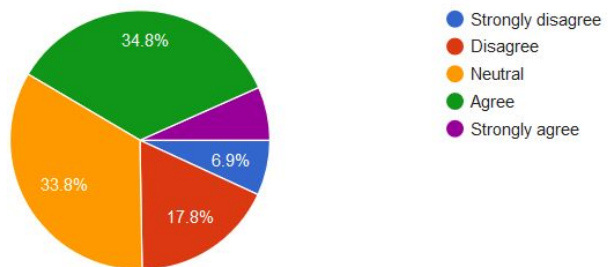


Figure 3: Results of the third question: I have learned emotional skills from playing TTRPG's.

When we asked people if they had learned emotional skills from playing D&D the response was largely neutral (33.8%), with another large part agreeing (34.8%). Overall there was a slight tendency to agree with the sentiment that people had learned emotional skills.

<sup>5</sup> The video link is: <https://youtu.be/hCsTaGJjg84>.

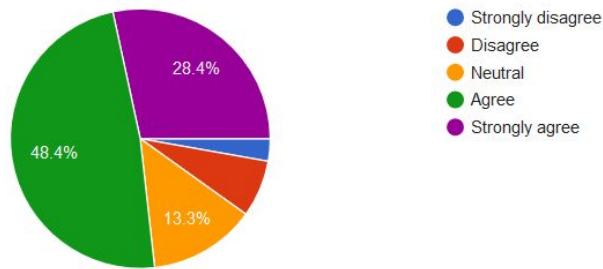


Figure 4: Results of the fourth question: *I have learned social skills from playing TTRPG's.*

The fourth question was about social learning in the context of D&D and it was here that an impressive 76.8% either agreed or strongly agreed with the sentiment that they had gained social skills through playing D&D.

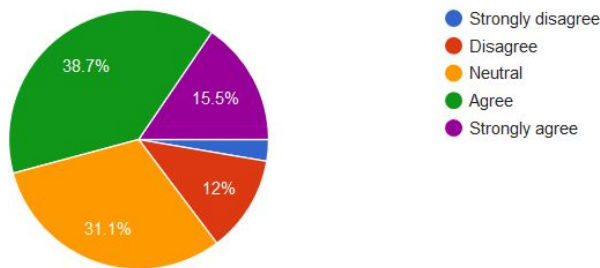


Figure 5: Results of the fifth question: *I have become better at getting friends through playing TTRPG's.*

The results for the fifth question showed that there was more of a divide on whether D&D had made it easier to make friends. Just over half (54.2%) of the respondents agreed, while almost a third stayed neutral in the matter.

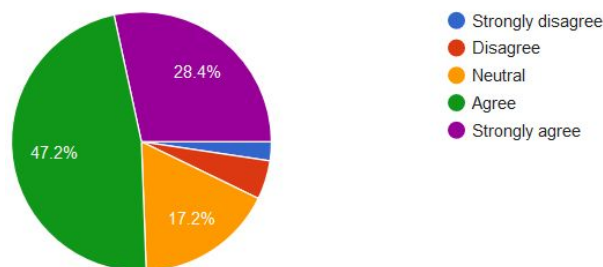


Figure 6: Results of the sixth question: *I feel TTRPG's have helped me in real life.*

The last mandatory question however left very little room for discussion about the

result. More than three quarters (75.6%) of the replies either agreed or strongly agreed to the statement that D&D had helped them in their real life. Even more impressively, only 7.2% disagreed with this statement, showing how this opinion was shared among a very large part of the community.

### B. *The Open Question*

The analysis of the open question took us much more time to complete than the six previous questions combined. However, it also proved to be the most fertile ground for conclusions and interesting observations as it is here where we obtained some of our best quotes and deeper understanding of our role-play behaviour.

Tag	Times Used	Category
Social	125	Skills
Creativity	111	Skills
Fun	93	Recreation
Friendship	92	Recreation
Improvisation	86	Skills
Management	72	Skills
Empathy	57	Personal
Confidence	53	Personal
Expression	51	Personal
Problem solving	43	Skills
Storytelling	46	Skills
Math	31	Skills
Writing	29	Skills
Emotion	26	Personal
Cooperation	15	Skills
English	13	Skills
Public Speaking	12	Skills
Practice for IRL	11	Skills

Figure 7: Results of the seventh question: *What, if anything, have you gained/learned by playing role playing games?*

Some interesting tags can be observed here. It is noteworthy to mention that one reply can have multiple tags, so the total number of tags (n=966) does not equal the total amount of replies (n=606).

Three main categories of tags can be distilled from this overview. Recreation tags were given to answers that indicated that the game was nothing more than a fun way to pass some time with friends. One of the respondents even mentioned that the game was not meant as therapy.

Skill tags were given to those replies that indicated the respondent had learned valuable skills, such as math, history, public speaking or storytelling from the game. Generally these people indicated that the things they had learned from the game had helped them in their real life.

Personal tags were assigned to the responses that showed personal growth through the games. These people mentioned things like improved empathy, more confidence and finding it easier to express themselves. One respondent suffering from autism mentioned that the game had helped them seeing things from other people's perspective, while another respondent struggling with their gender-identity had used the game to work out these issues in a safe and controlled environment.

## IV. Discussion and Conclusion

From our results it is hard to draw any clear conclusions, since the evidence is anecdotal in most cases. Still, we have clearly shown that people definitely pick up useful skills through playing D&D that help them in society. What those skills are seems to differ on a personal basis. For a minority the game is nothing more than recreation, a fun way to reconnect with friends and pass some time. But even in this context this game helps to improve and maintain our social ties.

However, the majority of respondents get a lot more out of the game than mere recreation. The skills picked up in the context of them game seem to help the players

outside of the game. Skills such as group management, public speaking and math or language stand out as some very practical examples. These people play the game for the same reasons as the first group, but have these added benefits. The last group use the game as a way to explore themselves or others. For this group playing D&D becomes more than just a game; it becomes a place to learn about yourself and others, to grow.

## V. Limitations and Further Research

In our research we tried to find the reason people play role-playing games, with a focus on D&D. In the subsequent small survey we got some interesting results, but it is of course clear that this should be just the beginning of this line of research.

Currently our choice of audience for the survey could be target to some criticism, since there is no way to know what biases we have included, or if they can be seen as representative for the D&D community. As such our findings only apply to this same online community.

More complete questionnaires with more open questions could also help corroborate our findings but this was unfortunately not possible due to time constraints.

Another avenue of research might be to look into other role-playing games, TTRPG's or even computer role-playing games. We would be interested to see what the outcome would be if a similar survey would be done on the community of a MMORPG<sup>6</sup>. Some of these online communities have already been shown to produce life-long friendships and in some cases romantic relationships.

The field of research into games is just opening up and most of the time traditional tabletop games have been largely ignored. We hope that this research sparks some debate and fuels more insights to come.

---

<sup>6</sup> Massive Multiplayer Online Role-Playing Game, famous examples include Runescape and World of Warcraft.

## VI. Acknowledgments

We would like to thank the Reddit community of r/DnD, r/dndnext and r/DungeonsAndDragons for their gracious gift of their time and attention. Without you this research would not have been possible.

## References

- [1] Mackay, D. (2017). *The fantasy role-playing game: A new performing art*. McFarland.
- [2] Ewalt, D. M. (2014). *Of dice and men: the story of Dungeons & Dragons and the people who play it*. Simon and Schuster.
- [3] Zak, P. J. (2014). *Why your brain loves good storytelling*. Harvard business review, 28.
- [4] Janis, I. L., & Mann, L. (1965). *Effectiveness of emotional role-playing in modifying smoking habits and attitudes*. Journal of experimental research in personality.
- [5] Mann, L., & Janis, I. L. (1968). *A follow-up study on the long-term effects of emotional role playing*. Journal of Personality and Social Psychology, 8(4p1), 339.
- [6] Luff, I. (2000). 'I've been in the reichstag': *Rethinking roleplay*. Teaching History, (100), 8.
- [7] Dunbar, R., Gamble, C., & Gowlett, J. (2014). *Thinking big: How the evolution of social life shaped the human mind*. Thames & Hudson.

## Appendix: Questionnaire

These were the questions we asked the respondents from the subreddits. For how many years have you been playing tabletop role-playing games (TTRPG's)?

1. Where do you fall on the DM-player scale?
2. I have learned emotional skills (f.e. dealing with grief, gender issues, dealing with emotions, etc.) from playing TTRPG's.
3. I have learned social skills (f.e. making friends, public speaking, theatre, etc.) from playing TTRPG's.
4. I have become better at getting friends through playing TTRPG's.
5. I feel TTRPG's have helped me in real life.
6. What, if anything, have you gained/learned by playing role playing games?

For more details on the answers that we received as well as the process of analysis we would like to point you to our GitHub repository page mentioned earlier in the paper:

[https://github.com/MGelein/dnd\\_questions/](https://github.com/MGelein/dnd_questions/)