Attachment to Fictional Video Game Characters in Pokémon Sword and

Shield.

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Declaration

I declare that this thesis, I have submitted to Institute of Arts, Design & Technology for the degree of MS Cyberpsychology is the result of my own investigations, except where otherwise stated, where it is clearly acknowledged by references.

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Acknowledgements

Table of content

Abstract

"They may be pixels but they're my pixels" (Lewis, 2008, p. 1). Players do not realise how easily they get attached to the in-game characters they interact with, nor how they get so invested in them. Within this study, it was explored three possible ways of developing attachment to fictional, video game characters that the player has not directly made but rather, interacts with. An online survey was used to gather participants (N=45) for the experiment. The survey included several demographic questions, an edited Parasocial Interaction Scale (Yee, 2012) Interpersonal Reactivity Scale (Davis, 1980) and a Ten Item Personality Inventory (Gosling, 2003). Two Mann-Whitney U tests as well as a Spearman's correlation were conducted to analyse the results. However, there was only a significant result regarding attachment and naming. There had been no prior quantitative studies in the field of fictional character attachment, so this study expands the possibilities in terms of research and furthers the understanding both on attachment and in relation to the use of qualitative measures in terms of experiments surrounding human emotions.

Keywords: [attachment, Pokémon, video games, fictional characters, IRI, TIPI, PIS]

1. Literature review

1.1 History

For many, when they think "attachment" the first thing that comes to mind is how much they love their parents, siblings, partner, or other loved ones. They would think Bowlby (1969). John Bowlby is the original psychologists behind the attachment theory (Bretherton, 1992). The theory focuses on how people (mainly children but also young adults) form attachments towards their parental figures, romantic partners as well as friends to create a healthy relationship and secure functioning (Bowlby, 1969). The theory is based behind the concepts of behaviour psychology and observes how different styles of attachment affect kids while growing up. How infants that have been separated from their parents would tend to cry and lash out more in hopes of preventing separation from the parent or re-establish proximity to build comfort (Fraley, 2018)

According to Fraley (2018, paras. 1-3), Bowlby (1969) argued that "infants who were able to maintain proximity to an attachment figure via attachment behaviours would be more likely to survive to a reproductive age". The idea behind attachment would follow a simple system of children asking themselves the question "Is the attachment figure nearby, accessible, and attentive?" (Fraley, 2018, paras. 2-3) To determine a child's response; whether to cry, search and experience distress due to the lack of attachment figure or feel security and love if the attachment figure is in proximity. There have also been studies that examine the relationship between attachment and empathy and the complex connection between the two (Panfile, 2012; Sambo, 2010)

1.2 Attachment to fictional characters played by actors

What about attachment to fictional characters? Fictional characters, as stated by Friend (2007) can be described as "abstract objects akin to novels or plots" (Friend, 2007). Despite

knowing them to not be real living beings, as individuals we often get attached to their stories and journey (Cole, 1999); (Cohen, 2004). Not only do people get attached to actors playing roles in movies and series or characters in books but also video game characters that are merely pixels on a screen (Lewis, 2008).

One study by Shedlosky-Shoemaker, Costabile and Arkin (2014) focused on exploring the idea behind "self-exploration" in terms of people's attachment to fictional characters (Shedlosky-Shoemaker, 2014). Shoemaker (2014) discovered that individuals experience different emotional triggers regarding fictional character in relation to the need to feel involved and included. More so, when a favourite show was cancelled for example, many individuals experienced distress much like Bowlby's theory suggests is experienced by infants when separated from their attachment figure (Bowlby, 1969). While interaction with fictional characters is much like regular interaction, despite more one sided, according to Shedlosky-Shoemaker (2014), it comes with its advantages. In fact, Shedlosky-Shoemaker suggest that the lack of reciprocity is a benefit to real life interaction as it minimises the chances of rejection, causing a safer relationship formation (Nell, 2002); (Horton, 1956). These types of relationships are also known as "parasocial relationships". As the study was made in 2014, as the "new technological age" was still expanding, Shedlosky-Shoemaker points out that people may spend more time watching, reading, and listening to fictional entertainment media however, this could prove beneficial for society and individual growth. Thanks to the help of fictional worlds and scenarios presented in media, people get exposed to scenarios that help shape who they are as well as their morals regarding the 'real world', and this, as Shedlosky-Shoemaker states "is for better or for worse" (Shedlosky-Shoemaker, 2014).

A study by Hu (2016) explores how a parasocial relationship with a celebrity, via characters they play on screen, is affected if said celebrity experiences scandal. Hu explores the parasocial

relationships (PSR), the parasocial interaction (PSI) and the possible parasocial break up (PSB) in case of a scandal and how they affect the attached individuals (Hu, 2016). The findings outline that the stronger the PSR, the more PSB the participants experienced once a scandal was introduced. More so, Hu (2016) discovered that the PSI with a character played by the actor was significantly higher than the PSI with the actor as a guest in a talk show or interview, this information leading us to believe that the attachment is not necessarily with the actor but with the characters they personify (Hu, 2016). One larger limitation for Hu was the effect of the scandal news while affecting the PSR negatively, it was quickly forgotten when participants lost themselves in the media presented (movie/ talk show). This showing that possibly the participants disassociated the characters from the real-life actors that portray them. Unfortunately, that would need to be further researched to be certain.

1.3 Attachment to non-human characters

Both studies above focused on attachments to fictional characters that are portrayed by real life people, however. What if the attachment is to a character that is only pixels? Unable to attach a face or person that will be the character outside in the real world yet still being attached to the character on the screen? This is where the theory of anthropomorphism may be relevant. Anthropomorphism is the theory where an individual attempts to create a non-human entity, either robot, animated cartoon, or computer game characters, that resembles and acts like a living human (Learoyd, 2019). The easiest example is to look at a Disney cartoon, for example The Lion King. The characters presented are not humans, they are animated, 2D safari animals. The factor of relating to the character based on appearance has been removed but then comes their personality and struggles. Many Disney cartoons manage to get a much higher response from audiences with their animal focused movies rather than their human ones (Osborn, 2019). Thanks to

anthropomorphism it becomes easier to attribute human characteristics to non-human characters and get a higher response from individuals. The focus no longer being if they are attached to the character because of participants see themselves in them but more because they relate to them (Learoyd, 2019).

1.4 Attachment to video game characters

When it comes to video games and pixel characters, the first study to look at is Sherry Turkle's (2011) Tamagotchi effect study. A Tamagotchi used to be a small, pocket sized, digital pet, introduced in 1997, it became one of the most on the market and vastly shaped many individual's perception of technology (Dormehl, 2019). For many kids at the time the question of "are they alive" came up in relation to the little pixel pets. As Dormehl (2019, paras. 4 - 6) states "On a spectrum of aliveness, a Tamagotchi seemed less alive than a flesh-and-blood creature but more alive than, say, a family computer or even a beloved games console. It was "alive enough"". To make sure it stayed alive the user had to play, feed, bathe and take care of the pixel pet enough so that it did not end up dying. A Tamagotchi's purpose was to simulate aliveness and it succeeded in getting people to believe it. Due to the Tamagotchi's helplessness on its own, a bond between the user and the pixel pet was quickly formed. While parents "may have scoffed at the idea" (Dormehl, 2019 paras. 7- 8), they also bought into the concept and gave their kids Tamagotchi to train them to be responsible if they were to ever get a real pet (Dormehl, 2019). The Tamagotchi was a perfect example of a version of the Turing test. The Turing test, created by Alan Turing was created to determine whether Artificial Intelligence had reached such a point that it could fool a human into believing that they are conversing with another human (Saygin, 2000). While a Tamagotchi is not human, it was quite capable of making people believe in it being alive. Users would actively grieve when their Tamagotchi pets would die, partially due to the belief that they

played a part in the reason the pixel pet died due to neglect but also due to their attachment to the pixels. Individuals reach such a level of attachment that they made real life graves for their Tamagotchi pets and there were so many, entire cemeteries were formed (Dormehl, 2019). Tamagochie's were not the last such type of pet to be made either with furbies following soon after (Turkle).

Since the Tamagotchi pets, there has been a mass technology revolution and today there are hundreds of different virtual pixel pets, characters and much more (Ritchie, na). Despite the advancements, research has yet to find an understanding of the way individuals get attached to their pixel characters.

1.5 Role Playing Games and Attachment

Lewis, Weber, and Bowman (2008) have done a study behind role playing games and character creation models. Within their discovery they have found that attachment to characters highly depends on self-esteem, addiction, game enjoyment, as well as time spent playing games. However, within their research they focus mainly on roleplaying games where individuals create their personal character and interact with other real players within a pre-built world, filled with non-playable characters (NPCs).

Qualitative research by Bopp, Müller, Aeschbach, Opwis, and Mekler (2019) that discovered the nuance in terms of emotional attachment when it comes to video game characters. Majority studies have classified video game character attachment in a generic matter; however, they find the nuance of attachment when it comes to the pixel characters. Nuance that is based on a characters' competence, respect, feelings of mutual sympathy and worrying for others, making the connection between character and player that much more complex (Bopp, 2019).

1.6 Attachment to NPC's and Other characters

This research will focus on the NPC's known as Pokémon. Pokémon is a Japanese game made by Nintendo that involves capturing and training little pocket monsters. These pocket monsters however, become your friends and allies through the games to such a point that they feel real and with over 800+ to choose from, which have not declined in popularity (Carter, 2014). According to Routledge, Wildschut, Sedikides, Juhl, and Arndt (2012) "nostalgia functions to provide a sense of life meaning" (Routledge, 2012, paras. 1-4). The current research, however, has suggested that nostalgia is a powerful tool for improving psychological health for many people. However, new, and old players may be invested in Pokémon, as in 2014 more than 50 million users would log in to twitch.tv to watch and participate in "twitch plays Pokémon". The game had been coded in such a way that majority responses in the chat room would get input within the game and the character would move (James, 2018). This way, all the players got so invested that they decided to make the game a Nuzlock challenge. A Nuzlock challenge is a way to play the game where if a Pokémon faints in battle, they need to be released permanently as they are considered to have died, essentially making the game harder (bulbapedia, n.a.). Players also created a community around the phenomenon, as well as lore behind all the Pokémon they had acquired within the game (Haque, 2019).

This year is the 25th anniversary since Pokémon was created and because of this, there has been a similar event to "twitch plays Pokémon" made on twitter. A programmer has created a code where the most game input (Up, Down, Left, Right, A, B, Start, and Select) replies within a 15 second time span on a specific tweet, will get input into the game that will change screen within his account pixel avatar (Macgregor, 2021). Many people have tuned into the miniature twitter game with the hopes of completing it. As the games are now 25 years old, many individuals have

grown up with the Pokémon games, anime, comics, and merchandise. Whether the desire to play

the games continues to come from a pure game playing perspective, the level of nostalgia behind

the games, the attachment to the games or possibly the attachment to the characters is a different

matter that we will investigate within this study.

2. Rationale

The current study is focusing on attachment to fictional video game characters in the games Pokémon Sword and Shield. The measurements involved include a Parasocial Interaction Scale (PI Scale) (Yee N. D., 2012) that is used to measure attachment, an Interpersonal Reactivity Index (IRI Scale) (Davis, 1980) used to measure empathy and a Ten Item Personality Inventory (TIPI) (Gosling, 2003) that is used to identify personality types for introverts and extroverts. More so, the study will focus on whether there are changes in in attachment levels in individuals that name their Pokémon versus individuals that do not; as well as individuals that have multiple favourite Pokémon versus only one.

There is multiple hypothesis that were being examined.

1. Individuals that name their Pokémon will have significantly higher attachment compared to those that do not.
2. Introverts will have significantly higher attachment compared to extroverts.
3. There will be a significant relationship between empathy levels and attachment.

3.   Methods

2.1 Design

This study used a quantitative web-survey based design. The choice for the design was based both on ease of access to the survey, as well as due to circumstances around covid-19. The study itself was made as an independent measure, between groups experiment. The Independent variables include naming, personality types in the form of introversion and extroversion from a TIPI scale, time spent playing the game as well as whether participants focus on many Pokémon versus only one. The dependant variables consist of an empathy scale in the form of an Interpersonal Reactivity Index (IRI scale) as well as an edited attachment scale with a Parasocial Interaction Scale (PI Scale).

2.2 Participants

45 participants were gathered mainly through different Discord servers, Twitter, Reddit, and other web sources. A web link to the survey was posted with access to everyone through the researcher's accounts (Appendix). The majority identified as male within their early 20s and do not name their Pokémon. To qualify, every participant had to be a minimum age of 18 years old and was required to play or have played the game Pokémon Sword and Shield.

2.3 Materials

All participants were required to read through the information sheet provided (Appendix A) explaining the focus of the study as well as what would be required of them. If any participant

did not agree to all the requirements within the consent form, they would automatically be directed

to an exit page, thanking them for taking the time to consider the survey before letting them exit

the webpage (Appendix A). Once consent forms were filled (Appendix A), a set of demographic

questions followed (Appendix B), that included participant's demographic information, how long

they spent playing Pokémon sword and shield, their favourite Pokémon, whether they name their

Pokémon, how many in game ribbons they have received with their favourite Pokémon and how

many Pokémon have they earned the "best friend" ribbon with. Following the demographic

questions were the three questionnaires (Appendix B).

Parasocial Interaction Scale (Yee N. D., 2012): This scale consists of 19 questions and collects

data on how participants view their connection to the given character, in this case their favourite

Pokémon. The scale was adapted to fit the focus of the study, Pokémon. The scale is measured in

a five-point Likert scale, ranging from "1 = Strongly Disagree" to "5 = Strongly Agree". Examples

of the questions asked include: "I think my favourite Pokémon is like an old friend". Cole and

Leets (1999) reported a Cronbach alpha of above .70, and the current study found a Cronbach

alpha of .881, indicating strong reliability.

Interpersonal Reactivity Index (Davis, 1980): The IRI scale is made of 28 questions, that are

measured with a five-point Likert scale, where "1 = Does NOT describe me well" and "5 =

Describes me very well". Within the survey, the questionnaire was divided into four segments of

7 questions (4x7) for the convenience of the users. Examples of the questions asked: "I would

describe myself as a pretty soft-hearted person". Davis (1980) reported a Cronbach alpha ranging

from .70 to .81, and the current study found a Cronbach alpha of .892, showing high reliability.

Ten Items Personality Index Scale (Gosling, 2003): The final scale consists of ten questions in the

form of a 6-point Likert Scale, where "1 = Strongly Disagree" and "6 = Agree Strongly". The

questions were presented in the form of descriptive of a personality trait and the participants had

to rate to what extent those traits apply to them. Example question: "Extraverted, enthusiastic".

This scale required reverse scoring for some items before being used for calculations. Gosling et

al (2003) reported a Cronbach alpha of .68 for Extraversion, this research reported .656 for

Extraversion.

2.4 Procedure

All participants were gathered via the internet with the majority coming from Discord

servers. A link to the survey was posted by the researcher in Pokémon centred groups that they are

a part of. The survey was created using Microsoft Forms. All materials mentioned have been used

within the survey, starting with the Information sheet, followed by a Consent form, the

Demographic questions, the three Questionnaires (PRS, IRI, TIPI) and a Debrief sheet (Appendix

A). All responses were received once participants finished the survey. After the collection, all the

data has been coded in excel and analysed with SPSS.

2.5 Ethics

As the study does not use any sensitive individuals, and due to its anonymous nature, the experiment was classified as Ethics form A. A form was filled out and submitted to the IADT ethics committee (Appendix A). To guarantee the safety of the participants, there were both phone numbers as well as mental health web services provided.

4.   Results

3.1 Overview of results.

After data collection there were 45 participants, the majority of which identified as male with a M= 24 in terms of age. Many participants that had the chance to answer the question regarding naming their Pokémon reported that they do not name their video game companions.

These results will be discussed according to the three hypotheses of this research:

Hypothesis 1: People that name their Pokémon will have a higher attachment score than people that do not.

Hypothesis 2: Introverts will have higher attachment scores than extroverts.

Hypothesis 3: There will be a significant relationship between empathy and attachment.

3.2 Hypothesis 1: Naming and attachment

Preliminary analyses were performed to ensure no violation of the assumptions of normality, leading to the use of non-parametric test. A Mann-Whitney U test investigated whether naming your Pokémon have higher levels of attachment compared to individuals that do not name their Pokémon.

Hypothesis 1 had stated that there would be significant difference between individuals that have named their in-game Pokémon companions, and those that do not.

The relationship between naming and attachment (as measured by the Parasocial Interaction Scale) was investigated using Mann-Whitney U test. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a significant different in attachment between people that named their Pokémon (Md=4, n=6) and people that do not name their Pokémon (Md=4, n=10), U=6.00, z=-2.609, p=.007, r=.05. According to the Mann-Whitney U, individuals that named their Pokémon did have significantly higher levels of attachment, supporting hypothesis 1.

3.3 Hypothesis 2: Personality type and attachment

The relationship between personality type (measure by Ten Item Personality Index) and attachment (as measured by the Parasocial Interaction Scale) was investigated using Mann-Whitney U test. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a no significant different in attachment between introverts (Md.=4, n=34) and extroverts (Md.=4, n=10) U=169.500, z= - .014, p= .989, r= .05

3.4 Hypothesis 3: Attachment and Empathy

The relationship between empathy (measured with Interpersonal Reactivity Index Scale) and attachment (measure with Parasocial Interaction Scale) was investigated using a Spearman's correlations coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was no significant correlation between the two variables r = .386, n= 40, p < 0.05, rejecting Hypothesis 3.

5. Discussion

4.1 Overview of Findings

The goal of the study was to investigate the reasons behind attachment to video game characters, researching the impact of naming the characters, player's personality types as well as a possible connection between empathy levels and attachment scores. This section will discuss the results, strengths, and limitations of the study as well as practical implications and suggestions for future research.

4.1.1 Hypothesis 1

The first hypothesis stated that there would be a connection between attachment and naming your Pokémon. Despite low number of participants completing the survey and answering the naming question, the results found a significant connection between naming and attachment. The rationale for the hypothesis, came from the concept of attachment to real life pets or even children. When adopting a pet or having a child, one of the very first thing individuals do is give it a name. There have been a handful of studies that focus on naming (Taylor, 1984; Bird, 2019) but none directly on naming and attachment and how the relationship the two individuals. Such studies would be difficult to conduct as it would be difficult to empirically examine. However, one study by Kido (2018), explored the connection and attachment an individual has to an item they have named, such as a doll or toy. "People express their attachment through naming" (Kido, 2018). According to their study, regarding naming inanimate objects such as toys or, non-human creatures such as pets, many children do so with the focus on communicative purposes. For pets it is assumed that they know their name as many pets learn to respond to the sound of it. However, toys are not

alive and comes to question why kids name them. Kido (2018) stated that the names for dolls are primarily used for speaking, to bring oneself satisfaction as calling names, individuals enjoy the sound they hear. This information can be used to examine further into the study of sound and whether that has an impact on attachment or naming.

4.1.2 Hypothesis 2

The second hypothesis focused on individuals' personality types in regards as to their attachment. It was initially hypothesized that players that have more introverted personalities would have a higher chance to get attached to the pixel Pokémon characters. This was assumed due to the more private and isolated type of nature introverted individuals have compared to extroverted ones (Granneman, 2017). This assumption was conceived from the idea that due to their more private focused lives; introverts would look to connection from non-human characters. This hypothesis was not supported as the results from a Mann-Whitney U were not significant.

It is uncertain whether those results are valid due to the sample size. More so, there had not been an even number of participants in both the introverted and extroverted groups and the reliability of the short form TIPI scale. To be able to determine any clear results from this hypothesis, there would be a need for a specific study focused on the attachment levels of different personality types. A more robust and reliable personality measure should be used.

4.1.3 Hypothesis 3

Hypothesis three assumed that there would be a significant connection between a player's empathy levels would and their attachment. However, the results from a Spearman's correlation did not find a significant relationship between the variables.

4.2 Strengths and Limitation of Present Study

4.2.1 Strengths

A strength of this research is the quantitative method used. As mentioned within the literature review, most studies within the field of fictional character attachment are made either qualitatively or focused on characters players who play as rather than interact with their characters. These characters tend to be ignored in terms of the focus of studies.

Secondly, a benefit was the current the game that was chosen. Pokémon Sword and Shield is less than two years old, with many frequent users.

4.2.2 Limitations

Despite the popularity of the game, not many individuals took part in the survey and several participants leaving partial and incomplete responses.

There may also have been confusion in the context and phrasing of questions due to participant feedback. Future studies should be also including open ended questions to gather additional insights.

Future research should also consider potential covariates that may impact attachment such as the impact of storylines on character attachment. Lastly, the question regarding the naming of the Pokémon was initially left out of the survey by mistake, leaving more than half of the participants without an answer to the question.

4.3 Theoretical and Practical Implications

The present study contributes to the area of scientific studies on attachment to non-human, non-living beings and how people interact with them and feel towards them. With the ever-evolving range of technology and video games, many games are made single player and you interact with only the other fictional pixel characters. Due to the single player nature of this attachment theory with further and more in-depth exploration into the science behind the attachment to characters that are not real, it could be possible to learn things about individuals that tend to prefer fictional characters and isolate themselves to play video games rather than interact with their peers.

4.4 Future Research

As stated above, one of the main focuses for future research should be the full picture of a video game. The story, the characters, and the environment all together and how that affects the player, rather than isolate the separate parts. While studies on the separate segments would be useful to do to further the understanding of attachment, it is important to know how the full experience affects players first.

5. Conclusion

This study focused on the attachment to fictional video game characters. The data of collected from the participants found a significant relationship between attachment and naming the character. There was no significance found for personality types and attachment, nor between empathy and attachment. There were several strong aspects of this study which have unfortunately been outnumbered by the limitations however, the significance of the findings does not falter because of it. Sometimes not having significant findings in some of your hypothesis, is a finding upon itself. Whether in the end they were insignificant due to the relatively small sample size or due to lack of correlation it is not yet known. Studies like this one, that focus on the emotional response and attachment to characters may require new scales to accurately measure this phenomenon. Until this is further developed qualitative scales will be capable of giving more accurate results.

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Appendices

Appendix A:

Information sheet

Information Sheet

Title of project: Attachment to Video Game Characters in Pokémon Sword and Shield

You are being invited to take part in the research Attachment to Video Game Characters. This project is being undertaken by Teodora Ivanova for our major research project as part of the MSc in Cyberpsychology, IADT.

Before you decide whether you wish to take part, it is important for you to understand why this research is being done and what it will involve. Please take time to read this information carefully and discuss it with someone you trust. If there is anything that is unclear or if you would like more information please ask, our contact details are at the end of this information sheet. Thank you for reading this.

What is the purpose of the project?

There are thousands of fictional characters (whether played by real life actors or are animated cartoons, characters in books or games) that individuals tend to identify with or are fond of. This study will focus on whether there are specific traits or personality types that have a higher chance to get attached to fictional video game characters.

Who is being invited to take part?

You may take part in this study if you have played either of the games Pokémon Sword and Shield

What is involved?

If you choose to participate, you will be asked demographic questions about your age and gender and location, followed by four game specific questions and three questionnaires. The first questionnaire will measure your levels of empathy towards fictional characters. The second, your levels of attachment and lastly, your extraversion and introversion level. The survey will take approximately

Do I have to take part?

You are free to decide whether you wish to take part or not. If you do decide to take part, you will be asked to sign a consent form that lets us know you have read this information sheet and understand what is involved in the research. You are free to withdraw from this study at any time and without giving reasons however, if you have submitted the questionnaire, it will not be possible to withdraw as all responses will be anonymous and completely unidentifiable.

What are the disadvantages and risks (if any) of taking part?

There are no significant risks to taking this survey however, if you feel any distress from any given question, there will be support numbers and websites provided at the end for your wellbeing.

If any question makes you uncomfortable, you are free to skip over it.

What are the possible benefits of taking part?

We cannot promise the study will help you, but the information we get from the study will help to increase the understanding of fictional character attachment

How will my information be used?

Your responses to the questionnaire will be combined with all other participants data and statistically analysed. No individual's data will be identifiable in the final report. The results of this analysis will be reported in the thesis for the MSc in Cyberpsychology in the Dun Laoghaire Institute of Art, Design & Technology. This can be requested through the library at IADT, or by emailing the researcher or supervisor at N00190072@student.iadt.ie or

Liam.Challenor@iadt.ie . This study may also be published in an academic journal article and may be written about for blog posts or media articles and these can be requested from the researcher.

How will my data be protected?

Under the EU General Data Protection Regulation (GDPR) the legal basis for collecting data for scholarly research is that of public interest. The regulations regarding the protection of your data will be followed. Only data which is needed for analysis will be collected. By giving your consent to take part in the study you are consenting to the use of your data as detailed in this information sheet.

The data will be retained by the researcher for at least one year, and may be retained for up to 7 years if the results of the study are published in certain capacities (e.g. in a journal article). There is also a possibility that the fully anonymised dataset may be submitted to a journal and made available to other researchers and academics worldwide for verification purposes, but if this occurs it will be ensured that you are not identifiable from the data.

As the supervisor on this project, I, Liam Challenor, am responsible for ensuring that all datasets will be stored in accordance with GDPR regulations and those which are not submitted to a journal will be fully deleted on or before date 7 years from data collection.

The only people with access to the data will be the researcher, supervisor, statistics lecturers/ tutors.

In the case of a data breach, the data protection officer at IADR will be informed immediately. Participation in the survey will be completely anonymous and there will be no chance of identification. The data will be either securely disposed of, or placed in a repository.

You will find contact information for IADT's Data Protection Officer, Mr Bernard Mullarkey, and more information on your rights concerning your data at https://iadt.ie/about/your-rights-entitlements/gdpr/

Who has reviewed the study?

This study has been approved by the Department of Technology and Psychology Ethics Committee (DTPEC).

What if you have any questions or there is a problem?

If you have a concern about any aspect of this study, you may wish to speak to the researcher(s) who will do their best to answer your questions. You should contact Teodora Ivanova at N00190072@student.iadt.ie or their supervisor Dr Liam Challenor at Liam.Challenor@iadt.ie

Thank you for taking the time to read this Information sheet.

Date of Information Sheet

29. November. 2020

Appendix B:

Consent Form

CONSENT FORM: Please Read all the questions and tick the Box to Continue

Title of Project: Attachment to Video game characters in Pokémon Sword and Shield

Name of Researcher/s: Teodora Ivanova and Dr. Liam Challenor as supervisor

1	I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.	☐
2	I understand that my participation is voluntary and that I am free to withdraw at any time.	☐
3	I understand that data collected about me during this study will not be identifiable when the research is published.	☐
4	I am over 18	☐
5	I agree to take part in this study.	☐

Appendix C:

Debrief Sheet + Sendoff page

DEBRIEFING INFORMATION FORM

Title of Project: Attachment to Video Game Characters from Pokémon Sword and Shield

Name of Researcher/s: Teodora Ivanova and Dr Liam Challenor

Thank you very much for taking part in this research study.

This study is designed to investigate whether there are specific traits or personality types that have higher chance to get attached to fictional video game characters.

Data protection

Your data will be treated according to GDPR regulations. You will find contact information for IADT's Data Protection Officer, Mr Bernard Mullarkey, and more information on your rights concerning your data at https://iadt.ie/about/your-rights-entitlements/gdpr/

Support resources

If you have been affected by the content of this study in any way, the organisations below may be of assistance

In Ireland:

Childline:

Freephone 1800 666 666

Texting the word "Talk" to 50101

Online chat at childline.ie

Jigsaw.ie

UK:

NHS Support Website: https://www.nhs.uk/conditions/stress-anxiety-depression/mental-health-helplines/

Local NHS Helpline (England Only): https://www.nhs.uk/service-search/mental-health/find-an-urgent-mental-health-helpline

Mental Health Helplines:https://www.mind.org.uk/information-support/guides-to-support-and-services/crisis-services/helplines-listening-services/

USA:

Support Line: https://www.aware.ie/support/support-line/

Help Line Resources: https://www.nami.org/Support-Education/NAMI-HelpLine/Top-HelpLine-Resources

Mental Health America: https://www.mhanational.org/get-involved/contact-us

Everywhere:

ReachOut.com

CheckPoint (Here you can find specific emergency numbers for every country): https://checkpointorg.com/global/

More Helplines for varied countries: https://unitedgmh.org/mental-health-support

A collection of emergency numbers: https://togetherweare-strong.tumblr.com/helpline

If you have any questions about this study, please contact the researcher or supervisor at

Researcher: N00190072@student.iadt.ie

Supervisor: Liam.Challenor@iadt.ie

Thank you again!

It means so much to me that you took the time to take part in my research.

I hope you have a wonderful day.

^^

In case participant did not agree to consent form:

Sorry to see you go

If you are seeing this screen, You have chosen to not take part in this study.
If you have changed your mind about participating that is okay and I Thank You for the interest.
Hope you have a lovely day.

If you chose this option by mistake please go back and choose Yes at the Consent form.

Appendix D:

Ethics

Form **A**

Postgraduate Students

IADT Institute Research Ethics Committee RESEARCH ETHICAL APPROVAL   FORM

<u>One</u> printed and signed copy of this form should be submitted to the chair of the Institute Research Ethics Committee. A soft copy should also be supplied, preferably via email.

Title of project   <u>Attachment to Fictional, video game characters</u>

Name of researcher   <u>Teodora Ivanova</u>

Email contact   __N00190072@student.iadt.ie_____

Name of supervisor(s)

		Yes	No	N/A
1	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	✓		
2	Will you tell participants that their participation is voluntary?	✓		

3	Will you obtain written consent for participation (through a signed or 'ticked' consent form)?	✓		
4	If the research is observational, will you ask participants for their consent to being observed?	✓		
5	Will you tell participants that they may withdraw from the research at any time and for any reason?	✓		
6	Will you give participants the option of not answering any question they do not want to answer?	✓		
7	Will you ensure that participant data will be treated with full confidentiality and anonymity and, if published, will not be identifiable as any individual or group?	✓		
8	Will you debrief participants at the end of their participation (i.e., give them a brief explanation of the study)?	✓		
9	If your study involves people between 16 and 18 years, will you ensure that passive consent is obtained from parents/guardians, with active consent obtained from both the child and their school/organisation?			✓

10	If your study involves people under 16 years, will you ensure that active consent is obtained from parents/guardians and that a parent/guardian or their nominee (such as a teacher) will be present throughout the data collection period?			✓
11	If your study requires evaluation by an ethics committee/board at an external agency, will you wait until you have approval from both the IADT and the external ethics committee before starting data collection?			✓
12	If you are in a position of authority over your participants (for example, if you are their instructor/tutor/manager/examiner etc.) will you inform participants in writing that their grades and/or evaluation will be in no way affected by their participation (or lack thereof) in your research?			✓
13	If you are in a position of authority over your participants (for example, if you are their instructor/tutor/manager/examiner etc.), does your study involve asking participants about their academic or professional achievements, motivations, abilities or philosophies? (please note that this does not apply to QA1 or QA3 forms, or questionnaires limited to market research, that do not require ethical approval from the IREC)			✓

14	Will your project involve deliberately misleading participants in any way?			✓	
15	Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort?			✓	
16	Does your project involve work with animals?			✓	
17	Do you plan to give individual feedback to participants regarding their scores on any task or scale?				✓
18	Does your study examine any sensitive topics (such as, but not limited to, religion, sexuality, alcohol, crime, drugs, mental health, physical health)			✓	
19	Is your study designed to change the mental state of participants in any negative way (such as inducing aggression, frustration, etc.)			✓	
20	Does your study involve an external agency (e.g. for recruitment)?			✓	
21	Do your participants fall into any of the following special groups?	People with learning or communication difficulties		✓	

(except where one or more individuals with such characteristics may naturally occur within a general population, such as a sample of students)	Patients (either inpatient or outpatient)		✓	
	Criminals / people in custody		✓	
	Victims of crime or disaster		✓	
	Any other vulnerable population not specified above		✓	

If you have ticked any of the shaded boxes you should refer to the codes of professional ethics relevant to your discipline, and consult with your supervisor without delay. **You will need to fill in Ethical Approval Form B** and submit it to the Institute Research Ethics Committee **instead** of this form.

There is an obligation on the researcher to bring to the attention of the Institute Research Ethics Committee any issues with ethical implications not clearly covered by the above checklist.

I consider that this project has **no** significant ethical implications to be brought before the Institute Research Ethics Committee. I have read and understood the specific guidelines for completion of Ethics Application Forms. I am familiar with the codes of professional ethics relevant to my discipline (and have discussed them with my supervisor).

Signed	Print Name	teodora Ivanova	Date	06.10.2020

Applicant

I have discussed this project with my student, and I agree that it has no significant ethical implications to be brought before the Institute Research Ethics Committee. ***This form must be signed by at least one of the postgraduate student's supervisors. It is preferred if the form is signed by all of the student's supervisors.***

Signed   Print Name   Date

Supervisor

Signed   Print Name   Date

Supervisor

Signed   Print Name   Date

Supervisor

Appendix E:

Demographic Questions

1. Age
2. What gender do you identify as?
3. Where are you from?

(Country)

4. How long have you played Pokémon Sword and Shield (or both) (in hours)
   You can find this on your switch console: On your switch -> My profile -> Play Activity and find the Pokémon game and write down the time! If you have played both, put down the time for both.
5. Who is your favourite Pokémon?
   If you have more than 1, put your MOST favourite first.
   Max 6
6. Do you name your Pokémon?
   Yes
   No
7. What ribbons have you earned with your FAVOURITE Pokémon?
   View ribbon in game: press X on console -> go to Pokémon ->choose your FAVOURITE Pokémon -> Check summary ->go to ribbons with the joystick -> What are the ribbons you have with them?
8. How many of your Pokémon have you earned the "Best Friend Ribbon" with?
   View ribbon in game: press X on console -> go to Pokémon ->choose your FAVOURITE Pokémon -> Check summary ->go to ribbons with the joystick -> What are the ribbons you have with them?

Best friend ribbon looks like the picture **->**

Appendix F:

Parasocial Interaction Scale

When answering the questions, think about your favourite Pokémon

Answer the questions with statements between:

"Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree"

1. I think my favourite Pokémon is like an old friend
2. My favourite Pokémon makes me feel comfortable, as if I am with friends
3. My favourite Pokémon seems to understand the things I know
4. If my favourite Pokémon appeared in another game, I would want to play it
5. I would like to meet my favourite Pokémon in person
6. I like hearing the voice of my favourite Pokémon in my home
7. I like to compare my ideas with what my favourite Pokémon says
8. When I'm playing the game, my favourite Pokémon is in, I feel as if I am part of the group
9. I miss seeing my favourite Pokémon when they're not involved in the game
10. If there is a story about my favourite Pokémon online or in a magazine, I would read it
11. I am not satisfied when other characters replace or overshadow my favourite Pokémon
12. I look forwards to playing the game with my favourite Pokémon in it
13. When my favourite Pokémon shows how they feel about other Pokémon, it helps me make up my own mind about how I feel about them too
14. I see my favourite Pokémon as a natural, down-to-earth person
15. I sometimes make remarks to my favourite Pokémon during the game
16. I feel sorry for my favourite Pokémon when they make a mistake
17. The game my favourite Pokémon is in shows me what they are really like
18. I find my favourite Pokémon cute

19. When my favourite Pokémon interacts with other Pokémon it makes the game more fun to play

Appendix G:

Interpersonal Reactivity Index (IRI)

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate answer on the scale at the top of the page:

1. Does Not describe me well
2. Describes me a little
3. Neutral
4. Describes me well
5. Describes me very well.
 READ EACH ITEM CAREFULLY BEFORE RESPONDING.

1. I daydream and fantasize, with some regularity, about things that might happen to me.
2. I often have tender, concerned feelings for people less fortunate than me.
3. I sometimes find it difficult to see things from the "other guy's" point of view.
4. Sometimes I don't feel very sorry for other people when they are having problems.
5. I really get involved with the feelings of the characters in a novel.
6. In emergency situations, I feel apprehensive and ill-at-ease.
7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.
8. I try to look at everybody's side of a disagreement before I make a decision.
9. When I see someone being taken advantage of, I feel kind of protective towards them.
10. I sometimes feel helpless when I am in the middle of a very emotional situation.
11. I sometimes try to understand my friends better by imagining how things look from their perspective.
12. Becoming extremely involved in a good book or movie is somewhat rare for me.
13. When I see someone get hurt, I tend to remain calm.
14. Other people's misfortunes do not usually disturb me a great deal.
15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
16. After seeing a play or movie, I have felt as though I were one of the characters.
17. Being in a tense emotional situation scares me.
18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
19. I am usually pretty effective in dealing with emergencies.
20. I am often quite touched by things that I see happen.

21. I believe that there are two sides to every question and try to look at them both.

22. I would describe myself as a pretty soft-hearted person.

23. When I watch a good movie, I can very easily put myself in the place of a leading

character.

24. I tend to lose control during emergencies.

25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.

26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.

27. When I see someone who badly needs help in an emergency, I go to pieces.

28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

Appendix H:

Ten item Personality Index (TIPI)

Here are a number of personality traits that may or may not apply to you. Please select the number to indicate the extent to which you agree or disagree with the statement. You should rate the extent to which the pair of traits applies to you, even if one of the characteristics applies more strongly than the other

	Strongly Disagree	Disagree moderately	Disagree a little	Agree a little	Agree moderately	Agree Strongly
Extraverted, enthusiastic.	○	○	○	○	○	○
Critical, quarrelsome.	○	○	○	○	○	○
Dependable, self-disciplined.	○	○	○	○	○	○
Anxious, easily upset.	○	○	○	○	○	○
Open to new experiences, complex.	○	○	○	○	○	○
Reserved, quiet.	○	○	○	○	○	○
Sympathetic, warm	○	○	○	○	○	○
Disorganised, careless	○	○	○	○	○	○
Calm, emotionally stable	○	○	○	○	○	○
Conventional, uncreative	○	○	○	○	○	○

Figure 1: Ten Item Personality Index

Appendix I

TIPI Scoring Template

Ten-item measure of the Big Five   1

Ten-Item Personality Inventory-(TIPI)

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which <u>you agree or disagree with that statement</u>. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
1	2	3	4	5	6	7

<u>I see myself as:</u>

1. _____ Extraverted, enthusiastic.

2. _____ Critical, quarrelsome.

3. _____ Dependable, self-disciplined.

4. _____ Anxious, easily upset.

5. _____ Open to new experiences, complex.

6. _____ Reserved, quiet.

7. _____ Sympathetic, warm.

8. _____ Disorganized, careless.

9. _____ Calm, emotionally stable.
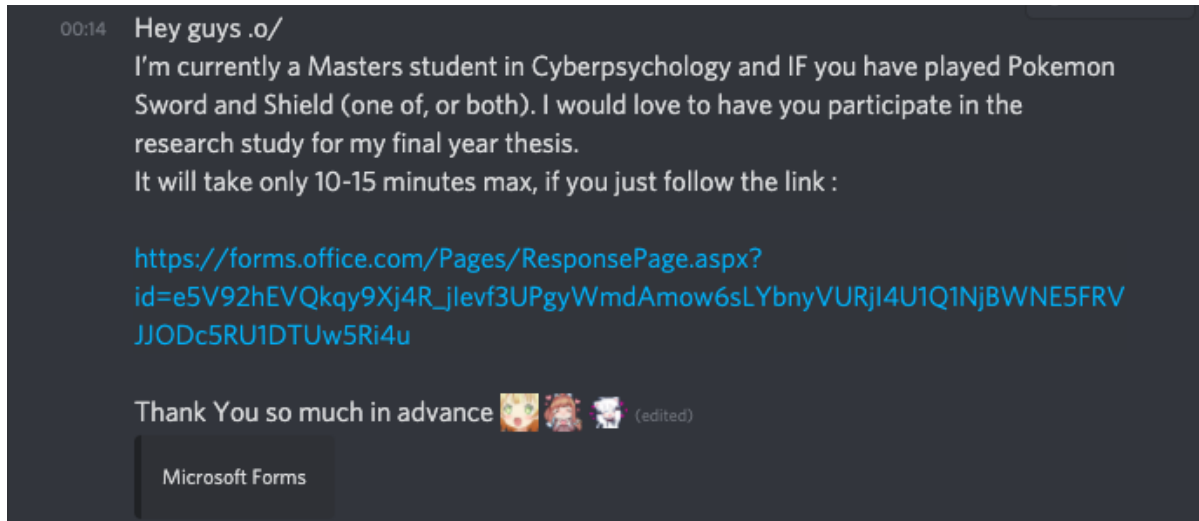
10. _____ Conventional, uncreative.
_____

TIPI scale scoring ("R" denotes reverse-scored items):

Extraversion: 1, 6R; Agreeableness: 2R, 7; Conscientiousness; 3, 8R; Emotional Stability: 4R, 9;

Openness to Experiences: 5, 10R.

Appendix J

Discord messages

Appendix K

Reddit post

r/PokemonSwordAndShield · Posted by u/ACloudKat 4 months ago

Masters thesis survey: Attachment to Video game characters in Pokemon Sword and Shield

forms.office.com/Pages/...

Help

Appendix L

Tumblr post

As you may know, I am in my final year of college so,

IF you have played either Pokemon Sword or Shield (or both).

It takes 10-15 minutes max, if you just follow the link :

https://forms.office.com/Pages/ResponsePage.aspx
id=e5V92hEVQkqy9Xj4R_jIevf3UPgyWmdAmow6sl

Microsoft Forms

Microsoft Forms

FORMS.OFFICE.COM

Thank You so much in advance!!

Pls do share w/h others <3