## Video Game Critics on YouTube

Exploring the professionalism of video game reviews on YouTube

Student Name: Zino Duyvestijn

Student Number: 414583

Supervisor: Dr. Ruud Jacobs

Master Media Studies - Media & Business Erasmus School of History, Culture and Communication Erasmus University Rotterdam

Master's Thesis

June 2018

#### VIDEO GAME CRITICS ON YOUTUBE:

#### EXPLORING THE PROFESSIONALISM OF VIDEO GAME REVIEWS ON YOUTUBE

#### **ABSTRACT**

Before making a purchase, a considerable number of consumers employ reviews to inform themselves on whether a product is worth purchasing. These reviews can be produced by consumers who have had a good or bad experience with a product or by professional critics who hold certain standards while reviewing cultural goods especially. This distinction between these two types of reviewers might not be as clear on an online video platform like YouTube that has gained significant popularity in the last decade, and for video games which are products that are still evolving in their status of cultural evaluation. However, previous research has not tackled the topic of video reviews enough to have a full understanding of the dynamics that video provides for reviews. Therefore, this thesis investigates the professionalism of video game reviews on YouTube by asking the following question: How do online video game reviews on YouTube fit within the professional critic – consumer review dichotomy? The method by which this question was examined was mainly a quantitative content analysis performed on reviews posted on YouTube for video games from 2016 and 2017. The data that were gathered during this analysis were the types of discourse elements related to high art and popular aesthetics, different kinds of elements regarding video production that were used in the reviews, and various other review and reviewer characteristics. Another important variable in this research was the institutionalisation of the critic producing the review. The main findings of this research were that there is indeed not a clear distinction in how discourse is used by reviewers, although reviewers of video games do generally use a specific type of evaluation that for example includes comparisons with other games, a discussion on the game's form aspects, and the game's level of intelligence. It was also found that the more a reviewer was institutionalised the less popular aesthetic discourse was used in the review. However, the institutionalisation of the critic did not impact much of the other review characteristics, which could have been the result of how it was operationalised. From this study, it can be concluded that for video game reviews on YouTube, there are no reviewers that can necessarily be identified as professional critics, at least not in the traditional way. Furthermore, there is no apparent dichotomy between professional critics and consumer reviewers for video game reviews on YouTube, as the results imply it is more a sliding scale between the two extremes.

KEYWORDS: Online reviews, Video reviews, Video game reviews, Review discourse, YouTube

# Table of Contents

Chapter 1: Introduction	1
Chapter 2: Theory	6
2.1 Cultural Approach	6
2.2 Economic Approach	11
2.3 Review Characteristics	13
Chapter 3: Method	19
3.1 Sampling	19
3.2 Operationalisation	21
3.3 Data Collection	24
3.4 Validity and Reliability	24
3.5 Data Analysis	25
Chapter 4: Results	27
4.1 Video Game Review Discourse Fit	27
4.2 Video Game Review and Reviewer Characteristics	32
4.3 Exploratory Analyses	36
4.4 Improving Institutionalisation	40
Chapter 5: Conclusion	42
5.1 Theoretical and Societal Implications	44
5.2 Limitations	46
5.3 Future Research	47
References	49
Annendix A	52

# Chapter 1: Introduction

In the current age of the internet, big data, and social media, consumers have more information to base their purchase decision on than ever before. This information could consist of specifications of a product which can be found on various tech websites, the information could be different prices of a product which the consumer will compare to each other to maybe find the cheapest, but another significant source on which consumers base their purchase decision are reviews (Zhu & Zhang, 2006).

Before the internet became as ubiquitous as it is now, consumers might have sought guidance for their purchase decision, or even their taste, especially regarding media and entertainment products (Holbrook, Lacher, & LaTour, 2006), from professional critics who would write reviews in magazines and newspapers or appear on television, or these consumers sought guidance through their peers by depending on word-of-mouth. With the internet, these two options converged, as everyone could leave their opinion on products on for example websites, social media, on blogs, or by creating videos and which therefore made it easy to access the opinions of others. Even though the lines between these professional critics and consumer critics have become blurred on the internet, this might not mean that they are both regarded as equally legitimate or trustworthy. These two types of reviews play different roles in society where professional critics mostly act as influencers of cultural taste and preferences, i.e. cultural authorities (Holbrook, Lacher, & LaTour, 2006; Kersten & Dielby, 2012), and consumer reviews are used as a direct utility when deciding on a purchase (Chevalier & Mayzlin, 2006; Hu, Liu, & Zhang, 2008). There is value, especially for marketers, in understanding how this dichotomy has developed in the online climate.

One online platform that is very popular for both professional and consumer critics is the video hosting platform called YouTube. This platform is one of the most visited websites in the world ("Alexa Top 500 Global Sites", n.d.) on which videos can be watched and uploaded for free, which results in 400 hours of video uploaded every minute ("YouTube - Statistics & Facts | Statista", n.d.). As YouTube allows uploaders to run ads on their videos, from which a part of the revenue will go to the uploader, a large number of people have been able to build a business around this concept of creating and posting videos on YouTube. A popular example of this would be Felix Kjellberg, also known as Pewdiepie on YouTube, who has one of the highest number of people subscribed to his channel, namely around 60 million, and has an estimated monthly earning of at least 50 thousand euros ("pewdiepie YouTube Stats, Channel Statistics - Socialblade.com", n.d.). Among those online business people there are also critics and even journalism companies, who use YouTube for this goal,

consumers who have had an experience with a product, either good or bad, also post reviews, which would act as the word-of-mouth mentioned before.

What makes YouTube as a video platform important to study, especially in the context of product reviews, is that consumers have repeatedly indicated the importance of product review videos. For example, 62% of consumers watch product review videos before making a purchase and customers are 52% more likely to purchase a product featured in a YouTube review ("The 13 Most Popular Types Of YouTube Videos", 2017). In the study by Yu and Natalia (2013) it was also found that user generated reviews on YouTube will increase customer purchase intention, especially when the source is credible, which relates back to the professional critic – consumer critic discussion.

Although there is a huge amount of reviews posted on YouTube and although these reviews could have an important role in the decision making process of a consumer research on video reviews has been lacking significantly and is even almost non-existent. Previous research on critics and online reviews has for example mainly focussed on the effect of the ratings of written online reviews, both professional and consumer, on product sales (Zhu & Zhang, 2006), written online consumer reviews of books (Chevalier & Mayzlin, 2006), consumer reviews from Amazon.com on books, DVDs, and videos to see their effect on sales (Hu, Liu, & Zhang, 2008), the role of content and style of written online consumer reviews on books and automobiles (Schindler & Bickart, 2012), professional movie reviews in newspapers (Kersten & Dielby, 2012), written offline and online movie reviews (Verboord, 2014), and written professional and amateur online television series reviews (Van Aart & Kersten, 2016). Only one study has been found that included product reviews in video format (Yu & Natalia, 2013).

As can be seen in the literature listed above, almost no research has included reviews in video format. By focussing on reviews from YouTube, this study therefore tries to begin filling this gap in research on online reviews. This study continues the line of research that includes both professional and consumer reviews and examines how they differ as it is arguably quite valuable to see how these two types of reviews compare to each other, especially to see whether consumers prefer to take advice from one or the other in future research. This study, however, adds an aspect to this line of research on online reviews that has not been included in many studies yet, namely a content analysis on online video reviews, especially regarding content and style. The actual content of online reviews has only been examined by a few studies (Schindler & Bickart, 2012; Van Aart & Kersten, 2016; Verboord, 2014). Lastly, this study adds new value to previous research on online reviews by focussing on a product that has not been researched often in this context (Zhu & Zhang, 2006; Zhu & Zhang, 2010), namely video games.

The video game industry is one of the largest media industries in the world, having an even bigger revenue than the movie industry and the music industry (Nath, 2016), which makes it very relevant to study. What makes this industry even more relevant in the context of this study is that gaming videos together with product reviews are in the top 5 of the most viewed video categories on YouTube ("The 13 Most Popular Types Of YouTube Videos", 2017). Furthermore, consumers use online reviews to guide their purchase decision especially for experience goods (Hu, Liu, & Zhang, 2008), which video games are. Even with this high relevance of video games for online review research, it has not been studied a lot.

As this study is very exploratory in nature, because it tackles a new context and somewhat new method in this context, the research question is quite open. Additionally, there is a set of open sub-questions that will support the main research question. The main research question of this study is as follows; (RQ) *How do online video game reviews on YouTube fit within the professional critic – consumer review dichotomy?* The sub-questions that support this question are; (SRQ1) *How does the professional / consumer nature and other characteristics of the review affect the review's evaluation by the audience?*, (SRQ2) *How is audience engagement affected by professional and consumer reviews?*, (SRQ3) *How do the characteristics of a video review contribute to the professional / consumer nature of the review?*, (SRQ4) *How do the characteristics of the reviewer contribute to the professional / consumer nature of a video review?* 

It is clear that research on online reviews needs a new angle especially regarding the medium on which the reviews appear and the type of product, which this research tries to provide by using YouTube as the medium and video games as the product under scrutiny of the reviews. Next to this scientific relevance, this research also has social relevance. First, the results could give insight into how firms, especially in the media and entertainment industry, can anticipate both professional and consumer reviews and based on this how these firms can decide whether to stimulate both types or one over the other. Furthermore, this study could be able to provide additional insight into how consumers might take over the role of professionals regarding their role in guiding opinions.

In the next few paragraphs the different concepts used in the research questions will be discussed briefly. The distinction between professional critics and consumer critics that has been referred to multiple times now, is a distinction that has been made continuously by previous research on the topic of product reviews (Verboord, 2009; Kersten & Bielby, 2012; Verboord, 2013; Zhu & Zhang, 2006). It refers to the role that the person who performs the review takes on. Since the nature of a review is to express an opinion on or an experience with a certain product – which can be a product of any variety – in order to either help or guide other people in their consumption

process or to try to communicate with the company that has produced the product (Chevalier & Mayzlin, 2006), a review can be quite a significant factor for consumer in their decision making process (Hu et al., 2008). A professional critic, then, on a basic level, is a person who on a regular basis produces reviews on, most often, current and relevant products that he or she has consumed for their occupation. These professional critics are often part of an institute, organization, or more specifically a media title, and are often seen as an important agent in the cultural climate, especially regarding cultural and entertainment goods (Holbrook et al., 2006; Verboord, 2013). On the other side, consumer critics are people that have purchased a product and are either content or discontent with their experience with the product, which they in turn will share with other consumers on, in the current digital age, a variety of platforms such as Amazon, YouTube, and IMDB (Chevalier & Mayzlin, 2006; Hu et al., 2008; Verboord, 2013). These consumer critics are then not part of an organization and do not get reimbursed for their reviews, although there are exceptions.

The audience evaluation referred to in the first sub research question is a fairly new concept that will be added to research on online reviews. Although there is research that has used concepts similar to the audience evaluation of a review (Hu et al, 2008), the video medium and online platform that will be used in this study allows for a slightly different measure on how the audience evaluates the review. On YouTube videos, like on most social media, people can indicate whether they like or dislike the video. For product reviews on YouTube, this like-dislike ratio could have the same role as the function on review platforms like Amazon and IMDB where people can indicate whether a review was helpful or not, although there have been no studies that examine this.

Engagement, as mentioned in the second sub research question, has been a reoccurring topic of interest in research on social media and online marketing (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011; Heller Baird & Parasnis, 2011; Sashi, 2012), but the concept has not been included in research on online reviews, which is probably because of the media and platforms that have been studied made engagement irrelevant. However, for YouTube, engagement is part of the experience of watching videos on the platform as users can comment on, like, and share the videos. This gives a different dimension to online product reviews since the audience of the review can communicate directly with the reviewer.

The characteristics of the review and reviewer mentioned in the last two sub research questions refer to concepts that have not been included in previous research on online reviews and the professional – consumer dichotomy, at least not as the specific combination as used in this research. Video characteristics here mainly refer to the production quality of a video review and reviewer characteristics refer to how well known and regarded the reviewer is (Hu et al., 2008).

In order to answer the research question and the sub questions of this research, a method that has been used a few times in the context of online reviews (Verboord, 2013; Kersten & Bielby, 2012; Schindler & Bickart, 2012) will be used here as well, namely a quantitative content analysis. Since the main focus of this research is to find whether the elements of video reviews on YouTube fit with elements that determine whether a review is of a professional nature or a consumer nature, a quantitative content analysis suits to bring this fit to light and it allows to test for any occurring patterns and significances. Based on the focus of this study, the content analysis will mainly focus on the discourse and language of the video reviews, since these elements have been found to contribute to whether a review is professional or consumer centred (Verboord, 2013). However, other elements such as meta information of the videos will also be collected. The collected data will then also have a descriptive function on how online video game reviews on a video platform are constructed, which should be valuable since research on this topic is limited.

The rest of this thesis is structured as follows: First, a theoretical framework will be laid out where previous research and findings of that research are discussed and will be connected to the research problem of this study. This will be done in three segments, namely a segment that discusses a more cultural oriented part of research on reviews, a segment that takes on a more economical approach to online reviews, and a segment that discusses different elements and characteristics of reviews that do not necessarily fit within the two prior approaches. After the theory, the method chapter will explain what the sample frame of this research was, how the final sample was collected, how the content analysis was performed, and which statistical tests have been performed on each of the variables. Next, the results chapter presents the results of the tests discussed in the method chapter and interpret these results with regards to the research questions. Lastly, in the conclusion chapter, the research questions are answered, practical implications of these answers are discussed, the weaknesses of this study are analysed and suggestions for future research will be given.

# Chapter 2: Theory

In order to answer the research questions mentioned above, two main coherent theoretical approaches are discussed in this chapter. This follows the line of previous research done on the topic of (online) reviews, where one portion of studies on this topic takes on a more cultural approach and a focus on the role of professional reviews, and another portion takes on a more economical approach with more of a focus on consumer reviews. Both approaches have a strong sociological background in common. The last section of this chapter takes on a little less defined part of literature, as it considers research on the various characteristics of reviews. Within these sections, some hypotheses will be constructed based on previous research to test in the context of this study. The content of this chapter acts as a guide to constructing the research question, concepts, and hypotheses that will be tested in this research, and therefore discusses previous research and findings on reviews in order to build on this topic of research.

### 2.1 Cultural Approach

The studies that take on the cultural approach base their framework on how in society there are cultural hierarchies that influence how taste, specifically taste in cultural goods, is distributed and developed (Holbrook et al., 2006). This is then also the basis for the professional critic and consumer review dichotomy. Examples of studies that have used this approach are the studies done by Holbrook et al. (2006), Verboord (2009), Kersten and Bielby (2012), Verboord (2013), Kersten and Verboord (2013), and partly by Jacobs et al. (2015), and Van Aart and Kersten (2016).

At the core of the cultural approach is the assumption that the division between societal classes parallels a division of cultural taste, where the higher classes, especially with the characteristic of higher education, have reinforced a higher ranking for certain types of art forms, such as theatre and classical music, which has acted as an additional separator between higher and lower classes (Holbrook et al., 2006). This has resulted in people from those higher classes developing more sensitivity towards what exactly determines quality in cultural products, which in turn developed professional critics that are separated from audience evaluations, as consumer reviews are called by Holbrook et al. (2006), and even journalistic reviewers. Because these professional critics are regarded as experts on the quality of certain cultural goods, they are also able to lift certain products to a 'higher degree' in society (Kersten & Bielby, 2012). One of the key factors that give media critics their legitimacy and influence is the high degree of institutionalisation of their work field, which means that media critics, or at least the companies they work for, have a

high amount of resources like money, labour, knowledge, and network connections at their disposal (Veboord, 2013). This is also indicated by Eliashberg and Shugan's (1997) definition of professional critics: "persons usually employed by newspapers, television stations or other media who screen newly released movies and provide their subjective views and comments on the movie for the public's information" (p. 70). Since a higher institutionalisation means that critics have access to more resources, in the context of videos this should also mean that professional critics are able to offer a higher production quality which can for example mean having access to a studio, microphones, having better lighting quality, and so forth. This is tested by the following hypothesis:

**Hypothesis 1:** The institutionalisation of a critic has a positive effect on the production quality of a video game review on YouTube.

However, it also seems that professional critics and consumer reviewers work together in generating consumer appeal towards a product as Holbrook et al. (2006) found that in the context of music reviews, an expert critic's judgement of a song has a weak positive effect on the audience appeal of that song, and this effect is moderated by nonexpert audience judgements. This also means that consumers mostly enjoy products which they perceive to be excellent and partly share their judgement of excellence with experts.

The legitimacy of these professional critics, however, is continuously scrutinized (Verboord, 2009). This legitimacy is powered by the amount of people in society who consider these critics to have the expertise and ability to classify cultural products based on their quality. However, the legitimacy of critics have been undermined increasingly. The first factor that contributes to this is the internet as it has made these classifying systems less hierarchical (Verboord, 2009) by (1) creating the opportunity for more information to be spread by more people, including consumer reviews, (2) blurring the boundaries between production and consumption, (3) making it "difficult to assess the quality and validity of information on the internet" (Verboord, 2009, p. 626), (4) making information seeking more social, and (5) by making choice behaviour more personalised. This all results in consumer reviewers, also called lay/peer critics by Verboord (2009), being valued more than professional critics. The second factor that has undermined the legitimacy of professional critics is the trend towards a more omnivorous cultural taste, as opposed to a more segregated highbrow – lowbrow taste pattern (Verboord, 2009), which indicates that professional critics who assigned quality to more highbrow cultural products have become less relevant. Verboord's (2009) research partly shows this, as it was found readers with a more general-interest omnivorous taste value all

kinds of critics – expert, internet, and peer critics – while readers with a genre specific omnivorous taste valued mostly peer critics.

Additionally, these changes that the internet has made to professional critics' legitimacy as described above, have also impacted the way professional critics evaluate cultural goods.

Traditionally, professional critics have been assumed to have a 'pure gaze', which hold that they value form over function, and stands against the more popular 'naïve gaze' where "the distance between audience and cultural good is minimized" (Kersten & Bielby, 2012, p. 185). This is partly shown by a study done by Kersten and Verboord (2014) where they found that films that show attributes associated with the Hollywood aesthetic are more publicly acclaimed than films that show attributes associated with art house, which are more professionally and critically acclaimed.

However, with certain societal developments such as the impacts the internet had and the proliferation of a more omnivorous taste pattern, also among the higher classes, this distinction between the two aesthetic dispositions have been blurred, at least for certain media such as television and film (Kersten & Bielby, 2012). This is supported by Kersten and Bielby's (2012) findings which show that reviews on films in newspapers employ both elements from popular and elite art discourse. The question is whether this holds true for video games as well.

For this, a deeper discussion on the discourse of both professional and consumer critics is needed. As professional critics obtained a role of some kind of authority in the analysis and evaluation of - here cultural - products, they developed a distinct type of vocabulary as well, at least in film (Kersten & Bielby, 2012). This relates back to the distinction between the pure gaze and the naïve gaze, where critics with a pure gaze evaluate a product on different criteria than critics with a naïve gaze (Kersten & Bielby, 2012). Research on the difference of discourse in reviews on more and less critically acclaimed films indeed shows that reviews on more critically acclaimed films more often discuss a film's quality and significance, while certain elements such as a discussion on actors and the complexity of the film were shared between both more critically acclaimed films and more popular acclaimed films (Kersten & Bielby, 2012). Verboord (2013) restates the distinction of a 'high art discourse' where critics use words that signify the creative and culturally intellectual quality of a film, and a 'popular aesthetic discourse' where functionality, amusement, and other criteria linked to the experience of the audience are more prevalent and is used more by fans/consumers of a product and "agents with significantly less status in the cultural field than ... critics" (p. 924). Furthermore, it was found that professional critics use a more neutral suggestive discourse when evaluating a tv series while amateur critics use a more expressive discourse (Van Aart & Kersten, 2016). Additionally, Van Aart and Kersten (2016) found that professional critics employ a discourse that has

a dialogue form although this is in contrast with what Verboord (2013) argues. The difference of discourse between critics and consumers stated here, leads to the following hypotheses:

**Hypothesis 2a**: The institutionalisation of a reviewer has a positive effect on the amount of high art discourse items found in video game reviews on YouTube.

**Hypothesis 2b**: The institutionalisation of a reviewer has a negative effect on the amount of popular aesthetic discourse items found in video game reviews on YouTube.

Since this research is investigating how reviews are performed on an online video platform, it is important to also look at how professional and consumer reviews take shape in an online context. As mentioned before, the internet has caused multiple developments in the field of reviews, mainly the development and proliferation of easily accessible user generated reviews of products (Verboord, 2013). These user generated reviews go through a very different process than professional reviews as they do not deal with editorial controls, media routines, and professional norms of journalistic content (Verboord, 2013). The internet has also made it easier for untrained media workers to enter the field, which means the role and the practices of these workers on the whole spectrum has changed (Verboord, 2013). This is also partly indicated by Jacobs et al. (2015) as they found that a professional review of a movie does not have an effect on the audience's evaluation of that movie or the audience's involvement while watching it, while a consumer review does have an effect on both, where a negative consumer review leads to a negative audience evaluation of the movie and less audience involvement with the movie. Furthermore, because of these lower boundaries of entry in the field of cultural evaluation, the dominant criteria in cultural evaluations may have shifted as online critics are not as much tied to institutional expectations and might not have or utilise the same cultural capital as professional critics (Verboord, 2013). Finally, because of the current attention economy of the digital age, organizational affiliation of any kind of outlet is often disregarded (Verboord, 2013). The shift in discourse used in online reviews described above leads to the following hypothesis:

**Hypothesis 3**: The average amount of high art discourse items is significantly less than the average amount of popular aesthetic discourse items found in video game reviews on YouTube.

Since criteria of evaluation can differ across products (Verboord, 2013), it is essential here as well to employ criteria discourse that is relevant to the product under scrutiny, namely video games.

However, since there was no previous literature found on the criteria used in the cultural field of video games, criteria used for film are adopted, as this is arguably the closest medium to video games that has been covered by previous research (Jenkins, 2005; Smuts, 2005; Adams, 2008). For film, there are generally two sides of criteria that are used by critics, namely a perspective that looks more at the artistic status of the film and a perspective that looks more at the commercial orientation of the film (Verboord, 2013). Films that are considered to have a more commercial orientation are characterised by "big budgets, strong marketing campaigns and actors who have star power" (Verboord, 2013, p. 925). Films that are considered to have a more artistic status are characterised by their positioning in amateur cinema, and their directors achieve prestige by "awards, film festival nominations and other forms of consecration" (Verboord, 2013, p. 925).

It is the question, however, whether these two different perspectives are relevant to video game criticism as the artistic status of video games has been a topic of discussion, especially when games started to show their creative potential (Jenkins, 2005). Following the argumentations for film being an art form from the first half of the 20<sup>th</sup> century, Jenkins (2005) argues that the popularity of video games demands a re-evaluation of their aesthetic qualities. Games thus fall into the category of 'lively arts', because they "open up new aesthetic experiences and transform the computer screen into a realm of experimentation and innovation that is broadly accessible" (Jenkins, 2005, p. 5), and because they offer players an intense emotional experience. However, Jenkins (2005) also notes that game designers need to be careful to not fall into cinema envy, a commercial focus, formulaic and predictable themes, and also that video game designers need to continue to innovate, push the envelope, and strive for the maturing of the video game medium in order for video games to stay relevant as art.

Smuts (2005) argues that the main problem with not defining video games as art is the danger of censorship having an effect in the video game industry. Furthermore, he argues that not all video games can be considered an art form, although that a significant amount video games do classify as art according to several theories of art; first of all, video games can fit within the historical narrative of art, but they also fit with aesthetic, institutional, representational, and expressive art theories (Smuts, 2005). This is also in line with what Adams (2008) argues, as he shows how most games have characteristics that correlate with definitions of art, but he also argues, like Jenkins (2005), that video games and video game developers need to change somewhat in order for video games to completely be regarded as art. The things that need to happen according to Adams (2008) are: a shift from the focus on fun, the development of a game specific aesthetic, experimentation by game developers, games must challenge the player aesthetically or logically, game awards need to

change, game reviewers should change into game critics, and lastly video games need to have a focus on their prime visionary as an artist.

Since video gamers are a fairly new art form - which is still contested - tools to analyse this medium have not developed to maturity yet (Gee, 2006). Arguably, the same analytical tools used for literature and film, do not capture video games as a whole, and therefore new analytical tools have to be developed (Gee, 2006). The basis for these new analytical tools, as Gee (2006) argues, is looking at how video games allows a "proactive production by players of story elements, a visual-motoric-auditory-decision-making symphony, and a unique real-virtual story" (p. 61).

### 2.2 Economic Approach

The more economical approach holds that word of mouth (WOM) is especially a strong factor of online reviews, specifically as the result of consumer reviews (Zhu & Zhang, 2006). Moreover, this approach states that online reviews can have an impact on the sales of products (Zhu & Zhang, 2006; Chevalier & Mayzlin, 2006). The core of this approach, however, is described well by Hu, Liu, and Zhang (2008) by using the Transaction Cost Economics (TCE) model. This model aims to describe why consumers (or organizations) perform transactions, how they perform them, and under which circumstances. The most relevant part of TCE for this study is that it states that consumers base their purchase decision on the level of uncertainty around the product, where online reviews can help to reduce this uncertainty (Hu et al., 2008).

WOM has been studied a lot in marketing research, both offline before the internet and with the rise in popularity of the internet also online, with results showing that it can have a big effect on consumer demand (Zhu & Zhang, 2006). With the internet, consumers do not have to depend as much on professional reviews, as it has become very easy for consumers to find more information on products, which also includes other people's opinion on those products (Zhu & Zhang, 2006). People use other consumer's opinion on a product then to determine whether the product also complements their taste, especially with experience goods, since the evaluation of these products can be quite subjective, which in turn means taste can determine whether someone finds a product worth buying (Zhu & Zhang, 2006). This is also the reason for why online reviews are useful for studying the popular appeal of a product instead of the professional judgement, also especially because most online reviews are produced by individual consumers (Zhu & Zhang, 2006). The preference of consumer generated reviews over expert reviews (Zhu & Zhang, 2006) might then also be explained by this.

However, consumer reviews cannot always be regarded as a good predictor of product sales, since they can be easily manufactured by stakeholders of a product, and consumer reviews have a

high likelihood of being biased as a consumer has probably chosen to consume a certain product when he or she believes he or she will have a positive experience (Chevalier & Mayzlin, 2006). Furthermore, consumers choose to only post a review because they have had a very good experience or a very bad one, with the extremes especially prevalent in a product's introduction period as Zhu and Zhang (2006) found in their study on the impact of online reviews on video games sales. The authors argue that his would then mean that online consumer reviews are not a reliable indicator for the attitude of the general population towards a product. However, online reviews can still influence product sales, especially the sales of a less popular product, which was confirmed again in their later study (Zhu & Zhang, 2010). Furthermore, Chevalier and Mayzlin (2006) found as well that favourable online reviews — which were the more prevalent ones - can increase product sales. The impact of reviews on product sales is also in line with Hu et al.'s (2008) findings which show that a negative review has a bigger impact on the decrease of sales than a positive review on the increase of sales.

Product reviews are thus still useful for the consumer decision-making process. TCE, as mentioned before, explains why this is the case. TCE sees consumers as decision makers that go through a number of processes which result in a final decision, mostly which product they buy (Hu et al., 2008). An important element in these processes is that there is some form of uncertainty, which could for example relate to lack of information on product specifications or lack of knowledge on the product quality. Uncertainty here then refers to "the costs associated with unexpected outcomes tied to information asymmetry" (Hu et al., 2008, p. 204), where the higher the uncertainty, the higher the transaction costs. In order to reduce the transaction cost of a product, i.e. the uncertainty surrounding the product, the consumer will employ reviews of other consumers to increase their information on a product, especially regarding experience products, since the characteristics of those kinds of products are hard to ascertain before they are consumed (Hu et al., 2008; Zhu & Zhang, 2010). Following this reasoning, this would also mean that consumers would employ reviews of critics to reduce the uncertainty. Hu et al.'s (2008) study finds that there are several factors that can influence a consumer's perceived uncertainty around a product, namely the quality reputation of a reviewer, the exposure of a reviewer, how much a product is covered by reviews, and the age of the product. This in turn leads to an increase in the product's purchase.

As becomes clear by applying the TCE model to online reviews, part of a consumer's decision for a purchase relies on the employment of online consumer reviews. As Zhu and Zhang (2010) argue, the strength of this reliance is affected by multiple environmental and contextual factors such as the characteristics of consumers and the product, competition in the market, business models and the design of a online review system. In a user generated video context, consumers' reliance on

online reviews depends on the credibility of the reviewer that produced the video, which in turn is related to the source's expertise and trustworthiness (Yu & Natalia, 2013). Other factors that play an important part as well in this reliance on online consumer reviews, are characteristics of the reviews themselves, such as the kinds of statements made in the reviews and the style factors of the language used in the reviews (Schindler & Bickart, 2012). These factors will be discussed in more detail in the next section.

### 2.3 Review Characteristics

An extra third approach, that connects to both of the previous main approaches, is an approach that focuses on the communication style, content and other characteristics of reviews. This approach is also included in this research with the goal of more specifically answering some of the subquestions. This approach mainly focusses on how certain characteristics of reviews can have an impact on their perceived usefulness by consumers (Schindler & Bickart, 2012). Some examples of review characteristics that can have an impact are the quality and popularity of the reviewer (Hu et al., 2008), the number and types of statements in – positive product evaluations, product descriptions, and reviewer descriptions - and style factors of a review (Schindler & Bickart, 2012), and of course the discourse used by reviewers as discussed previously (Kersten & Dielby, 2012; Verboord, 2014; Van Aart & Kersten, 2016). Zhu and Zhang (2010) argue that there are also external factors that can determine how much consumers rely on online reviews, especially product characteristics such as product popularity, and consumer characteristics such as internet experience.

The valence of a review, either the grade that is given for a product or the attitude of the review towards a product, is an obvious characteristic which consumers take into consideration when reading a review, as this is a direct statement on the product quality, which therefore reduces the product quality uncertainty of consumers (Hu et al., 2008). Furthermore, the valence, either positive or negative, can be a basis for whether consumers find a review helpful for their purchase decision making (Schindler & Bickart, 2012). Previous research has also found that online user reviews mostly have a more positive valence (Chevalier & Mayzlin, 2006) while professional critics are more moderate (Van Aart & Kersten, 2016). To examine whether this is also the case for reviews on YouTube, the following hypotheses are formulated:

**Hypothesis 4a**: The institutionalisation of a critic has a negative effect on the attitude of the reviewer towards the product.

**Hypothesis 4b**: The amount of high art discourse items found in video game reviews on YouTube has a negative effect on the attitude of the reviewer towards the product.

**Hypothesis 4c**: The amount of popular aesthetic discourse items found in video game reviews on YouTube has a positive effect on the attitude of the reviewer towards the product.

**Hypothesis 4d**: The institutionalisation of a critic has a negative effect on the rating given by the reviewer.

**Hypothesis 4e**: The amount of high art discourse items found in video game reviews on YouTube has a negative effect on the rating given by the reviewer.

**Hypothesis 4f**: The amount of popular aesthetic discourse items found in video game reviews on YouTube has a positive effect on the rating given by the reviewer.

The valence of a review is not the only thing consumers consider when employing it to get more knowledge on a product, as the quality of the reviewer is also important to the consumer. Consumers might pay more attention to reviewers with a high "quality reputation" (Hu et al., 2008, p. 205), because these reviewers are considered to be more reliable and trustworthy. An online reviewer creates trust, and thus a higher quality reputation, by continuously writing reviews that have no ulterior motives other than providing people with an honest experience or opinion (Hu et al., 2008). Another characteristic of a reviewer that consumers pay attention to when reading reviews is the exposure of the reviewer (Hu et al., 2008). This is different from the quality of the reviewer as exposure is more about how often a reviewer is seen on a review platform, i.e. how popular a reviewer is (Hu et al., 2008). Consumers then might value the reviews of popular reviewers higher than other reviews. The significance of these two factors, quality reputation and exposure, is also indicated by the findings of Yu and Natalia (2013), as they found that source credibility, source expertise and source trustworthiness, which are quite similar to especially the quality reputation, but also the exposure of a reviewer, influence whether consumers employ online video reviews. However, as noted in the 'cultural approach' section, previous research found that consumers trust reviews written by consumers more than those written by professional critics and thus attach more quality to those reviewers. This in turn would imply that the higher the institutionalisation of a critic, the less its quality reputation. Based on the findings discussed here combined with what is discussed in the cultural and economic approach, several hypotheses can be formulated:

**Hypothesis 5a**: The institutionalisation of a critic has a negative effect on the quality reputation of a reviewer.

**Hypothesis 5b**: The amount of high art discourse items found in video game reviews on YouTube has a negative effect on the quality reputation of a reviewer.

**Hypothesis 5c**: The amount of popular aesthetic discourse items found in video game reviews on YouTube has a positive effect on the quality reputation of a reviewer.

**Hypothesis 6a**: The institutionalisation of a reviewer has a negative effect on the exposure of the reviewer.

**Hypothesis 6b**: The quality reputation of a reviewer has a positive effect on the exposure of the reviewer.

The length of reviews is another characteristic that plays an important role for consumers when they are on the one hand reading reviews and on the other hand when they are using a review for a purchase decision. The results of Chevalier and Mayzlin's (2006) study suggest that the length of reviews plays a role in how consumers use reviews. Schindler and Bickart's (2012) results are more clear in showing the role of the review length, as they suggest that the longer a review is, the more a review is perceived to be valuable by consumers, but only up to a point. Schindler and Bickart (2012) argue that this is because longer reviews probably include more useful information for consumers, but too much information can be confusing, which is why the effect of the length of the review in its helpfulness is limited to a certain point. This also connects to Zhu and Zhang's (2006) findings that show that with the increase of a rating, the review length goes up, except for the highest ratings. This might be due to how the reviews with a moderately high grade are more balanced or mixed which results in a greater length (Zhu & Zhang, 2006). Based on the findings on the length of a review combined with the concepts around the characteristics of a reviewer and the discourse discussed in the cultural approach, the following hypotheses are formed:

**Hypothesis 7**: The length of a video game review on YouTube has a positive effect on the quality reputation of a reviewer.

**Hypothesis 8a**: The amount of high art discourse items found in video game reviews on YouTube has a positive effect on the length of a review.

**Hypothesis 8b**: The amount of popular aesthetic discourse items found in video game reviews on YouTube has a negative effect on the length of a review.

There are also factors outside of the actual reviews or the reviewers that can influence how likely a consumer is to employ online reviews. Zhu and Zhang (2010) argue that product popularity and consumer characteristics, i.e. internet experience, influence how much consumers rely on online reviews. Both these factors are a double-edged sword though. For the first factor, consumers might rely more on online reviews for highly popular products because there is just more exposure of those reviews. However, consumers might also rely on reviews for a product lower in popularity, because each review gives new information on that product. For the second factor, consumers with higher internet experience will rely more on online reviews, because they use the internet more often and have more confidence in the internet. However, consumers with less internet experience will also rely more on online reviews, because higher experienced consumers are more distrusting towards online information and are more likely to have information overload (Zhu & Zhang, 2010). The authors found that indeed online consumer reviews are more influential for games whose players have more internet experience. These external factors will not be taken into account for this study due to limited time and other resources, but they are still useful for a discussion on future research.

One last characteristic of video reviews that is covered, is a characteristic that, as far as has been found, has not been studied yet in the context of reviews with video as a medium, namely engagement with the review. The concept of Web 2.0 has allowed internet users to interact with anyone else on the internet, which has been one of the fundamental building blocks of social media (Kaplan & Haenlein, 2010). Review platforms such as Amazon and IMDB have also taken advantage of this function by allowing users to evaluate and comment on reviews. However, even though it has been noted throughout the years that it is important to investigate how each online platform utilises this engagement and how important this engagement is for users (Kietzmann et al., 2011; Heller Baird & Parasnis, 2011; Sashi, 2012; Ashley & Tuten, 2015; Khan, 2017), it has been incorporated only sparingly into studies on online reviews (Hu et al., 2008).

YouTube is generally considered as social media (Kaplan & Haenlein, 2010; Kietzmann et al., 2011) and the interaction of users on the video platform is therefore an important characteristic, as the main functionalities of the website are, among others, sharing of videos and having

conversations around those videos (Kietzmann et al., 2011). This is also shown by the motives users of the video platform have for engaging, as liking and disliking videos and video viewing is driven by relaxing entertainment motives, commenting and uploading by social interaction motives, sharing by information giving motives, and reading comments by information seeking motives (Khan, 2017). The conversations happen mainly in the comment sections of videos hosted on the platform and the topics of those conversations can range from support towards the content creator to heavy antagonism (Lange, 2007) and this polarity can differ depending on the topic of the video (Siersdorfer, Chelaru, Nejdl, & San Pedro, 2010). The question regarding the engagement level on a video review on YouTube is whether it is different for more institutionalised critics using a more high art discourse or consumer critics. Furthermore, the like and dislike function integrated in YouTube is arguably similar to the concept of the quality reputation of a reviewer. However, another characteristic of YouTube videos is the channel subscription number, which might also be an indicator for the quality reputation of a reviewer. Therefore, if both the likes and the subscription number are indicators of quality reputation, they should correlate positively with each other, which will be tested by the following hypothesis:

**Hypothesis 9**: The like to dislike ratio of a video game review on YouTube correlates positively with the subscription number of the channel on which it is posted.

In this chapter multiple approaches regarding online reviews were discussed on which this study will build. The cultural approach focuses on how in society, certain groups of people, i.e. institutions, can produce and connect cultural and symbolic value to products of various cultural fields. With the age of the internet however, these critics have lost some of their legitimacy to consumer reviews on products that are posted online. The discourse that these critics and reviewers employ in their evaluation differs as the two groups view the product from a different angle and see their role in society differently, but the internet has caused the discourse of critics to be mixed with characteristics of consumer reviews. Since the position of video games regarding whether the medium is art is a topic of discussion, this makes it interesting to see how high art discourse and popular aesthetic discourse holds up in reviews on video games. The economical approach has its focus more on how online consumer reviews can impact the sales of a product. This approach also provides an explanation for why consumers employ reviews in their purchase decision making, namely to reduce uncertainty around the product. Several factors can influence how much consumers rely on online reviews. The last approach which focuses on the characteristics of reviews looked at how for example valence, length, reputation of the reviewer, etc. play a role in online

product reviews. Based on these characteristics, most hypotheses were formed, which looked at how these characteristics would interact with the institutionalisation of reviewers. An additional characteristic specific to YouTube reviews was finally discussed, namely audience engagement.

# Chapter 3: Method

The research design of this study will be discussed in this chapter where first the general method will be described after which the sampling procedure will be explained. Furthermore, the operationalisation of the variables used for this research which are partly based on theory and previous research will be explained and the collection of the data is discussed after this. Finally, the various data analyses used for testing the hypothesis and exploring video reviews are described and a discussion on the validity and reliability is provided. This chapter thus provides the arguments for certain research design decisions that are necessary to explore what has been discussed in the theory chapter.

To answer the research question and the sub-questions, a quantitative content analysis was used in order to be able to describe the professional nature and characteristics of video game reviews on YouTube. Quantitative content analysis can be useful for both research that is exploratory and descriptive in nature and for research that is trying to test relationships and theoretical assumptions, especially in media and communication research (Riffe, Lacy, & Fico, 2005). By using a quantitative content analysis, a picture can be drawn on how video reviews, specifically on video games, are structured, what kinds of discourse are used, and by using various quantitative data analyses, their fit with professional and consumer reviews and the influence of the reviews' characteristics can be examined.

### 3.1 Sampling

The target population for this research is reviews of video games uploaded on YouTube. There were no restrictions on for example the number of views or number of channel subscribers, because the goal of this study is to include both 'professional' reviews, which might have higher numbers on both, and 'amateur' reviews, which might have lower number of views and subscribers. The time period for which the reviews have been posted on YouTube was from the start of 2016 until the 11<sup>th</sup> of April, 2018, the day on which the reviews were collected. This relatively short timeframe was chosen because due to the societal developments and developments on the internet, as also mentioned in the theory section, the way reviews are produced and what kind of discourse is used might still be shifting, which in turn would mean that reviews from years ago could create noise in the data set. The length of this time frame is not necessarily backed up by literature, however it can be argued that with the speed of developments on the internet, looking further than two years back

is not useful to describe the current situation of reviews on YouTube. The reviews were then collected from only video games that were released in 2016 and 2017.

The aim of this research was to obtain a sample size of 150 reviews. This somewhat limited amount of reviews was collected mainly because of time and resource limits on the study, as a content analysis on audio-visual material takes a considerable amount of time and effort (Riffe, Lacy, & Fico, 2005). However, since the material is of audio-visual nature, this sample size should provide enough data (Riffe, Lacy, & Fico, 2005) and statistical strength (Pallant, 2016) in order to perform the various data analyses.

In the initial sampling, videos on YouTube were searched by using the term 'game review'. However, a very limited amount of reviews use the word 'game' in their title. This sampling method was thus cancelled. The actual sampling procedure started by obtaining a list of video games released in 2016 and 2017 from which a sample of video games could be drawn. This list did not contain all video games released in 2016 and 2017, as this number would get up to the thousands, but did include games that at least got some amount of attention. The total amount of video games in this list was 924 with 510 video games released in 2016 and 414 video games released in 2017. From each year, 50 games were randomly sampled with a random number generator, in order for each game, both smaller indie games and big triple A games, to have a chance of being sampled. This thus resulted in a total of 100 sampled video games.

For each of those 100 games, a list of all reviews of the video game uploaded on YouTube from a week before the game's release until the 11<sup>th</sup> of April, 2018 was generated. Uploads from a week before the game's release were included to account for possible pre-release reviews that some critics produce when they have gotten early access to a game, similar to the review procedure for movies (Verboord, 2013). A digital research tool called Youtube Data Tools (Version 1.08; Rieder, 2017) was used to collect those video game reviews from YouTube.<sup>3</sup> This tool has been used in several other kinds of research that needed YouTube video and Facebook data - it also has a function for Facebook (Rieder, Matamoros-Fernández, & Coromina, 2017; Matamoros-Fernández, 2017; De Sousa, 2017). Youtube Data Tools creates a list of videos based on a search query input and provides several kinds of metadata on these videos such as publishing date, length, and amount of views, likes, and comments.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> The lists were obtained from the following websites:

https://en.wikipedia.org/wiki/Category:2016\_video\_games,

https://en.wikipedia.org/wiki/Category:2017\_video\_games.

<sup>&</sup>lt;sup>2</sup> An online random number generator was used: https://www.random.org/

<sup>&</sup>lt;sup>3</sup> Youtube Data Tools website: https://tools.digitalmethods.net/netvizz/youtube/

<sup>&</sup>lt;sup>4</sup> For more information on how the tool works, see Rieder (2015).

For generating the list of videos per video game, the 'Video List' function of the tool was used. Here, a choice can be made on what criteria the videos in the list are collected; based on a YouTube channel, based on a YouTube playlist, based on a search query, or by manual selection. For the purpose of this study, the videos were collected by using the search query. The search query used for each game was "'Video Game Title' review". Since the tool uses YouTube's functionalities, this query should also result in videos that are not necessarily titled with the word 'review', but which are still reviews. Further options included having the language set to English, no region was selected, generating the maximum amount of iterations, limiting the search to the designated time frame, and ranking by relevance. This then resulted in a list of up to 500 videos for each game, as this is the maximum amount if videos that can be generated.

These lists that were generated for each game did not contain solely reviews of that game, likely because YouTube's algorithms generate a lot of clutter due to its fundamental function of relating videos to each other. A lot of gameplay and playthrough video were generated by the tool as well, for example. Therefore, the lists had to be manually screened and cleaned so that only reviews of a game were left. This was done by skimming through the list of videos looking at the channel titles, video titles, and video descriptions for factors indicating that a video was not supposed to be in the list. When something suspicious was found, the video was watched, after which it was determined whether the video could stay in the list. After the lists were cleaned, they were combined to form a single sample frame which resulted in a total of 3362 videos.

From this sample frame, the final sample of 150 reviews was generated by again using a random number generator. The videos that were sampled were checked again to see whether they were useful reviews for this study. A total of 31 reviews had to be resampled because they turned out to not be reviews at all - even though they were titled that way; no commentary was given; or the review was in a language other than English. The final sample consisted of reviews of 54 different games, with the most frequent games being 'Prey', occurring 10 times, and 'Nioh' and 'Titanfall 2', both occurring 9 times. This restates that the nature of the sampling was to obtain a random sample of reviews for games with some amount of prominence; the goal was not to get a review for each single game, as this would have led to a less random sample. The average length of the videos was 627.57 seconds (SD = 520.57), which is about 10.5 minutes. The average amount of views for the reviews was 25,295.33 (SD = 118,302.72).

### 3.2 Operationalisation

The coding frame for the content analysis and other variables for which data was collected were mostly based on and adapted from the theory discussed before. The professional – consumer

dichotomy is especially important for answering all the research questions. The codes for this were mainly based on Verboord's (2013) coding of the discourse of critic reviews of films. He argues that there are five dimensions that can be coded for a review's discourse which will indicate the level - ranging from consumer to professional - of the review, namely (1) the perspective of a critic, (2) the discussion of the most important contributors to film - here video game -, (3) the aesthetic disposition, (4) meta-arguments, and (5) the words and phrasings. Verboord (2013) divides these dimensions into fifteen items for both high art discourse and popular aesthetic discourse.

Since these codes are based on film reviews, they had to be adapted to the context of video games, where also gameplay mechanics are an important element of the medium. Most of the codes translated well to video games, however, there were a few that needed to be changed. The items that included the word 'director' were changed into having the word 'developer' as video games generally do not have one single person that holds the creative power, with some exceptions. Furthermore, the item 'Discussion of form aspects' was coded as being present in a review when there was a deep and quality discussion on the art style and the gameplay mechanics of the video game. Lastly, items where the word 'actor' was used, were changed to include the word 'voice actor' since games don't generally have live-action portrayals of actors. All of the discourse items were coded as dichotomous variables where 1 stands for a review including the item and a 0 for when a review does not include an item.

One other variable from the same research that was used for this study is an, what Verboord (2013) calls, explanatory variable of discourse employment, namely the 'institutionalisation of the critic'. In his study, Verboord (2013) measured this institutionalisation by using three separate variables, namely the medium on which the review was published, the experience of the critic, and the institutionalisation of the media title which the critic worked for. For this study, only the second variable was used to measure the institutionalisation. The first variable, the medium, was not included as each review used the same medium. The third variable, the media title, was not included due to the limitations of YouTube and because it would have been too time consuming to research the measures used for this variable. The institutionalisation of the critic was thus measured by counting the total amount of reviews on the YouTube channel on which the review occurred, which is similar to how Verboord (2013) partly measured institutionalisation, namely via the number of reviews published by a media title. Using only one part of Verboord's (2013) institutionalisation variable is a quite limited operationalisation, however, it should still be a somewhat valid indicator for how much resources, such as time and money, a critic has put into producing the reviews.

Another source from which variables were adapted was Hu et al.'s (2008) study. In that study, the quality reputation of a reviewer was measured by averaging the usefulness indicator from

every review of a reviewer. As discussed in the theory chapter, the like/dislike function on YouTube is quite similar to this usefulness indicator often used in online text based reviews. However, to measure it over all reviews by a reviewer would be too time consuming. Therefore, the like to dislike ratio was measured for the review itself as an indicator of the quality reputation. Additionally, the number of channel subscriptions for the YouTube channel on which the review was posted was measured, as this could also be an indication for the reviewer quality, as discussed in the theory chapter.

In the same study, Hu et al. (2008) measured the exposure of a reviewer by counting the total number of reviews produced by a reviewer. However, since the number of reviews of a reviewer was already used for the institutionalisation of a reviewer, a different measure was used for this study, namely the amount of views for the review. Since the reviewer exposure revolved around the popularity of the reviewer on a platform, the view count should then be a good alternative.

As discussed in the theory chapter, it can be argued that the discourse of a review is not the only factor that can determine whether it is professional or consumer based, as there are also visual factors that could indicate this. However, because video reviews have not been studied much before, the rest of the coding frame was constructed specifically for the purpose of this study. As the review medium is video opposed to text, it should be easier to observe visual factors that indicate some form of professionalism. The name of the variable that describes this in this research is review production quality, which was then also included in the content analysis. This variable consists of a number of factors that should indicate a level of resources the reviewer has used to create the video review. These factors include the use of a green screen, studio, microphone that is visible, and a static camera, the lighting, sound, and video quality, whether the video had been edited, music was used, gameplay was shown, and whether the reviewer was shown on screen, and lastly the amount of people performing the review. All except four of these factors were measured using a dichotomous variable. The lighting, sound, and video quality were measured on a scale from 1 to 3 where 1 = bad, 2 = neutral, and 3 = good. The amount of people was measured by counting.

The valence of a review was split into two variables, namely the general attitude of the reviewer towards the product, and the grade given in the review. Attitude was measured on a scale of 1 to 3 where 1 = negative, 2 = neutral, and 3 = positive. When a grade was given in a review, the grade was recorded. Grades on a different scale than 1 to 10 were converted to be applied on a scale from 1 to 10. Other variables such as the length of a video, the amount of comments, the

<sup>&</sup>lt;sup>5</sup> For a more detailed explanation on the coding frame of the discourse, production quality and other characteristics of the review, see Appendix A.

amount of likes and dislikes, and the amount of views were automatically collected by the Youtube Data Tool. Lastly, an exploratory variable was recorded that has not been discussed in the theory, namely one that measures whether a review was structured based on elements discussed around the video game. Video game reviews often employ a structure of discussing each element of the game, such as the graphics, story, and gameplay separately. During the content analysis the structure variable was recorded as a dichotomous variable with 1 = a structure is present and 0 = structure is not present.

#### 3.3 Data Collection

As mentioned before, for a number of the variables used in this research, the data were collected together with the collection of the sample with the Youtube Data Tool. The specific, relevant, data that was collected by the tool was the duration of the video in seconds, the view count of the video, the like and dislike count of the video, and the amount of comments on a video. The actual content analysis was performed by a coder with a small amount of experience with this method, but who was very familiar with the content that was analysed. A total of around 25 hours of video was analysed for this study. Each video was watched by the coder after which the values for each code were entered in an data file.

The number of subscribers for the channel on which the review was posted was obtained by going to the channel page where the number is displayed and entering the number into the data file. The number of reviews done by the critic was obtained by again going to the channel page for each video and on this page going to the 'playlists' section. Here, most reviewers had created a playlist of all of their reviews with the number of videos in the playlist displayed. If the reviewer had not made a playlist, the number was obtained by going to the 'uploads' section and using the search function of the browser to search for 'review' or a similar word the reviewer used. The number of results were then entered into the data file. Noise in this data as also described in the 'sampling section' was accounted for.

# 3.4 Validity and Reliability

Since all the codes and variables were either adapted from previous research to fit the context of this study or were constructed for this research, and because video games as media are likely not as culturally established as books and movies, there might be some issues with the reliability and validity of those codes and variables. The level of validity of the measurements is somewhat

increased by the fact that they have been used in previous research, mainly that of Verboord (2013) and Hu et al. (2008), although they have been adapted to fit the purpose of this study.

The reliability was tried to be improved by constantly reflecting on how the codes were implemented for each review and retrospectively adjusting the values if needed. Furthermore, by explaining the coding process as clearly as possible, the reliability of the measurements should have been improved. Unfortunately, an intercoder reliability test was not performed for the codes included in the content analysis due to time constraints and limited resources. This problem should be somewhat covered since most codes did not require much interpretation. For the codes on the discourse in reviews and the production quality of the review, reliability analyses were performed. Those are reported in the results chapter, because they directly relate to the objectives of this study.

### 3.5 Data Analysis

For the analysis of the data, Pallant's (2016) guidelines for statistical analyses were followed. Version 20.0 of SPSS was used to generate the results. To answer the main research question of this study, a factor analysis was performed on the discourse codes as this shows whether video game reviews on YouTube follow the high art – popular aesthetic dichotomy by showing which items load together. If the items do not load in a dichotomous way, the factor analysis will show which items stick together which gives an indication on how online video reviews are performed. Reliability analyses were performed on components of the factor analysis to see whether the items within the components measure the same construct (Pallant, 2016). The same was done to the codes of production quality. Since most hypotheses involve testing a relationship between two continuous variables, mostly linear regression analyses were performed. However, for some hypotheses and more exploratory analyses, groups had to be compared and effects of continuous variables on categorical variables were tested, which means that t-tests, ANOVAs, and logistic regressions were included as well, as can be seen in the next chapter.

This chapter on the method of this research thus acted as a precursor for the next chapter where the processes described above have been applied. In this chapter the main research method, a quantitative content analysis, and the reasons for why it was used were explained. Furthermore, the process of sampling 150 online video reviews on video games from 2016 and 2017 was described. How the variables and codes used in the content analysis were measured was explained in the operationalisation, after which the collection of the data was described in detail and a discussion on the validity and reliability of the measures, which can be improved, was provided. Lastly, the different data analyses used to answer the research questions and to test the hypotheses were presented. The results of these analyses are presented and discussed in the next chapter. The

reason for why the factor and reliability analyses are reported in the results chapter is because the results of these analyses are used to answer the main research question.

# Chapter 4: Results

In this chapter the results obtained by applying the method described before will be presented. These results are thus the basis for answering the research questions formed for this research. The structure of the chapter will mainly follow the order of the research questions stated in the introduction and the hypotheses formulated in the theory chapter. This means that first the main research question, which questions whether and how the professional – consumer review dichotomy exists in video game reviews on YouTube, is examined by presenting the results of the content analysis with mainly factor analyses. After this, all the hypotheses are tested and the results will be presented. Most hypotheses fall under one of the sub research questions. Lastly, some exploratory analyses will be presented, which could help to answer multiple questions.

#### 4.1 Video Game Review Discourse Fit

First, the results of the content analysis regarding the discourse employed in the video game reviews on YouTube are examined. Table 4.1 shows how often each of the reviewer discourse items occurred as a percentage of the total amount of 150 reviews. There are some notable observations that can be made here. Among the high art discourse items, there are two that stand out in how often they appeared across the reviews, namely 'Comparison of other games' and 'Discussion of form aspects'. The occurrence of 'Comparison of other games' is probably due to on the one hand games being sequels, which would result in the reviewer comparing the game to the previous one, and on the other hand there might be video games that are regarded as staples of the medium, or at least for a specific genre of the medium, which the games that are being reviewed are compared to. The high frequency of 'Discussion of form aspects' could be explained by how form aspects such as the art direction and gameplay mechanics can be a significant factor that influences the evaluation of a video game.

Another interesting point to note is the complete lack of 'Expression of anti-entertainment' and 'Usage of words referring to author theory' high art discourse items across all reviews. The lack of 'Expression of anti-entertainment' is likely due to how an ubiquitous quality of video games is that they are consumed as entertainment; they need to be fun to play. However, there are some games, like the genre of 'serious games', that are not necessarily produced to be entertaining, which might mean that the sample of video games might just not have included such a game. The lack of 'Usage of words referring to author theory' can be explained by how games generally are not perceived to

be the creative product of one specific person, but by a team of developers, although there are some exceptions.

For the popular aesthetic discourse, there are two items that appear in almost all reviews, namely 'Reference to own watching experience' and 'Usage of first person perspective'. The reason for this is likely that video games are virtually the ultimate example of an experience product, which apparently means that it is essential for a reviewer to reference his or her own playing experience. The fact that these two items both appear the most is fairly logical as a person describing his or her own experience will likely use a first person perspective.

There are also two items in the popular aesthetic discourse that appear in almost none of the reviews, namely 'Negative stance towards art / innovation' and 'Negative reference to institutional expertise'. The lack of 'Negative stance towards art / innovation' could be explained by how video games are a product of technology and this technology is ever evolving. Therefore, it might be the case that reviewers, even the ones who employ a popular aesthetic discourse, actually expect a game to be innovative. The lack of 'Negative reference to institutional expertise' might either be because institutional is actually regarded somewhat positively and reviewers employing a popular aesthetic agree with it, or reviewers using a popular aesthetic discourse might want to be regarded as the institutional experts.

Table 4.1 Frequencies of high art and popular aesthetic discourse items across online video game reviews

High Art Items	Frequency	Popular Aesthetic Items	Frequency	
	Percentage		Percentage	
HA1: Mix Positive / Negative	59.3%	PE1: User orientation	69.3%	
Statements				
HA2: Game is interpreted	25.3%	PE2: Reference to own playing experience	92.7%	
HA3: Discussion of game in terms of intelligence	57.3%	PE3: Reference to own expectations	34.7%	
HA4: Mentioning of developer	35.3%	PE4: Practical advice/remarks	42.0%	
HA5: Discussion of performance of developer	34.0%	PE5: Mentioning of voice actors	4.0%	
HA6: Comparison of other games	66.7%	PE6: Discussion of performance of voice actors	12.0%	
HA7: Discussion of form aspects	78.0%	PE7: Discussion of game in terms of authenticity / credibility / consistency	76.7%	
HA8: Positive discussion of game in terms of innovation	28.0%	PE8: Negative stance towards art / innovation	0.7%	
HA9: Expression of anti- entertainment	0.0%	PE9: Expression pro-entertainment	36.0%	
HA10: Positive reference to institutional expertise	2.7%	PE10: Negative reference to institutional expertise	0.7%	
HA11: Usage of high-art terms	6.7%	PE11: Directly addressing the reader	59.3%	
HA12: Usage of critical terms	34.0%	PE12: Directly addressing the developer	2.7%	
HA13: Usage of words signalling knowledge of institutional hierarchy	4.0%	PE13: Breaching language norms	30.0%	
HA14: Usage of words referring to author theory	0.0%	PE14: Usage of first person perspective	93.3%	
HA15: Usage of words signalling subtlety	10.0%	PE15: Usage of words signalling lack of subtlety	56.0%	

Next, a factor analysis was performed on the discourse items to see whether they follow the dichotomy of high art / popular aesthetic, and whether they follow the sub dimensions of these categories. A Principal Components extraction was used with Varimax rotation based on Eigenvalues (> 1.00), KMO = .632,  $\chi$ 2 (N = 150, 378) = 906.68, p < .001. The model explained 67% of the variance in discourse employment. The factor loadings of the individual items onto eleven different factors are presented in table 4.2.

The fist factor included a total of six items that do not show an immediate and apparent underlying concept, as these seem to be the items that occurred the most often across all video game reviews, looking back at table 4.1. This could mean that these six items are the general 'building blocks' of most video game reviews on YouTube, which is why this factor was called *General Evaluation*. This grouping was found to be reliable with lenient criteria, Cronbach's  $\alpha = .67$ .

The second factor included a total of four items that all fall under the high art discourse category, specifically the evaluative type of discourse. It thus seems that this grouping of items constitutes the specific high art discourse in online video game reviews, which is why this factor was called *High Art Evaluation*. The grouping was found to not be reliable, Cronbach's  $\alpha = .56$ .

The third factor included three factors that all indicate how a reviewer addresses the audience, which is why this factor was called *Audience Orientation*. This factor was found to be reliable with lenient criteria, Cronbach's  $\alpha = .68$ .

The fourth factor included two items that were related to the reviewer taking his or her own perspective on and experience of the game, which is the reason for why this factor was called *Reviewer's Perspective*. The factor was found to be reliable, Cronbach's  $\alpha = .78$ .

The fifth factor includes three items that are linked to how a reviewer focuses on a game's developer and its reputation, which is why this factor was named *Developer Focus*. This factor was not found to be reliable, Cronbach's  $\alpha = .30$ .

The sixth factor consists of three items that all relate to the language used in high art discourse. For this reason, this factor was called *High Art Language*. The reliability of this factor was found to be not adequate, Cronbach's  $\alpha = .49$ .

The eighth factor was composed of 2 items that revolved around a discussion of the voice actors (VA) featured in the video game. Therefore, this factor was named *VA Focus*. The factor was not found to be reliable, Cronbach's  $\alpha = .57$ .

The ninth factor consisted of two items that both fall under the language type of popular aesthetic (PE) discourse, which means this factor was called *PE Language*. This factor was not found to be reliable, Cronbach's  $\alpha$  = .41. The rest of the factors consisted of only one item, likely due to their very low frequency. These factors were given no name and will not be used further.

Table 4.2 Factor and reliability analyses for online video game review discourse items; suppression below .30; sorted by loadings

Items	General	High Art	User	Reviewer's	Developer	High Art	VA	PE
	Evaluation	Evaluation	Orientation	Perspective	Focus	Language	Focus	Language
HA1: Mix Positive Negative Statements	.672			.337				
HA6: Comparison of other games	.670							
HA7: Discussion of form aspects	.630			.350				
PE7: Discussion of game in terms of	.619							
authenticity / credibility / consistency								
HA3: Discussion of game in terms of	.495	.428						
intelligence								
PE3: Reference to own expectations	.418							
HA2: Game is interpreted		.710						
HA8: Positive discussion of game in		.572						
terms of innovation								
HA4: Mentioning of developer		.571						
HA12: Usage of critical terms		.534						
PE1: User orientation			.832					
PE11: Directly addressing the reader			.824					
PE4: Practical advice / remarks			.590					
PE2: Reference to own playing				.870				
experience								
PE14: Usage of first person perspective				.834				
HA10: Positive reference to institutional					.804			
expertise								
PE12: Directly addressing the developer					.539			
HA5: Discussion of performance of		.432			.471			
developer								

HA15: Usage of words signalling subt HA11: Usage of high-art terms HA13: Usage of words signalling knowledge of institutional hierarchy					.349	.760 .744 .447		
PE6: Discussion of performance of vo	oice						.848	
actors							727	
PE5: Mentioning of voice actors							.727	
PE15: Usage of words signalling lack subtlety	of							.761
PE13: Breaching language norms								.698
Eigenvalue	3.71	2.49	2.02	1.79	1.54	1.39	1.31	1.19
Cronbach's Alpha	.67	.56	.68	.78	.30	.49	.57	.41

### 4.2 Video Game Review and Reviewer Characteristics

Before the first hypothesis could be tested, a factor analysis was performed on the production quality items to see whether there were any underlying constructs and to see if the items could be used as a scale. A Principal Components extraction was used with Varimax rotation based on Eigenvalues (> 1.00), KMO = .744,  $\chi$ 2 (N = 150, 66) = 972.78, p < .001. The model explained 68.7% of the variance in the production elements used. The factor loadings of the individual items onto four different factors are presented in table 4.3.

The first factor, named *Presenter Style*, included four items that all relate to a video style where a person is in front of the camera performing the review of the video game. The reliability analysis shows that this is a reliable scale, Cronbach's  $\alpha$  = .82. Since this seemed to be a reliable differentiating factor for production quality, this scale was used in later tests.

The second factor, named *General Video Production*, included three items that were interpreted as a somewhat prerequisite for video production. It was found that this scale was not reliable, Cronbach's  $\alpha = .58$ .

The third factor consisted of three items that were linked to a podcast style video production where people sit together around a table with microphones and talk about the video game. Therefore, this factor was called *Podcast Style*. A reliability analysis showed that this scale was not reliable, Cronbach's  $\alpha = .42$ .

The fourth and last factor included two items do not necessarily show an underlying concept or construct, but do make sense together. When gameplay is shown, it is likely that capture software was used, which generally outputs quality video. This scale was unreliable, Cronbach's  $\alpha = .52$ .

Table 4.3 Factor and reliability analyses for online video game review production quality items; suppression under .30; sorted by loadings

Item	Presenter Style	<b>General Video Production</b>	Podcast Style	Gameplay Footage
Lighting Quality	.955			
Person on screen	.954			
Static Camera	.942			
Studio	.512		.350	
Editing		.781		
Sound Quality		.718	.322	
Music		.668	391	
Amount of people			.773	
Microphone	.360		.510	333
Green Screen	.378		.401	
Gameplay				.932
Video Quality		.399	.372	.590
Eigenvalue	3.71	2.20	1.24	1.10
Cronbach's Alpha	.82	.58	.42	.52

To test hypothesis 1 that states that the institutionalisation of a critic has a positive effect on the production quality of a video game review on YouTube, a linear regression was performed with production quality as the dependent and institutionalisation as the independent variable. The regression model was found to be not significant, F(1, 146) = 1.58, p = .211,  $R^2 = .01$ . Therefore, hypothesis 1 was rejected. This means that no evidence was found for the assumption that the more a critic is institutionalised, i.e. the more videos they made, the higher the production quality of their review.

To test the second hypothesis, which stated that on the one hand the institutionalisation of a critic would have a positive effect on the amount of high art discourse items found in a video game review on YouTube (H2a), and on the other that the institutionalisation of a critic would have a negative effect on the amount of popular aesthetic discourse items found in a video game review on YouTube (H2b), two linear regressions were conducted, with for each the institutionalisation as the independent and the amount of discourse items as the dependent variable. The regression model for H2a was not significant F(1, 146) = 0.88, p = .351,  $R^2 = .01$ . This means that hypothesis 2a was rejected. The regression model for H2b was not significant either, F(1, 146) = 1.42, p = .236,  $R^2 = .01$ . This means that hypothesis 2b was rejected as well. The institutionalisation of a critic has thus no effect on what kinds of discourse is used in video game reviews on YouTube.

In order to test hypothesis 3 which states that the average amount of high art discourse items is significantly less than the average amount of popular aesthetic discourse items found in video game reviews on YouTube, a paired samples t-test was performed. The mean amount of high art discourse items (M = 4.41, SD = 2.55) was significantly lower than the mean amount of popular aesthetic discourse items (M = 6.10, SD = 1.92), t(149) = -6.87, p < .001. Hypothesis 3 was thus confirmed. This means that, as expected, in video game reviews on YouTube, a discourse is used that employs more popular aesthetics than high art.

Hypothesis 4, which stated that the institutionalisation of a critic (H4a, H4d) and high art discourse (H4b, H4e) have a negative effect, and popular aesthetic discourse has a positive effect (H4c, H4f), on the attitude (H4a-c) and rating (H4d-f) of a video game review on YouTube, was tested using both ordinal and linear regressions. For testing H4a, H4b, and H4c, an ordinal regression was conducted with attitude as the dependent and institutionalisation, high art discourse, and popular aesthetic discourse as the independent variables. The results are presented in table 4.4. The model was found to be significant,  $\chi 2$  (N = 150, 3) = 8.37, p = .039, explaining between 6.5% (Cox and Shell R square) and 7.3% (Nagelkerke R squared) of the variance in attitude. These low R squares can be explained by how the attitude of a reviewer towards a video game can be explained by far more important factors such as the reviewer's actual playing experience. Only one of the independent

variables made a unique statistically significant contribution to the model, namely the amount of popular aesthetic discourse items, which had an odds ratio of 0.77. This indicated that video game reviews which employ a more popular aesthetic discourse are 0.77 times as likely to have a more positive attitude on the video game under scrutiny. These results reject H4a, H4b, and H4c. This means that neither the institutionalisation of a critic nor a high art discourse employed in reviews influences the attitude towards a video game under the scrutiny of the review. Furthermore, the results show that the more a video game review on YouTube uses popular aesthetic discourse, the less likely it is to have a more positive attitude towards the video game, which goes against theoretical expectations.

Table 4.4 Ordinal regression model for predicting video game review attitude

	Estimate	S.E.	Wald	Df	р	Odds	95.0% C.I. fo	or Odds Ratio
						Ratio	Lower	Upper
Institutionalisation	0.00	0.00	0.01	1	.917	1.00	1.00	1.00
High Art Discourse	-0.08	0.08	1.17	1	.280	0.92	0.80	1.07
Popular Aesthetic	-0.26	0.10	6.10	1	.013*	0.77	0.63	0.95
Discourse								

Note: Significance levels: \* p< .05 \*\* p< .01 \*\*\* p< .001

For testing H4d, H4e, and H4f, a linear regression was performed with the rating of the review as the dependent variable, and the institutionalisation of the critic, the amount of high art discourse items and popular aesthetic discourse items as the independent variables. The model was not found to be significant, F(3, 58) = 0.65, p = .588,  $R^2 = .03$ . Hypotheses 4d, 4e, and 4f were thus rejected. This means that the rating by a video game review on YouTube is neither influenced by the institutionalisation of the critic, nor by the type of discourse employed in the review.

In order to test the fifth hypothesis, which states that the institutionalisation of a critic (H5a) and high art discourse in video game reviews on YouTube (H5b) have a negative effect, and the popular aesthetic discourse in video game reviews on YouTube has a positive effect (H5c) on the quality reputation of a reviewer, a linear regression was conducted with the quality reputation of the reviewer as the dependent variable, and the institutionalisation, high art and popular discourse as independent variables. It was found that the model was not significant, F(3, 130) = 0.22, p = .884,  $R^2 = .01$ . Hypothesis 5 was thus completely rejected. These results thus did not show any evidence for the influence of the institutionalisation of a critic and the type of discourse used in video game reviews on YouTube on the quality reputation of the reviewer.

Hypothesis 6, which states that the institutionalisation of a critic has a negative effect (H6a) and the quality reputation of a reviewer has a positive effect (H6b) on the exposure of the reviewer, was tested by performing a linear regression with the exposure of the reviewer as the dependent variable, and the institutionalisation and quality reputation as the independent variables. The model was found to be significant, F(2, 131) = 8.26, p < .001,  $R^2 = .11$ . The results of the regression are presented in table 4.5. Only the institutionalisation of a critic was found to be a significant predictor, with a moderate positive influence ( $b^* = .33$ , p < .001). Quality reputation was not found to be a significant predictor for a reviewer's exposure ( $b^* = .03$ , p = .683). Both hypothesis 6a and hypothesis 6b were thus rejected. This means that a reviewer will get more exposure when he or she is more institutionalised, which implies consumers would rather employ a review based on the critic's institutionalisation than on the critic's quality reputation, which in turn could mean that consumers have more trust in an institutionalised video game critic on YouTube. However, because of how institutionalisation was operationalised, these results could also just mean that a reviewer gets more exposure because of prior exposure. This then goes against the theory on that topic.

Table 4.5 Regression model for predicting reviewer exposure

	Exposure of reviewer
	Model 1 b*
Institutionalisation	.33***
Quality Reputation	.03
R <sup>2</sup>	.11

Note: Significance levels: \* p< .05 \*\* p< .01 \*\*\* p< .001

Hypothesis 7 stated that the length of a video game review on YouTube has a positive effect on the quality reputation of a reviewer. This was tested by performing a linear regression with the quality reputation of a reviewer as the dependent and the length of the video as the independent variable. The model was found to be not significant, F(1, 148) = 0.30, p = .583,  $R^2 = .00$ . Hypothesis 7 was therefore rejected. This means that just because a video game review on YouTube is longer – or shorter for that matter - , this does not mean that the review or critic is regarded as having a high quality.

To test hypothesis 8, which stated that the amount of high art discourse has a positive effect (H8a), and the amount of popular aesthetic discourse has a negative effect (H8b) on the length of a video game review on YouTube, a linear regression was conducted with the length of the video as the dependent variable and the discourse types as the independent variables. The model was found

to be significant, F(2, 147) = 7.74, p = .001,  $R^2 = .10$ . The results of the regression are presented in table 4.6. Only the amount of popular aesthetic discourse items was found to be a significant predictor for the length of the video game review, with a moderate positive effect ( $b^* = .28$ , p < .001). The amount of high art discourse item was not significant as a predictor ( $b^* = .09$ , p = .254). This means that both hypothesis 8a and hypothesis 8b are rejected. These results indicate that a video game review on YouTube that uses discourse with more popular aesthetic elements tends to be lengthier than the rest of the reviews, which was not expected based on the theory.

Table 4.6 Regression model for predicting length of video game review

	Length of review
	Model 1 b*
High Art Discourse	.09
Popular Aesthetic Discourse	.28***
$R^2$	.10

Note: Significance levels: \* p< .05 \*\* p< .01 \*\*\* p< .001

The last hypothesis that was tested, hypothesis 9, stated that the like ratio of a video game review on YouTube, i.e. the quality reputation, correlates positively with the subscription number of the channel which it is posted on. This was tested by calculating Pearson's R. It was found that the like ratio of a video game review was not significantly correlated with the subscription number of the channel, r = 0.04, p = 0.311. Hypothesis 9 was thus rejected. This result shows that there is no apparent reason to assume that the number of subscribers has the same function as the like ratio for indicating quality reputation.

### 4.3 Exploratory Analyses

In order to examine which of the variables used in this study had an effect on the engagement on a video game review on YouTube, two linear regressions were used, one where the dependent variable was the total number of likes and dislikes on a video, and the other where the dependent variable was the total amount of comments on a video. In both regressions, the independent variables were the institutionalisation of a critic, the quality reputation of the reviewer, the amount of high art discourse items, and the amount of popular aesthetic discourse items. The first regression model with the total likes and dislikes was found to be significant, F(4, 129) = 5.48, p < .001,  $R^2 = .15$ . The results of the regression are presented in table 4.7. The significant predictors in the model for

the total of likes and dislikes were institutionalisation ( $b^*$  = .26, p = .002) and the high art discourse items ( $b^*$  = .23, p = .006). The popular aesthetic discourse items ( $b^*$  = .12, p = .165) and the quality reputation ( $b^*$  = .06, p = .483) were not found to be significant. These results indicate that the higher the institutionalisation of a critic and the more the reviewer uses a high art discourse, their audience are more likely to click on either the like or dislike button, while the more a reviewer uses a popular aesthetic, and the reviewer's quality reputation does not have an effect on this part of audience engagement.

Table 4.7 Regression model for predicting total amount of likes and dislikes

	Total amount of likes and dislikes
	Model 1 b*
Institutionalisation	.26**
Quality Reputation	.06
High Art Discourse	.23**
Popular Aesthetic Discourse	.12
$R^2$	.15

Note: Significance levels: \* p< .05 \*\* p< .01 \*\*\* p< .001

The second regression model for the amount of comments was found to be significant as well, F(4, 129) = 4.22, p = .003,  $R^2 = .12$ . The results of the regression are presented in table 4.8. Here, the only significant predictor was the institutionalisation of a critic ( $b^* = .32$ , p < .001). Quality reputation ( $b^* = .03$ , p = .755), high art discourse ( $b^* = .10$ , p = .255), and popular aesthetic discourse ( $b^* = .01$ , p = .909) were not found to be significant predictors. This means that people tend to comment more on video game reviews on YouTube when the critic in the video is more institutionalised.

Table 4.8 Regression model for predicting amount of comments

	Amount of comments
	Model 1 b*
Institutionalisation	.32***
Quality Reputation	.03
High Art Discourse	.10
Popular Aesthetic Discourse	.01
$R^2$	.12

Note: Significance levels: \* p< .05 \*\* p< .01 \*\*\* p< .001

Next to the ones already tested, three new variables were tested against the quality reputation of a reviewer in order to see if these had an impact on the variable, namely the attitude of the review, whether a grade was given, and whether the review was structured. To see whether the quality reputation of a reviewer would be higher if a neutral attitude was present in the review, an ANOVA was performed. The ANOVA revealed a significant, small to medium main effect for quality reputation of the reviewer, F(2, 132) = 3.16, p = .046, partial  $\eta^2 = .05$ . The post-hoc multiple comparison test showed that only reviews with a neutral attitude and positive attitude differed significantly ( $M_{\text{difference}} = -0.07$ , p = .014). This means that the quality reputation of reviewers is higher when their attitude on a video game is positive rather than neutral.

To investigate whether the quality reputation of a reviewer would differ if a grade was given in the review, a t-test was performed. The t-test showed that for reviews where no grade was given (M = 0.92, SD = 0.15) the quality reputation of the reviewer did not differ significantly from reviews where a grade was given (M = 0.92, SD = 0.12), t(131,648) = -0.13, p = .899. This means that people do not see reviewers as having a higher quality whether or not they give a grade in their review.

To see whether the quality reputation of a reviewer differs depending on whether or not their review is structured, another t-test was conducted. The t-test showed that for reviews that were not structured (M = 0.92, SD = 0.16) the quality reputation of the reviewer did not differ significantly from reviews that were structured (M = 0.92, SD = 0.11), t(119,499) = -0.09, p = .931. This means that people do not see reviewers as having a higher quality whether or not their reviews are structured.

To examine if the professionalism of a review has an impact on whether or not a grade is given in the review, a logistic regression was performed with institutionalisation, high art discourse, and popular aesthetic discourse as independent variables and the presence of a grade as the dependent variable. The full model containing all predictors was statistically significant,  $\chi 2$  (N = 148, 3) = 8.03, p = .045, explaining between 5.3% (Cox and Snell R square) and 7.1% (Nagelkerke R squared) of the variance in grade presence, and correctly classified 64.2% of cases. As shown in table 4.9, only one of the independent variables was significant, namely the institutionalisation of a critic, which had an odds ratio of 1.00, meaning it is actually not a meaningful predictor.

To examine if the professionalism of a review has an impact on whether or not a review is structured, a logistic regression was performed with institutionalisation, high art discourse, and popular aesthetic discourse as independent variables and the presence of a structure as the dependent variable. The full model containing all predictors was statistically significant,  $\chi 2$  (N = 148, 3) = 34.36, p < .001, explaining between 20.7% (Cox and Snell R square) and 27.6% (Nagelkerke R

squared) of the variance in structure presence, and correctly classified 68.2% of cases. As shown in table 4.10, only one of the independent variables was a significant predictor, namely the amount of high art discourse items, which had an odds ratio of 1.56. This indicates that reviews where a more high art discourse is employed are 1.56 times more likely to be structured.

Table 4.9 Logistic regression model for predicting grade presence

	В	S.E.	Wald	df	р	Odds	95% C.I. fo	r Odds Ratio
						Ratio	Lower	Upper
Institutionalisation	0.00	0.00	4.54	1	.033*	1.00	1.00	1.00
High art discourse	0.02	0.07	0.05	1	.830	1.02	0.89	1.16
Popular aesthetic	-0.10	0.09	1.06	1	.303	0.91	0.76	1.09
discourse								

Note: Significance levels: \* p< .05 \*\* p< .01 \*\*\* p< .001

Table 4.10 Logistic regression model for predicting structure presence

	В	S.E.	Wald	df	р	Odds	95% C.I. fo	r Odds Ratio
						Ratio	Lower	Upper
Institutionalisation	0.00	0.00	0.09	1	.771	1.00	1.00	1.00
High art discourse	0.45	0.09	25.79	1	.000***	1.56	1.32	1.86
Popular aesthetic	-0.03	0.10	0.09	1	.763	0.97	0.80	1.18
discourse								

Note: Significance levels: \* p< .05 \*\* p< .01 \*\*\* p< .001

Even though no evidence was found that the number of subscribers of a YouTube channel has the same function as the quality reputation, it is still interesting to examine whether the professionalism of a video game review has an impact on the number of subscribers. For this purpose a linear regression was conducted with the number of subscribers as the dependent variable, and institutionalisation, high art discourse, and popular aesthetic discourse as independent variables. The model was found to be significant, F(3, 144) = 35.85, p < .001,  $R^2 = .43$ . The results of the regression are presented in table 4.11. Both institutionalisation ( $b^* = .61$ , p < .001) and popular aesthetic discourse ( $b^* = -.18$ , p = .006) were found to be significant predictors. High art discourse was found to be non-significant ( $b^* = .06$ , p = .363). This means that the higher the institutionalisation of a critic, the more people are subscribed to his or her channel, but the more a popular aesthetic discourse is used in the review, the less people are subscribed to the channel. This

implies that consumers do attach some value to the professionalism of a reviewer and somewhat disregard non-professional reviews.

Table 4.11 Regression model for predicting amount of subscribers

	Amount of subscribers
	Model 1 b*
Institutionalisation	.61***
High Art Discourse	.06
Popular Aesthetic Discourse	18**
$R^2$	.43

Note: Significance levels: \* p< .05 \*\* p< .01 \*\*\* p< .001

## 4.4 Improving Institutionalisation

From the results presented above, it can be concluded that the variable institutionalisation has likely not been measured in a way that actually represents the concept, since most hypotheses that included this variable were rejected and the ones that were confirmed can actually more easily be explained by just the number of reviews than anything related to an institutional element. It is unlikely that the theory on this concept is completely off, which means the way institutionalisation was measured in this research needed to be improved. An attempt was made to approach the way institutionalisation was operationalised in Verboord's (2013) study. In this previous study, both the amount of reviews produced by a reviewer and the amount of reviews published by the media title the reviewer works for were measured and combined, among other factors, into one variable. The other factors, namely number of critics working for the media title and the number of prizes won by the media title were unobtainable for this study as no information on the number of critics was found and no awards for video game criticism were found. However, the number of reviews by media title was collected by using the website metacritic.com which collects reviews from all available publishers.<sup>6</sup> For each review, the channel on which the review was posted was searched in this website's database. When a result came up, the number of game reviews of that media title was collected. The new institutionalisation variable that could be constructed with this data was formed by multiplying the number of reviews of the reviewer by the number of reviews of the media title.

<sup>&</sup>lt;sup>6</sup> The specific page from which the data were collected: http://www.metacritic.com/browse/games/publication/name

This new institutionalisation was then retested with most of the variables the old institutionalisation was tested with. The new institutionalisation variable was entered in a number of linear regression models as the predictor of the amount of high art and popular aesthetic discourse items, the rating by a review, the quality reputation of a reviewer, the exposure of a reviewer, the total amount of likes and dislikes, the amount of comments, and the amount of subscribers. Most of the outcomes followed the results of the old institutionalisation, with the new institutionalisation being only a significant predictor for reviewer exposure ( $b^* = .42$ , p < .001), F(1, 148) = 31.79, p < .001.001,  $R^2$  = .18, the total amount of likes and dislikes ( $b^*$  = .28, p = .001), F(1, 148) = 12.18, p = .001,  $R^2$ = .08, the amount of comments ( $b^*$  = .46, p < .001), F(1, 148) = 38.79, p < .001,  $R^2$  = .21, and the amount of subscribers ( $b^* = .97$ , p < .001), F(1, 148) = 2516.91, p < .001,  $R^2 = .94$ . These regression models did show an improved prediction power with increased R<sup>2</sup>s over the ones from the old institutionalisation. Furthermore, there was one interesting result. The regression model with the amount of popular aesthetic discourse items as the dependent variable showed to be significant, F(1, 148) = 13.74, p < .001, with the new institutionalisation having a significant negative effect on the amount of popular aesthetic discourse items ( $b^* = -.29$ , p < .001). This would then confirm hypothesis 2b; the more a reviewer is institutionalised, the less likely a popular aesthetic discourse is used in his or her reviews. These results imply that the operationalisation of institutionalisation has slightly increased by including the number of reviews published by a media title.

In this chapter, the research questions formulated in the introduction were investigated and the hypotheses constructed in the theory chapter were tested using a variety of different statistical analyses. A factor analysis on the review discourse items revealed that the discourse employed in video game reviews on YouTube follows certain constructs such as a newly developed evaluation of video games, but also what items constitute high art discourse in these reviews. The factor analysis on the production quality items revealed that a high production quality in video game reviews on YouTube consisted of a somewhat traditional media presenter style. Most hypotheses were rejected following the statistical tests, which could imply a misfit between the theory on online reviews and video game reviews on YouTube. The additional and more exploratory analyses did show some interesting results such as that the institutionalisation of a critic has a positive effect on the engagement of the audience on the review, and that consumers attach more quality to positive reviews than neutral ones. In an attempt to improve the operationalisation of the institutionalisation of a critic, it was found that indeed a higher institutionalisation leads to less popular aesthetic discourse in a review. In the next and final chapter of this thesis, these results are transformed into the answer to the research question, and their implications are discussed. Furthermore, the weaknesses of this research are analysed and propositions for future research are given.

## Chapter 5: Conclusion

The main aim of this research was to investigate the relevancy of the professional – consumer critic dichotomy, that has been used in research on online reviews throughout the years, for video game reviews posted on the online video platform YouTube. The main research question of this study was then also 'How do online video game reviews on YouTube fit within the professional review – consumer review dichotomy?'. The results of this research have shown that video game reviews on YouTube do follow this dichotomy on a small number of factors, but in general, these kind of reviews diverge quite significantly from this dichotomy, although most reviews lean towards having a style that is mostly related to consumer reviews. Video game reviews on YouTube follow the professional side through how a video game is evaluated and through the language used by the critic; they follow the consumer side by how the review is specifically oriented towards the audience, by the reviewer talking about his or her own playing experience, and again through the language used by the reviewer. However, there seems to be more prominence of a mixed type of review as is mainly shown by how all reviews seem to follow a general evaluation of the video game in the discourse, that has a combination of professional and consumer elements.

The general evaluation of video games employed in reviews on YouTube that was found from the data gathered through the content analysis consisted of discourse that included a mix of positive and negative statements, which implies that these reviews are fairly neutral, at least up to a point. Furthermore, the general evaluation included a comparison to other games, a discussion of form aspects, a discussion of the game's authenticity, credibility, and/or consistency, a discussion of the game's intelligence, and the reviewer mentioning his or her own expectations. It seems that these elements are the building blocks for most video game reviews on YouTube, which in turn might mean that, at least the intelligence of a game, its form aspects, and its authenticity, are the elements that in general determine whether a game is regarded as being of high quality.

Another finding that resulted from the content analysis was that a differentiating factor for video game reviews on YouTube regarding the production quality of the videos was he style in which the video was shot. Reviews shot in a presenter style where the lighting quality was high, a person was shown on screen, a static camera was used, and it was shot in a studio, seemed to be videos that were the product of a higher production quality, although it was also found that the institutionalisation of a critic and the discourse style of the review did not influence whether this production quality was higher. The accessibility of high quality resources that can be used to shoot videos for an online platform thus might mean that reviewers do not need a high institutionalisation to have a high video production quality.

In general, the results of this research regarding the institutionalisation of a critic, the type of discourse used in the review, and the characteristics of the review and reviewer did not follow the expectations based on the theory on online reviews. The institutionalisation of a critic only partly showed to have an effect on the type of discourse used where the higher the institutionalisation the less likely a review employed a popular aesthetic discourse. Furthermore, it did not have an effect on the attitude of the reviewer, the rating from the review, or the quality reputation of the reviewer. This implies that the importance of access to capital, connections, and other resources to critics might not be relevant in an online video game review context. Furthermore, the type of discourse used in reviews was not found to influence the rating from the review, the quality reputation of the reviewer, or the length of the review. This then implies that the type of discourse in an online video game review generally does not affect other characteristics of the review. There was however one outcome regarding the type of discourse that did follow the theory on online reviews, namely that video reviews of games in an online environment tend more towards a more popular aesthetic discourse than a high art one. The results did indeed show that the average amount of high art discourse in video game reviews was lower than popular aesthetic discourse.

Even though most results did not confirm any expectations or even showed an effect, several interesting findings emerged. First of all, it was found that video game reviews on YouTube that have a higher level of popular aesthetic discourse tend to have a negative attitude towards the video game. This goes against the theory since it suggested that consumer reviews tend to be more positive. An explanation for this outcome could be that consumer reviews not just tend towards having a positive attitude, but that they tend more towards the extremes of the attitude spectrum. It could be the case that the video games in the sample of video game reviews used for this study happened to be regarded in a more negative instead of positive way by the reviews using a popular aesthetic discourse.

The second interesting result was that when a critic was more institutionalised, the exposure of the review tended to be higher. This again goes against theory which stated that since consumers value consumer reviews higher than professional reviews, they would engage with these kinds of reviews more as well. The outcome here implies that consumers looking to buy a video game do value the institutionalisation of a reviewer as is indicated by higher exposures for institutionalised reviewers. This is somewhat supported by the outcome that showed no effect of the quality reputation of a reviewer on his or her exposure.

The more exploratory analyses that were performed on a variety of different variables showed some interesting results as well. It was found that the audience of a video game review on YouTube is more engaged with reviews of a more professional type, meaning that they are more

institutionalised and also partly that they employ more high-art discourse. Furthermore, consumers value reviewers more when the reviewer has a more positive attitude towards a video game than when the reviewer has a neutral attitude. Regarding the use of the type of discourse, it was found that reviews that employ more discourse of a high art nature tend to have more structure where each element of the video game is discussed separately. Lastly, even though no correlation was found between the quality reputation of a reviewer and the amount of subscribers of the channel on which a review was posted, the results do show that when a critic is more institutionalised, the channel tends to have more subscribers, while when a review uses more popular aesthetic discourse, the number of subscribers on the channel tends to be less. This then implies that the amount of subscribers does indicate some sort of quality that consumers attach to more professional reviews.

## 5.1 Theoretical and Societal Implications

The fact that most outcomes in this study did not agree with the theory on online reviews could have implications on this theory. First of all, the difference in consumer's value attachment to professional and consumer critics (Verboord, 2009; Zhu & Zhang, 2006) has to be re-evaluated, since the results of this study imply that professional critics are not valued more or less than consumer critics in an online video review context. This even evaluation of professional and consumer critics could mean that since video games are an example of a fairly extreme experience product in which, for some cases, a lot of money and time is invested in consuming the product, consumers value both professional and consumer reviews since employing both would reduce more uncertainty (Hu et al., 2008).

The outcomes of this study do support the theory on the discourse of online reviews. More specifically, the results show that indeed online reviews for video games employ a mix of popular and high art discourse, with a prevalence of consumer discourse over professional discourse (Verboord, 2013), which is likely due to a shift caused by the internet (Kersten & Bielby, 2012; Verboord, 2009). Furthermore, it was shown that certain discourse elements indeed differentiate depending on the type of review, but other elements, like the general evaluation of video games discussed above, are shared between most, if not all, reviews (Kersten & Bielby, 2012). The theory on the relation between the institutionalisation and the type of discourse used by the critic (Verboord, 2013), however, was only partly supported by this research. The impact of the institutionalisation of a critic on a variety of factors in general was not supported in this research. This implies that for online video reviews, the institutionalisation of a critic might not have a differentiating role anymore, which is likely the result of how, at least on an online video platform,

not many resources are necessary to produce quality reviews, which in turn means that critics have become more independent from institutions (Verboord, 2013). However, from a consumer standpoint, the institutionalisation of a critic might still be important since reviews that are a product from a more institutionalised reviewer were found to have a higher exposure. Lastly, in most cases, the type of discourse used in a review did not impact any characteristics of the review, which implies that, against what most of the theory argued (Schindler & Bickart, 2012; Chevalier & Mayzlin, 2006; Van Aart & Kersten, 2016; Zhu & Zhang, 2006), these characteristics are influenced by completely other factors outside of the reviews (Zu & Zhang, 2010).

The findings on the discourse employed in video game reviews on YouTube can also be connected to the discussion on video games being art. From the results in this study, it seems that video games, and more specifically the evaluation of video games, have evolved since the mid-2000s. Adams (2008) argued that there should be a development of a game specific aesthetic, and a game should keep challenging players aesthetically and logically in order for games to be completely regarded as art. The results that showed a general video game evaluation and a high art evaluation imply that this has happened to a degree, as reviewers have taken those factors into account in their reviews. However, Adams (2008) also argued that game reviewers should turn into game critics, and that games should have a singular creative mind behind their production. This development has not occurred yet according to the results as a popular discourse still reigns and there is a complete lack of references to author theory. This would mean that, at least according to Adam (2008), video games still have not yet matured completely as an art form.

Lastly, the theory on the quality reputation and the exposure of a reviewer, as provided by Hu et al. (2008), was not supported either by the results of this study as it was found that the professionalism or the length of a video game review on YouTube did not affect the quality reputation of the reviewer and neither did the quality reputation of a reviewer affect the exposure. This implies that the quality of a reviewer, at least on YouTube, depends on other factors that are not accounted for by the theory. The results that showed that the exposure of a review is positively affected by the institutionalisation of the critic and not by the quality reputation of the review, which goes against the theory, could be explained by how the YouTube algorithm might show reviews of more institutionalised critics more frequently to audiences, which would cause the higher exposure.

There are some societal implications of this research worth mentioning. The results of this study show that there is no clear distinction between professional critics and consumer reviewers in an online video review environment, which could imply that the role of the professional critic in society has diminished, or at least that critics in an online environment do not fill in their role the

same way as more traditional critics. However, the results also show that there is no apparent preference for consumer reviews. This then might mean that consumers also do not necessarily trust consumer reviews more than professional reviews. It thus seems that consumers employ either a mix of reviews or reviews that are of a mixed nature themselves, thus valuing the qualities of both types of reviews. This could also be valuable to marketers of video games who want to use reviewers as influencers, as the results imply that they do not necessarily have to employ either very professional critics or depend on consumer reviewers to promote the product, but rather use more mixed reviewers for this.

#### 5.2 Limitations

Even though the results of this research would imply that the theory on online reviews should be revisited and re-evaluated, the study did have some limitations to take into account. First of all, because of the limited sample size, the results of this study might not be completely representative for all video game reviews on YouTube. The sample was obtained by sampling a number of video games, and after that for each game the reviews were sampled. This means that a big number of video game titles and reviews could not be selected, which might have influenced the results. Furthermore, the manual cleaning of the data generated by the video collection tool used in this research might have introduced a level of error in that some videos that were not actually reviews could have entered the sample frame and videos that were relevant reviews could have been excluded from the sample frame on accident. Additionally, it is not completely clear how the tool generated videos from the search query. If it was – even partly – based on YouTube's search algorithm, this could have influenced which videos were sampled.

Since most codes for the content analysis and other variables in this research were adapted from previous research to fit in the context of video game reviews on YouTube, their validity and reliability could have been compromised. This applies mainly to some of the discourse items derived from Verboord's (2013) study and the institutionalisation and quality reputation of reviewers, as it is not completely clear whether the adaptation has been effective. This might then also explain the lack of significant effects found for the institutionalisation and quality reputation. An effort was made to correctly transpose the discourse items found in movie reviews onto games, however, the fit of these items for games was probably still not completely perfect. An intercoder reliability test could unfortunately not be performed due to limited resources. The way quality reputation was operationalised holds the danger that people like or dislike a video for reasons other than their evaluation on how helpful the review was. The operationalisation of reviewer exposure was limited as well, since a different indicator was used than in previous research, as this previous research used

the indicator for institutionalisation used the way in this research for exposure. Therefore there might have been collinearity between reviewer exposure and institutionalisation.

A big issue in this study was the operationalisation of the concept called institutionalisation as certain elements used to measure this concept in previous research were not obtainable for this research. The initial tests with the variable showed that the operationalisation was likely insufficient and measured more the experience of a reviewer than a connection to an institution. An attempt was made to approach a more valid measure for the variable by connecting the experience of a reviewer to the record of a media title. This resulted in a small improvement to the validity of the variable, however, it is still a limited way of measuring institutionalisation.

#### 5.3 Future Research

The results of this study bring up interesting questions regarding online video reviews that could be explored in future research on the same topic. First of all, future research that tries to emulate this study should have more resources in order to account for the limitations of this research. This would for example result in approaching a more valid operationalisation of the institutionalisation of a critic. Furthermore, this would also allow for a bigger sample of reviews, which in turn would increase the likelihood of more significant effects. This study was aimed at exploring the content and especially the discourse and some characteristics of online video reviews, but did not examine why reviewers make certain decisions regarding these elements. This could be studied in research of a more qualitative nature that for example interviews reviewers in order to find the reasons for why they include or exclude certain items related to the production quality of the review: is it because of their resources, or maybe because of how they are perceived?; or why a reviewer reviews a video game in a certain way: why do they focus on certain specific criteria? Next to the reviewer side, future research could examine how consumers evaluate video reviews, which would give answers to the speculations on for example the quality reputation of reviewers made in this research. Additionally, future studies on online video reviews might want to investigate the impact of video reviews on the sales of products, as this has not been done before, and see if it differs on any of the review characteristics mentioned in this study. Lastly, valuable future research would be an investigation of the role of YouTube's algorithm on which types of reviews are more popular, and research on how consumers employ reviews on YouTube.

This thesis tried to open up an exploration of the professionalism of online reviews on a product that is becoming a significant form of media in today's society, namely video games. Specifically video game reviews on the video platform called YouTube, which is a website used by consumers to watch videos on products trying to find information in order to make an informed

purchase decision. Previous research on online reviews had identified a dichotomy between professional critics and consumer reviewers, especially in how they use discourse in their reviews. The main goal of this study was then to investigate whether this dichotomy is relevant for video game reviews on YouTube. This was mainly done by performing a content analysis on a sample of reviews of video games from 2016 and 2017. Additional data on the video reviews were gathered as well. The results showed that, for the most part, video game reviews on YouTube do not follow this dichotomy, but follow a more mixed discourse, adapted to how video games are evaluated. Furthermore, the professionalism of reviews, a combination of how much the reviewer is connected to an institution and the discourse used in the review, did not affect the audience's reaction to the review. These results imply that theory on online reviews has to be re-evaluated for the context of video reviews, at least for reviews of video games. This all shows that video games are still in some transitional stage where their place in society is not yet complete. Furthermore, a video platform like YouTube seems to shift the way reviews are produced and regarded. Together with its algorithms, this platform could impact how cultural products or even products in general are evaluated, which in turn could have an effect on how taste is manipulated.

## References

Adams, E. W. (2008). Will computer games ever be a legitimate art form?. *International Journal of Technology Management & Sustainable Development*, 7(1), 67-77.

Alexa Top 500 Global Sites. Alexa.com. Retrieved 4 February 2018, from https://www.alexa.com/topsites

Ashley, C., & Tuten, T. (2015). Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement. *Psychology & Marketing, 32*(1), 15-27. DOI: 10.1002/mar.20761

Chevalier, J. A., & Mayzlin, D. (2006). The effect of word of mouth on sales: Online book reviews. *Journal of Marketing Research*, *43*(3), 345-354. Retrieved from http://www.jstor.org/stable/30162409

de Sousa, A. L. N. (2017). Video activism: Digital practices to narrate social movements during the FIFA world cup (2014). *Brazilian Journalism Research*, *13*(1), 38-63.

Eliashberg, J., & Shugan, S. M. (1997). Film critics: Influencers or predictors?. *The Journal of Marketing*, *61*(2), 68-78. Retrieved from http://www.jstor.org/stable/1251831

Gee, J. P. (2006). Why game studies now? Video games: A new art form. *Games and Culture,* 1(1), 58-61.

Heller Baird, C., & Parasnis, G. (2011). From social media to social customer relationship management. *Strategy & Leadership*, *39*(5), 30-37. DOI 10.1108/10878571111161507

Holbrook, M. B., Lacher, K. T., & LaTour, M. S. (2006). Audience judgments as the potential missing link between expert judgments and audience appeal: An illustration based on musical recordings of "My funny Valentine". *Journal of the Academy of Marketing Science, 34*(1), 8-18. DOI: 10.1177/0092070305281627

Hu, N., Liu, L., & Zhang, J. J. (2008). Do online reviews affect product sales? The role of reviewer characteristics and temporal effects. *Information Technology and Management*, *9*(3), 201-214. DOI: 10.1007/s10799-008-0041-2

Jacobs, R. S., Heuvelman, A., Allouch, S. B., & Peters, O. (2015). Everyone's a critic: The power of expert and consumer reviews to shape readers' post-viewing motion picture evaluations. *Poetics*, *52*, 91-103. DOI: 10.1016/j.poetic.2015.07.002

Jenkins, H. (2005). Games, the new lively art. Handbook of computer game studies, 175-189.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, *53*(1), 59-68. doi:10.1016/j.bushor.2009.09.003

Kersten, A., & Bielby, D. D. (2012). Film discourse on the praised and acclaimed: Reviewing criteria in the United States and United Kingdom. *Popular Communication*, *10*(3), 183-200. DOI: 10.1080/15405702.2012.682931

Kersten, A., & Verboord, M. (2014). Dimensions of conventionality and innovation in film: The cultural classification of blockbusters, award winners, and critics' favourites. *Cultural Sociology,* 8(1), 3-24. DOI: 10.1177/1749975513480959

Khan, M. L. (2017). Social media engagement: What motivates user participation and consumption on YouTube?. *Computers in Human Behavior, 66*, 236-247. DOI: 10.1016/j.chb.2016.09.024

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, *54*(3), 241-251. doi:10.1016/j.bushor.2011.01.005

Lange, P. G. (2007). Commenting on comments: Investigating responses to antagonism on YouTube. *Society for Applied Anthropology Conference*, *31*, 163-190.

Matamoros-Fernandez, A. (2017). Platformed racism: the mediation and circulation of an Australian race-based controversy on Twitter, Facebook and YouTube. *Information, Communication & Society, 20*(6), 930-946. DOI: 10.1080/1369118X.2017.1293130

Nath, T. (2016). *Investing in Video Games: This Industry Pulls In More Revenue Than Movies, Music. NASDAQ.com*. Retrieved 4 February 2018, from http://www.nasdaq.com/article/investing-in-video-games-this-industry-pulls-in-more-revenue-than-movies-music-cm634585

Pallant, J. (2016). *SPSS survival manual* (6th ed.). Maidenhead, England: Open University Press/McGraw-Hill.

pewdiepie YouTube Stats, Channel Statistics - Socialblade.com. Socialblade.com. Retrieved 4 February 2018, from https://socialblade.com/youtube/user/pewdiepie

Rieder, B. (2015). *Introducing the YouTube Data Tools. Thepoliticsofsystems.net*. Retrieved 4 February 2018, from http://thepoliticsofsystems.net/2015/05/exploring-youtube/

Rieder, B. (2017). Youtube Data Tools [Computer software]. Retrieved from https://tools.digitalmethods.net/netvizz/youtube/

Rieder, B., Matamoros-Fernández, A., & Coromina, Ò. (2018). From ranking algorithms to 'ranking cultures' Investigating the modulation of visibility in YouTube search results. *Convergence*, 24(1), 50-68. DOI: 10.1177/1354856517736982

Riffe, D., Lacy, S., & Fico, F. (2005). *Analyzing media messages* (2nd ed.). London: Lawrence Erlbaum Associates.

Sashi, C. M. (2012). Customer engagement, buyer-seller relationships, and social media. *Management Decision*, *50*(2), 253-272. DOI 10.1108/00251741211203551

Schindler, R. M., & Bickart, B. (2012). Perceived helpfulness of online consumer reviews: The role of message content and style. *Journal of Consumer Behaviour, 11*(3), 234-243. DOI: 10.1002/cb.1372

Siersdorfer, S., Chelaru, S., Nejdl, W., & San Pedro, J. (2010, April). How useful are your comments?: analyzing and predicting youtube comments and comment ratings. *Proceedings of the 19th International Conference on World Wide Web*, 891-900.

Smuts, A. (2005). Are Video Games Art?. Contemporary Aesthetics, 3.

The 13 Most Popular Types Of YouTube Videos. (2017). Mediakix | Influencer Marketing Agency. Retrieved 4 February 2018, from http://mediakix.com/2016/02/most-popular-youtube-videos/#gs.ofyFNFc

van Aart, K., & Kersten, A. (2016). Televisiedrama volgens kijker/criticus: Kwaliteitsoordelen in online recensies en publieksreacties over dramaseries. *Tijdschrift voor Communicatiewetenschap* (print), 44(2), 150-167.

Verboord, M. (2009). The legitimacy of book critics in the age of the Internet and omnivorousness: Expert critics, Internet critics and peer critics in Flanders and the Netherlands. *European Sociological Review, 26*(6), 623-637. DOI:10.1093/esr/jcp0

Verboord, M. (2013). The impact of peer-produced criticism on cultural evaluation: A multilevel analysis of discourse employment in online and offline film reviews. *New Media & Society,* 16(6), 921-940. DOI: 10.1177/1461444813495164

YouTube - Statistics & Facts / Statista. www.statista.com. Retrieved 4 February 2018, from https://www.statista.com/topics/2019/youtube/

Yu, Y., & Natalia, Y. (2013). The Effect of User Generated Video Reviews on Consumer Purchase Intention. *2013 Seventh International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS)*. http://dx.doi.org/10.1109/IMIS.2013.143

Zhu, F., & Zhang, X. (2006). The influence of online consumer reviews on the demand for experience goods: The case of video games. *ICIS 2006 Proceedings*, 25. Retrieved from http://aisel.aisnet.org/icis2006/25

Zhu, F., & Zhang, X. (2010). Impact of online consumer reviews on sales: The moderating role of product and consumer characteristics. *Journal of Marketing*, *74*(2), 133-148. Retrieved from http://www.jstor.org/stable/20619095

# Appendix A

Table A1. Coding Frame Video Game Review Discourse (adapted from Verboord, 2013)

Discourse Item	Measure	Explanation
High Art		
Mix positive/negative comments	1 = present, 0	Could refer to game as a whole or aspects of the game.
	= not present	
Game is interpreted	1 = present, 0	Critic tries to give meaning to game beyond simple description; e.g. "developer argues that"; "the message of the game is". Also coded as present
	= not present	when the critic discusses what the purpose of the game is , plus when more meta-discussions are presented.
Discussion of game in terms of	1 = present, 0	E.g. references complexity, multi- layered structure, serious. Refers to both story and gameplay.
intelligence	= not present	
Mentioning of developer	1 = present, 0	
	= not present	
Discussion of performance of	1 = present, 0	
developer	= not present	
Comparison of other	1 = present, 0	
games/developers	= not present	
Discussion of form-aspects	1 = present, 0	Concerns aesthetical aspects (e.g. cinematography) and not technicalities (e.g. special effects). Also refers to gameplay; a deeper discussion how the
	= not present	gameplay mechanics contribute to the quality of the game. Since 'special effects' are excluded, when a discussion on the game regarding its graphics includes the art style of the game, but not for example lighting, textures, etc., the review is coded has having this code present
Positive discussion of game in	1 = present, 0	Also coded as present when a negative attitude towards the game was present, but a positive discussion around innovation was also present.
terms of innovation	= not present	
Expression of anti-entertainment	1 = present, 0	
	= not present	
Positive reference to institutional	1 = present, 0	E.g. awards, other critics.
expertise	= not present	
Usage of high-art terms	1 = present, 0	E.g. "art," "masterfully," "virtuoso," "genius".
	= not present	
Usage of critical terms	1 = present, 0	E.g. "protagonist," "metaphor," "allegory," "symbol".
	= not present	
Usage of words signalling	1 = present, 0	E.g. "classic," "acclaimed," "indie prominence".
knowledge of institutional	= not present	
hierarchy		
Usage of words referring to author	1 = present, 0	E.g. "auteur," "opus," "study".
theory	= not present	

Usage of words signalling subtlety	1 = present, 0	E.g. "elegance," "sophistication," "subtle".
	= not present	
Popular Aesthetic		
User orientation	1 = present, 0	E.g. explicit recommendation, stating who will like it.
Oser orientation	•	E.g. explicit recommendation, stating who will like it.
Reference to own playing	= not present 1 = present, 0	
· · =	•	
experience	= not present	
Reference to own expectations	1 = present, 0	
Due stice la drice / ve se a dre	= not present	
Practical advice/remarks	1 = present, 0	E.g. worth the time/money, wait for a sale.
Marking a femina a daylah	= not present	
Mentioning of voice actor(s)	1 = present, 0	
Discouries of south and a second	= not present	
Discussion of performance of voice	1 = present, 0	
actor(s)	= not present	
Discussion of game in terms of	1 = present, 0	
authenticity/ credibility/	= not present	
consistency		
Negative stance towards	1 = present, 0	
art/innovation	= not present	
Expression pro-entertainment	1 = present, 0	
	= not present	
Negative reference to institutional	1 = present, 0	
expertise	= not present	
Directly addressing the reader	1 = present, 0	
	= not present	
Directly addressing the	1 = present, 0	
developer/voice actors	= not present	
Breaching language norms	1 = present, 0	E.g. raising voice, cursing.
	= not present	
Usage of first person perspective	1 = present, 0	Using "I".
	= not present	
Usage of words signalling lack of	1 = present, 0	E.g. "I hate," "awesome," "nonsense".
subtlety	= not present	

Table A2. Coding frame production quality and other characteristics

Item	Measure	Explanation
Green Screen	1 = used in video, 0 = not used in video	
Studio	1 = used in video, 0 = not used in video	A studio was regarded as a space specifically used and designed for filming the review.
Microphone	1 = used in video, 0 = not used in video	When a microphone was visibly used in the video.
Camera	1 = used in video, 0 = not used in video	When a static camera, likely on a tripod was used.
Lighting Quality Sound Quality	0 = N/A, 1 = Bad, 2 = Neutral, 3 = Good 1 = Bad, 2 = Neutral, 3 = Good	Not applicable when no real time camera footage was used. Bad when subjects were barely visible or lighting was very uneven, good when lighting was even and subjects were perfectly visible. Bad when the reviewer or game sound were barely audible, good when both were perfectly audible.
Video Quality	1 = Bad, 2 = Neutral, 3 = Good	Bad when the camera or gameplay footage was very pixelated, good when both had a high resolution.
Editing	1 = used in video, 0 = not used in video	Any form of editing, including cuts, picture in picture, audio edits, etc.
Music	1 = used in video, 0 = not used in video	When music was underlaid for (parts of) the review.
Gameplay	1 = used in video, 0 = not used in video	Both captured gameplay and filmed with a camera.
Person on Screen	1 = present, 0 = not present	When for most of the video, a person was presented on screen.
Amount of people	Counted on ratio level	Persons visible or audible in the video.
Attitude	1 = negative, 2 = neutral, 3 = positive	General attitude regarding (elements of) the video game, mostly based on the conclusion of the video.
Structure	1 = present, 0 = not present	Whether each element of the video game is discussed separately, e.g. first graphics are discussed, then the story, then gameplay, etc.