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Effects of Disclosures on Sponsored YouTube Videos on Children's Advertising Literacy, Brand Responses, And Perception of Sponsorship Transparency

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Abstract

Children are spending an increasing amount of time in front of screens and watching videos on YouTube is one of the things they do. Children now adore YouTube influencers (the creators of content on the platform), a new type of celebrity. Those influencers, coined 'youtubers' can reach an enormous target of children consumers. As brands are aware of this, they establish commercial partnerships with the youtubers, paying or rewarding them to create sponsored videos with native advertising throughout their YouTube content. Notwithstanding, this practice is worthy of relevant concern, as often such advertising is embedded and difficult to distinguish from regular content. Children are even more prone to not being able to recognize advertising, as their advertising literacy is still under development. As a result, some guidelines have been set requesting sponsored influencer videos to be disclosed as such. The body of research in this matter is still scarce and has mixed results, with no definitive conclusions and directions. As such, this study's contribution is to investigate the effects of the presence of a disclosure of a sponsored YouTube video on children's advertising literacy, responses to the brand, and product. Additionally, it was also examined if the level of sponsorship transparency of a disclosure (i.e., its design and formulation) impacted children's advertising recognition and mitigated possible negative effects on attitudes towards the brand and request to purchase the product. To do so, an experiment was conducted with one factor (disclosure transparency level: low, high, no disclosure/control) between-subjects design among 134 children (aged 10 to 12 years old). The results show that the presence of a disclosure can be an effective means to help children understand the commercial nature of sponsored videos, as it increases advertising recognition, understanding of the selling intent of the video, brand recall, and even the request to purchase the advertised product.

Keywords: YouTube; Influencer Marketing; Native Advertising; Children; Advertising Literacy; Sponsorship Disclosure; Sponsorship Transparency; Brand effects

Resumo

As crianças passam cada vez mais tempo em frente a ecrãs, e ver vídeos no YouTube é uma das atividades que elas mais fazem. Os mais novos admiram os *influencers* do YouTube (os criadores do conteúdo da plataforma), que são um novo tipo de celebridade. Esses *influencers*, chamados de 'youtubers', conseguem atingir um público-alvo de consumidores infantis muito grande. As marcas têm consciência disso, pelo que estabelecem parcerias comerciais com os youtubers, pagando-lhes ou recompensando-os pela criação de vídeos patrocinados e publicados no YouTube que têm publicidade nativa incluída. Contudo, essa prática é merecedora de preocupação relevante, dado que muitas vezes essa publicidade está incorporada no vídeo e é difícil distingui-la do restante conteúdo. As crianças são ainda mais propensas a não serem capazes de reconhecer a publicidade, dado que a sua literacia publicitária ainda se encontra em desenvolvimento. Como consequência, algumas diretrizes foram desenvolvidas solicitando que os vídeos de *influencers* que sejam patrocinados sejam divulgados como tal. O corpo de pesquisa neste tema ainda é escasso e com resultados diversos e, muitas vezes, contraditórios, sem conclusões e direções definitivas. Como tal, a contribuição deste estudo é investigar os efeitos da presença de uma *disclosure* num vídeo patrocinado do YouTube na literacia publicitária infantil, nas respostas à marca e ao produto. Além disso, também foi verificado se o nível de transparência da *disclosure* (isto é, o seu design e formulação) impactou o reconhecimento da publicidade das crianças e mitigou possíveis efeitos negativos nas suas atitudes em relação à marca e no pedido de compra do produto. Para isso, foi realizado um estudo experimental com um fator (nível de transparência da *disclosure*: baixo, alto, sem *disclosure*/controlo) com 134 crianças (de 10 a 12 anos de idade). Os resultados mostram que a presença de uma *disclosure* pode ser um meio eficaz para ajudar as crianças a perceber a natureza comercial dos vídeos patrocinados, dado que aumenta o reconhecimento da publicidade, a perceção da intenção de venda do vídeo, o relembrar o nome da marca e o pedido de compra do produto publicitado.

Palavras-chave: YouTube; Marketing de Influência; Publicidade Nativa; Crianças; Literacia Publicitária; *Sponsorship Disclosure*; Transparência da Parceria Comercial; Efeitos na Marca

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1. Introduction

Children nowadays have a lot of options to entertain themselves and to spend their time. Besides the traditional options of playing outside, books and toys, children now also spend their time on devices with internet connection. The Center for Disease Control and Prevention (CDC) reports that children aged between 8 and 10 years spend, on average, 6 hours a day in front of a screen, and children aged 11-14 years spend, on average, 9 hours (OSF HealthCare, 2020).

According to Ofcom, currently, half of the ten-year-olds own a smartphone, being the age of 10 an important milestone for children's ownership of these mobile devices (Office of Communications., 2020). Children mainly access the internet through the use of smartphones and tablets (Office of Communications., 2020). YouTube, which is a video-sharing website that allows people both to view videos posted by other users or upload their videos (Christensson, 2009) is one of the most used entertainment platforms by children, and a clear alternative to traditional television (Watson, 2019). Around 45% of children aged 5-15 years choose YouTube as their favorite platform to spend screen time (Office of Communications., 2020). And 80% of parents of kids aged 11 or less, from the U.S., state their kids watch YouTube (Newberry, 2021).

Children are attracted to YouTube because there they can find videos about their favorite hobbies and passions, vloggers, and community and sensory videos (Ofcom, 2019). Children spend most of their time on YouTube watching their favorite YouTube vloggers (youtubers) doing a lot of activities, like unboxing toys, playing games, reviewing products, or simply vlogging their personal lives (De Veirman et al., 2019). From their total daily screen time, children aged 4 to 15 years old spend about 1 hour and 25 minutes watching videos on YouTube (Perez, 2020).

This growing popularity and attention-grabbing capability of YouTube is, obviously, not going unnoticed by brands. Advertisers have always been looking for innovative and effective ways to convince children (and, by consequence, their parents) to buy their products but now advertising includes a very broad range of marketing approaches, such as digital advertising and influencer marketing, which is still not properly described (Radesky et al., 2020).

Influencer marketing is an approach that identifies and makes use of influencers in a market, intending to affect the purchasing decisions of the target audience (Brown and Hayes, 2008). Like any other influencer, youtubers also are reached out by brands to receive free products or be paid to promote them on their uploaded videos on the platform, as well as in their other social media profiles (De Veirman et al., 2019). Hence, the content uploaded on YouTube many times contains commercial and marketing messages, particularly in unboxing videos, reviews, and toy-played videos (Radesky et al., 2020).

The concern is that children have limited advertising literacy skills, and until the age of 12 they are a vulnerable target group (Hudders et al., 2017; John, 1999). Given their undeveloped/not fully developed critical thinking competencies, the likelihood of children being susceptible to the persuasive effects of advertising is very high (Radesky et al., 2020).

It should be noted that despite the existence of guidelines that suggest that native advertising (as is the case with influencer marketing on YouTube) must have disclosures to be perceptible - that is, commercial communications must be recognized as such and the sponsors must be recognized by the public (FTC, 2013; European Commission, 2018), currently, there is still no legislation that obliges youtuber to do it effectively, as these standards are only suggestions and not obligations. Disclosures are a way of promoting transparency in the context of native or embedded advertising (European Commission, 2018; Federal Trade Commission, 2013). Thus, transparency about advertising is self-regulated by the creators of digital content and depends on their willingness to do so or not (van Reijmersdal et al., 2020). This calls for child protection measures and concerns for increasing their advertising literacy.

Provided that advertising is constantly shifting and progressing, more research is needed to understand how children comprehend and process the new ways of advertising that target them, including social influencers (Taylor & Carlson, 2021). One example is to access to what extent are children able to identify products and sponsors in newer modes of advertising, considering their underdeveloped abilities to offset advertisement effects through the use of their disadvantaged persuasion knowledge (Taylor & Carlson, 2021). Also, research regarding the impact of influencer marketing on YouTube on children is still very scarce and required (Taylor & Carlson, 2021) and studies on the effects of disclosures and the activation of advertising literacy and brand effects are very limited (Boerman & van Reijmersdal, 2020).

Thus, the main objective of this study is to contribute to the research that supports decision-making on legislation and protection of children about YouTube's influencer marketing. It aims to investigate the effects of disclosure of sponsored YouTube videos on children's advertising literacy and if different levels of disclosure transparency lead to different results in terms of advertising literacy and brand responses. Given the scarce literature on the topic of influencer marketing, in particular in what concerns children under 12 (Boerman & van Reijmersdal, 2020), this study will focus on children aged 10-12 years old, which are children at the end of the analytical stage and the beginning of the reflective stage (John, 1999).

To accomplish the objective of the dissertation, the following investigation questions will be assessed:

- Does a sponsorship disclosure increase the recognition of the YouTube video as advertising, the understanding of its selling intent, and the understanding of its persuasive intent?
- Will a sponsorship disclosure increase brand recall and decrease brand attitude and purchase request, via the activation of advertising literacy?
- Will the predicted negative effects on brand attitude and purchase request via advertising literacy activation be mitigated by higher levels of sponsorship transparency?

To answer the research questions of this study a quantitative methodology was used. An experimental study was designed, where participants were exposed to one video with one of two stimuli or no stimuli. After the viewing, participants were asked to fill a questionnaire.

This dissertation consists of 6 sections: Introduction, Literature Review, Methodology, Results, Discussion and Implications, Limitations and Future Research. This first section seeks to explain the theme of the dissertation, its purpose and pertinence, and the research questions aimed to be answered. The second section delivers the main concepts relevant to the investigation as explained by the currently existing literature, as well as the hypotheses proposed by this study. Then, it follows a proper description of the methodology applied, detailing the phases of the empirical study. Next are presented the results of the investigation. The fifth section consists of the discussion of those results, and the sixth section comprises the main conclusions, limitations, and suggestions for future research.

2. Literature review

2.1. Influencer marketing as a new marketing approach

2.1.1. Digital advertising in general

In 1994, advertising gained a new place of delivery – the internet –, which, ten years later, gained the status of a major advertising medium due to its effective targeting and greater engagement with the consumers (Taylor, 2009). Because of developments in the media environment, over the last decade advertisers had to adjust to a new environment in an industry overloaded with countless advertising channels (Taylor & Carlson, 2021). Altogether, global digital advertising expenditure rose from 66.13 billion U.S. dollars in 2010 (Statista Research Department, 2016), to 283 billion U.S. dollars in 2018, and is expected to rise to 517 billion U.S. dollars in 2023 (Taylor & Carlson, 2021). In 2019, global digital advertising spending was 325 billion U.S. dollars, a value that dropped in 2020 due to the COVID-19 pandemic but it is expected to grow again to 389 billion U.S. dollars in 2021 (Statista Research Department, 2021). Hence, the digital advertising industry has been seeing vast growth in the last years and this growth is still yet to reach its peak (Hudders et al., 2019).

Digital advertising has made it possible for marketers and consumers to engage, interact, and connect more (Hudders et al., 2019). It can be personalized to the customer, it actively involves the consumer, it often disguises its commercial intent, and can be used to target groups of children and adolescents, which, altogether with its rapid growth, arises the need for ethical considerations (Hudders et al., 2019).

2.1.2. Social Media

The digital transformation of marketing is visible in the way customers and businesses have adopted new technologies and how those technologies have changed market behaviors, interactions, and experiences (Lamberton & Stephen, 2016). The appearance of digital marketing is one of those transformations and currently companies use social media as a strategy tool to reach consumers online (Guedes, 2018).

Social media is a complex concept but that can simply be explained as a set of websites and apps that allow people to share content, opinions, and information with other people in a quick, efficient, and instantaneous way (Hudson, 2020).

There are several social media sites and apps. According to Statista, social network platforms already have over 3.6 billion users, and this figure is anticipated to rise further, particularly in previously underserved countries (Tankovska, 2021). Statista also reveals that the most

popular social networks worldwide are Facebook (more than 2.7 billion active monthly users), YouTube (more than 2.2 billion active monthly users), WhatsApp (around 2 billion active monthly users), Facebook Messenger (around 1.3 billion active monthly users), and Instagram (more than 1.2 billion active monthly users) (Tankovska, 2021).

2.1.3. Influencer marketing

Influencer marketing is a new marketing approach that allows for unprecedented and exciting engagement and connectivity between audiences and brands via social media platforms (Childers et al., 2019).

Influencer marketing is based on the premise that consumers have always given a lot of importance to other people's opinions (Hudders et al., 2017). Brown & Hayes (2008) named those individuals capable of influencing the purchase decision as to the *influencers*. Sammis et al (2016) put that advertisers have always used celebrities to increase brand awareness, using celebrity endorsements. Hence, influencer marketing is somewhat similar to celebrity endorsement, however, the concept of *celebrity* has been reshaped and expanded further than the traditional movie and TV stars, athletes, and musicians and now includes social media celebrities as well (Sammis et al, 2016).

Thus, it is understood that “influencer marketing” is a relatively well-established concept and that “influence” can be defined broadly as the power to affect a person, thing, or course of events and “influencer” as a third party responsible to impact consumers purchasing decisions (Brown & Hayes, 2008).

Social media has brought to this world a new type of peer endorsement, the so-called *social media influencers* (or simply *influencers*), which are social media users that assembled an engaged base of followers and create content by blogging, vlogging, or other short-form content (De Veirman et al., 2017). Those followers are individuals who have made a deliberate decision to engage with the influencer and respective content on a deeper basis than is possible with conventional advertising (Childers et al., 2019). Influencers can be classified according to their number of followers: nano-influencers if less than 1000 followers; micro-influencers if between 1000-100000 followers; macro influencer if between 100000 – 1 million followers and mega-influencer if more than 1 million followers (Ismail, 2018).

Usually, influencers share a considerable part of their personal lives and give their opinions and insights on many subjects (De Veirman et al., 2017). People tend to rely more on

recommendations made by their friends or people of trust than they rely on recommendations made by brands and, even though people do not perceive influencers as “friends”, they are so used to being part of their favorite influencers lives and hearing about their likes and opinions, that they also trust influencers recommendations much more than a post that comes from a company (Sammis et al, 2016). Therefore, as put by De Veirman et al. (2019), influencer marketing joins the benefits of celebrity endorsement with eWOM. Electronic word-of-mouth (eWOM) refers to “any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet” (Hennig-Thurau et al., 2004, p.39), and, noticeably, brands pursue positive eWOM (De Veirman et al., 2017)

This approach to marketing allows brands to target different, smaller, and niche audiences by taking advantage of consumer’s trust in the social media influencer (Childers et al., 2019). Furthermore, instead of trying to avoid advertising, consumers are the ones who actively go after it (Childers et al., 2019). Influencer marketing through social media platforms is quite a popular tool among brands precisely because it can reach a lot of consumers very fast and has a lower cost when compared with traditional advertising campaigns (Phua et al., 2017).

On the one hand, advertisers must identify and reach out to those users with great influence and convince them to endorse the brand using their social media channels (De Veirman et al., 2017). To do so, brands can offer their products to the influencers and ask them to mention them or can pay them to create content aimed at advertising purposes (De Veirman et al., 2017). On the other hand, influencers should use their knowledge in a particular field (like fashion, food, gaming, technology, etc) to convince their followers or subscribers to buy the products/services of those brands (Hudders et al., 2019).

2.2. YouTube as an Influencer Marketing Platform

2.2.1. YouTube & Youtubers

YouTube is an online video platform founded in 2005 and the main idea behind it was to create a platform where regular people could enjoy sharing their “home videos” (Hosch, 2020). Presently the company is owned by Google, which acquired YouTube in 2006 (Hosch, 2020). YouTube allows for video sharing, namely for users to post, view, comment, and link to videos on the site, all free of cost (Dehghani et al., 2016). In 2015, YouTube launched YouTube Kids, which is a platform apart from the main one, which is supposedly safer for children under 13. This version of the service has more parental control features.

At the moment YouTube is the second most accessed social media, with an average of more than 2 billion monthly active users, and with 300 hours worth of video uploaded every minute globally (SimilarWeb, 2020). Additionally, the platform also holds second place for the most popular search engine in the world, only surpassed by its parent company Google (Adobe Spark, 2020). YouTube is considered a source of either education (e.g., in the form of tutorials on how to do something) or pure entertainment (Adobe Spark, 2020).

To use YouTube, one must have at least 18 years old: minors must have parental consent. However, this term of use is easily overcome if a child simply lies about his/her age when creating a profile, or if he/she uses an email from another person (De Veirman et al., 2019).

Furthermore, on YouTube there are also influencers: youtubers, also called vloggers, are the influencers who feed this particular platform with the content they create and constantly update their profiles (Ramos-Serrano et al., 2016). They are also included in the influencer marketing scope, which can also be called sponsored content, native advertising, or vlog advertising (Boerman & van Reijmersdal, 2020), and are also used by advertisers as a marketing strategic tool (De Veirman et al., 2019). Brands benefit from influencer marketing through YouTube as it allows to target certain demographics by choosing the right audiences reached by the youtubers (Wu, 2016).

Many youtubers, particularly the most influential ones, are asked by advertisers to mention and give a positive review for products in return receiving them for free or even to establish a paid partnership and create a sponsored video (Wu, 2016). In influencer marketing on YouTube, brands reach youtubers directly, hence the commercial relationships do not use YouTube as an intermediary per se (Wu, 2016). The platform YouTube seems to be supportive of those youtuber-brands relationships that are established without contacting the platform, as it brings more viewers to the platform and increases advertising revenue for the company (Wu, 2016). YouTube has its advertisements (“in-stream ads”) that are added to videos at its beginning, middle, and end, however, they are not part of influencer marketing (Wu, 2016).

Even though youtubers have a celebrity status, their subscribers consider them very relatable and close (De Veirman et al., 2017), which lends their content a genuine and modest sentiment which could be a significant marketing asset (Wu, 2016). Marketing in YouTube is much more effective than traditional marketing as consumers often do not associate

YouTube videos with advertisements or commercials (Wu, 2016). Those social media influencers can become very famous and attract millions of subscribers and build real impressive communities (Boerman & van Reijmersdal, 2020; De Jans et al., 2018a). YouTube has gained a lot of popularity over the last few years precisely due to the burst of professional vloggers or youtubers (Viertola, 2018).

2.2.2. Kids & YouTube

YouTube is one of the most used entertainment platforms by children, and a clear alternative to traditional television (Watson, 2019). One of the reasons why YouTube is so widely used by children is because it has a very simple and intuitive interface, which allows even small children to access their favorite content even on the main platform (Elias & Sulkin, 2017). Children as young as 2-3 years old can easily activate the next video from the playlist or suggestions by themselves (Buzzi, 2011).

The results of a study by Pew Research Center in 2019 state that YouTube videos aimed at children's audiences or that have a child under 13 appearing on the video have triple the views on average as other types of videos (Kessel, Toor, & Smith, 2020). These numbers explain why the brands of products for children now use this platform as an important way of promoting them (Elias & Sulkin, 2017).

Children spend their time on YouTube watching their favorite youtubers doing a lot of activities, like vlogging their personal lives (called vlogs), unboxing toys or technology, reviewing products, or even other types of videos such as playing video games, performing pranks, or showcasing musical talents (Boerman & van Reijmersdal, 2020; De Veirman et al., 2019). Any of these may contain commercial messages, particularly those unboxing, reviews, and toy-played videos (Radesky et al., 2020).

Sponsored vlogs are youtuber's vlogs that contain advertising in exchange for compensation (De Jans et al., 2018a) but they usually are quite indistinguishable from the other non-sponsored daily vlogs of that youtuber (De Jans & Hudders, 2020). Unboxing videos are another popular type of video in which the influencers, either adults or kids, film themselves opening brand new packages of products (usually toys or technology), unpacking them, and talking about their first impressions of the products (Nicoll & Nansen, 2018). Product review videos consist of youtubers giving their opinion and experiences about the quality and/or performance of a product and their eventual recommendation (Fitriani et al., 2020). Product review videos are the second most popular type of YouTube videos, only before commentary

videos (Sukhraj, 2021). Whatever the type, in a sponsored youtube video the youtubers receive compensation (free products or financial payment) and the videos mimic and blend with non-advertised content (De Veirman et al., 2017).

Kids usually just watch youtubers' videos to entertain themselves (De Veirman et al., 2019). Nonetheless, youtubers' videos may become a source of information for children in terms of consumption decisions as social media celebrities often talk about what brands and products they use, like, recommend, or the opposite (Martínez & Olsson, 2019). Hence, sponsored content on YouTube can affect children's brand preferences (De Veirman et al., 2019).

Moreover, nowadays many children want to pursue a career as a youtuber so that they can achieve a lifestyle similar to the one they believe youtubers have (De Jans et al., 2018a). Interestingly, this trendy career desire is mainly present in children from developed countries (Chambers et al., 2018).

2.2.3. YouTube in Portugal – a brief overview

In Portugal, the phenomenon of youtubers is considered recent (Coutinho, 2018) but worrisome, given that the majority of audiences are children and teens, therefore, very vulnerable and permeable (Lopes, 2018). Some of the biggest national youtubers target an audience aged 10 to 15 years old (Wong, 2018). Some of these content creators claim that their work has more views than radio and television and that several companies are interested in them because of their reach (Wong, 2018).

Youtubers build their communities of subscribers and can mobilize multitudes of people, and the influence they manage to exert on the behavior of children and young people is an unprecedented phenomenon, which often surpasses their parents (Westenberg, 2016).

Table 1 lists the Portuguese channels with the highest number of subscribers. All have an audience dominated by children and teenagers, with only the WildBrain channel in Portuguese being specifically for children and available in the YouTube Kids app - all others are available in the main app and without restrictions.

Table 1: Top 5 YouTube Channels in Portugal (March 2021). Source: Social Blade, available at <https://socialblade.com/youtube/top/country/pt/mostsubscribed>

Username	Category	Number of subscribers
SirKazzio	Entertainment	5.01M
D4rkFrame	Entertainment	4.96M
WildBrain Em Português	Film	3.9M
Wuant	Entertainment	3.69M
Fer0m0nas	Gaming	3.27M

Some of these famous youtubers - namely SirKazzio, D4rkFrame, and Wuant - have several characteristics in common, such as the target audience of children and teenagers, the creation of humorous content, video games or vlogs, and the fact that they are young adults themselves, but present themselves with an outfit and appearance that does not reflect their real age (Ribeiro, 2019). In many of the videos, youtubers exhibit childish behaviors and desires (such as spending several hours playing popular video games among children), use hysterical and expressive language, and convey the feeling that they are freed from a busy life (Ribeiro, 2019).

Besides their YouTube channels, Portuguese youtubers also have a strong social media presence, publish books or magazines, and are the face of many advertisements (Coutinho, 2018). The success of those content creators and the appearance of a great life are some aspects that make many of the younger Portuguese viewers also wish to become a youtuber (Wong, 2018).

2.3. Children as Consumers

Individuals go through many transformations in terms of cognitive and social growth during adolescence, and they begin to prepare themselves to take on the role of consumers (John, 1999). Consumer socialization can be defined as “processes by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace” (Ward, 1974, p. 2).

John (1999), in a retrospective study that included several stage theories of social and cognitive growth – such as Piaget’s theory of cognitive development -, further developed the

idea that consumer socialization is a developmental process that goes hands-by-hands with the maturation of children into adult consumers. That process contemplates 3 stages: perceptual stage (children aged 3 to 7 years old), analytical stage (7 to 11 years old), and reflective stage (11 to 16 years old) (John, 1999). Briefly, in the perceptual stage, the consumer knowledge of children is very limited, based on a single attribute or dimension and their observations; their development of social skills makes them having egocentric perspectives, proving to have difficulties in thinking about perspectives other than their own (John, 1999). In the analytical stage, children develop to have more complex and detailed knowledge about the marketplace and decision-making process and can consider perspectives beyond their own (John, 1999). The reflective stage makes children increasingly more educated about the marketplace and with more complex processing and social skills and brings them awareness to other people's perspectives (John, 1999).

This present study is mainly focused on the analytical stage and the beginning of the reflective stage as we will see in the methodology section.

Children's unripe critical thinking skills and impulse inhibition enhances their susceptibility to the persuasive effects of advertising (Radesky et al., 2020). Older children and teenagers may be able of recognizing advertising but, when it is inserted in things they trust, like social networks or social media accounts they follow, they often cannot endure it (Radesky et al., 2020). Children easily identify with famous influencers and want to incorporate their attitudes, beliefs, and products used (De Veirman et al., 2019).

Throughout childhood, children are exposed to a variety of advertising that conditions their tastes and preferences, to create brand loyalty as they grow older (De Veirman et al., 2019).

2.4. Disclosures and Advertising Literacy

2.4.1. The current regulation (and why it is not enough)

The context of native advertising and embedded advertising has made it nearly unfeasible for audiences to acknowledge if digital content has a commercial and persuasive intent or not (van Reijmersdal & Rozendaal, 2020). Influencer marketing on YouTube has contributed to this increased difficulty as, namely, it may be very demanding to understand if a given youtuber is talking well about a product because he/she truly likes and recommends the product or if the compliment and praise was in exchange for payment (van Reijmersdal & Rozendaal, 2020).

To assist consumers to distinguish when digital content is sponsored, some guidelines and norms have been developed in some countries (e.g., the Federal Trade Commission [FTC]'s Clear and Conspicuous Standard in the US; the revised Audiovisual Media Services Directive (AVMSD) in the EU; European Advertising Standards Alliance [EASA], 2018). Those directives state that communications with commercial intent, such as sponsored influencer videos, should be disclosed as such and sponsors should be made clear to the audiences (De Jans, Vanwesenbeeck, et al., 2018). For instance, FTC enforces disclosure obligations and legal liability on companies and content creators and recommends that an advertising disclosure, when being formulated, should consider the prominence of the disclosure, whether it is avoidable, and whether the language of the disclosure is understandable for the intended audience (Federal Trade Commission (FTC), 2013). The AVMSD requires platforms to compel content uploaders to properly declare when their content involves advertising and to ensure viewers are aware of it (Viola, 2018).

Even so, despite the existence of those directives, no guidance is given regarding how disclosures should be designed, implemented, or monitored (De Jans, Vanwesenbeeck, et al., 2018). Accordingly, disclosures are different across countries, media channels, and types of advertising (De Jans, Vanwesenbeeck, et al., 2018) and stakeholders seem to be confused (van Reijmersdal & Rozendaal, 2020). This results in this regulation being self-made by the producers of digital content and based on the mere hope that being transparent about advertising is a value commonly shared (European Commission, 2018; van Reijmersdal & Rozendaal, 2020).

Hence, an international, common, and systematized guide for advertising disclosures does not exist and is needed (De Jans et al., 2018b).

In the YouTube environment, the platform enables the option for content creators to check “includes paid promotion”, when uploading a video in the platform - as required by EU's revised AVMSD (Viola, 2018) - and automatically the platform generates a disclosure implemented on the video during its first 20 seconds (De Jans & Hudders, 2020). However, this requires that content creators know about this feature and have the will to use it, and has been found to be inefficient in promoting transparency of youtuber marketing (De Jans & Hudders, 2020). Another option for youtubers is to disclose the sponsorship themselves by, as an illustration, talking about it in the video or by writing it in the description box (De Jans & Hudders, 2020). When the disclosure is generated by the influencer,

sometimes is hidden (often appearing at the very bottom of the description box in the “show more” option and often being just “video sponsored by X” or “thank you brand X for the opportunity”), not making it unavoidable nor close with the advertisement as it is suggested by FTC (Wu, 2016). Furthermore, children provenly do not go check disclosures in the description boxes (De Jans & Hudders, 2020). Therefore, existing YouTube disclaimers are inconsistent and far from being “clear” and “conspicuous”, as suggested by FTC, and do not adequately convey the commercial nature (Wu, 2016).

2.4.2. Impact of Advertising Disclosure on Children's Advertising Literacy

As advertising disclosures are considered as a technique to promote transparency and make the commercial objective of advertisers known to consumers, they should be a cue to assist children with the activation of advertising literacy (John, 1999). But to be able to critically reflect on advertising, children must first recognize the advertising (Boush et al., 1994; Friestad & Wright, 1994).

Advertising literacy, meaning persuasion knowledge in the context of advertising, is one’s knowledge and skills related to advertising (Hudders et al., 2017). Based on insights from the Persuasion Knowledge Model of Friestad & Wright (1994), advertising literacy activation is expected to lead to a more cautious viewing of the advertising, working like a “filter” for the persuasion attempt (Hudders et al., 2017). Hence, advertising literacy is of paramount importance to process advertising and to critically cope with it (Hudders et al., 2017).

Advertising recognition, understanding of selling intent, and understanding of persuasive intent are some of the elements that constitute adverting literacy and the most examined ones (Boerman & van Reijmersdal, 2016, 2020). Children’s advertising literacy is, therefore, their ability to recognize advertising, understand its selling and persuasive intent and apply this comprehension to evaluate the products that are being advertised (De Jans et al., 2017). When such literacy is lacking, unconscious persuasion may occur (De Jans et al., 2017).

Children’s advertising literacy is very low and faces even more challenges in the context of embedded advertising formats where advertising aims to merge the commercial content to the media content and become quite indistinguishable (An et al., 2014; Hudders et al., 2016, 2017; Hudders & Cauberghe, 2018). The reason why it is low is that children’s advertising literacy grows and mature with age (Hudders et al., 2017; John, 1999). In particular, in traditional advertising formats, understanding of selling intent starts to be comprehended by

the age of 8, and understanding of persuasive intent can start to be grasped at the age of 10 (Rozendaal et al., 2011). However, in newer types of advertising formats, such age milestones in terms of advertising literacy are still unclear (Hudders & Cauberghe, 2018). Either way, due to children's limited literacy skills, until the age of 12 children are a vulnerable target group (Hudders et al., 2017; John, 1999). Given that influencer marketing on YouTube is one of the examples where it is harder for children and young teenagers to activate their advertising literacy (De Jans et al., 2018a), recognizing that a YouTube video is sponsored is the first step for the activation to occur. This calls for child protection measures and concerns for increasing their advertising literacy.

The field investigating the development of children's advertising literacy research is growing but is still very green (De Jans et al., 2019) and results are ambiguous (Rozendaal, Oprea, et al., 2016).

Empirical evidence among adults suggests that their advertising recognition and their understanding of the selling and persuasive intent can be increased with the presence of advertising disclosures in the context of embedded advertising, including influencer marketing (e.g. Boerman et al., 2014, 2017; Campbell & Evans, 2018; Evans et al., 2017; van Reijmersdal et al., 2016). But, until now, the empirical evidence regarding the effects of disclosures for influencer videos on children's activation of advertising literacy is scarce and with mixed results (Boerman & van Reijmersdal, 2020).

Some studies among children and young teens demonstrate that disclosures of influencer marketing can positively affect advertising recognition (e.g. Boerman & van Reijmersdal, 2020; De Jans, et al., 2018a; De Jans & Hudders, 2020). Regarding the understanding of selling and persuasive intent, some studies found no effects of disclosures (Panic et al., 2013) but the study of (Boerman & van Reijmersdal, 2020) suggests that disclosure increases all three levels of children's advertising literacy (as the authors put that advertising recognition alone is not enough to activate advertising literacy, understanding of selling intent and persuasive intent are also fundamental) (Boerman & van Reijmersdal, 2020). There is also research finding that disclosures do not increase children's advertising literacy activation (Hoek et al., 2020; Panic et al., 2013).

According to the results from previous studies, we expect that an advertising disclosure also activates advertising literacy in its three levels, hence the first hypothesis is:

H1: A sponsorship disclosure (vs. no disclosure) increases (a) the recognition of the YouTube video as advertising, (b) the understanding of the selling intent of the video, and (c) the understanding of the persuasive intent of the video.

2.4.3. Impact of Advertising Disclosures on Brand Responses/Effects

Advertising literacy activation is predicted to lead to a more cautious and screening viewing of the advertising (Friestad & Wright, 1994).

Existing research among children regarding the relationships between advertising literacy and brand effects is mixed and inconclusive. Previous studies with children have demonstrated that disclosures can, however, exert indirect negative impacts on brand effects. In the context of advergames, the presence of a disclosure diminished children's brand preference (An & Stern, 2011) and purchase request (Panic et al., 2013). In the context of disclosure for TV advertising, the presence of the disclosure diminished children's advertised product desire (Rozendaal, Buijs, et al., 2016). Regarding vlog advertising, the presence of the disclosure diminishes teens' purchase intention (De Jans et al., 2018a). Authors De Jans & Hudders (2020) put that a standard YouTube-generated disclosure reduces children's purchase request but a disclosure elaborated by the influencer may increase children's purchase request. The study from Boerman & van Reijmersdal (2020) argues that disclosures should help children recognize advertising in a video, understand its selling and persuasive intent, and that should make them feel like resisting the advertising attempt – in a process of psychological reactance (van Reijmersdal et al., 2017), which should lead to a negative effect on brand attitude and less will to obtain the advertised product. In their study, the authors found that disclosure for vlog advertising targeted at children had a negative impact in terms of product desire and brand attitude (only for children with a low to a moderate para-social relationship with the influencer; children with a strong para-social relationship with the influencer did not mind that the influencer's content had a selling intent) (Boerman & van Reijmersdal, 2020). De Jans & Hudders (2020) showed that a youtuber's disclosure increases children's brand attitude, hence brands profit from asking influencers to elaborate a disclosure. On the other hand, Hoek et al. (2020) have found no positive relationship between an increased children's advertising literacy and brand attitude, and van Reijmersdal et al. (2020) have found that children's understanding that a YouTube video is sponsored does not exert a direct effect in brand attitude.

Concerning disclosures' effects on brand recall, there is research that puts that a disclosure has positive effects on children's brand recall (e.g. Boerman & van Reijmersdal, 2020; De Jans & Hudders, 2020). This can be explained because an advertising disclosure attracts children's attention to the advertisement, causing them to notice the brand more. A disclosure increases visual attention to the video and as a consequence enhances the brand's memory, according to past research with adolescents (see van Reijmersdal et al., 2017) and adults (see Boerman et al., 2012, 2015).

All these shreds of evidence are inconclusive because they are scarce and may depend on factors like the type of disclosures, type of product/brand, and others. Hence, there is a need for research on the effects of disclosures on YouTube videos with children in terms of brand attitudes and purchase requests.

As such, despite unsettled results, in line with Boerman & van Reijmersdal (2020), we expect that the activation of these three levels of advertising literacy will negatively influence children's brand attitude, and in line with De Jans et al. (2018a) we expect that it will negatively influence children's purchase request, but in line with Boerman & van Reijmersdal (2020) and De Jans & Hudders (2020) we expect an increase in brand recall

***H2:** A sponsorship disclosure (vs no disclosure) increases (a) brand recall and decreases (b) brand attitudes and (c) brand purchase request, through the activation of the three components of advertising literacy.*

2.5. Sponsorship Transparency as a mitigator of the effects of Advertising Recognition

2.5.1. Advertising Disclosures' Design & Formulation

One of the most distinguishing features of digital native and embedded advertising is its lack of transparency about the content's persuasive intent (van Reijmersdal & Rozendaal, 2020). The need to increase sponsorship transparency to apply fairer marketing to children is undeniable. And it is critical for the future of digital content to ensure trust and transparency (van Reijmersdal & Rozendaal, 2020).

Research has mainly been conducted among adults and has demonstrated that some disclosures are more likely to be noticed and effective in increasing advertising recognition depending on the characteristics and design of the disclosure (Wojdyski & Evans, 2020). For instance, the effectiveness of disclosure on advertising recognition depends on where it is placed, when it appears, its duration, and the language used (Wojdyski & Evans, 2020).

Regarding the position, a disclosure placed in the center of the media format is preferred for children, as eye-tracking studies show that children focus their attention at the centre of the screen and not at the corners (see De Jans, Vanwesenbeeck, et al., 2018). Concerning when it appears, a study with early adolescents suggests that a disclosure exhibited before a sponsored video allows indirectly for a better understanding that the content is sponsored than a disclosure exhibited simultaneously with the video (van Reijmersdal et al., 2020). Boerman et al. (2014) in a study with adults and De Pauw et al. (2018) in a study with young children also prove that a disclosure shown before or simultaneously with the media containing brand placement is more effective in increasing advertising literacy than a cue shown concurrently or at the end. The duration has an impact on persuasion knowledge, as disclosures that last longer are more effective in their activation than disclosures shorter in time (Boerman et al., 2014; van Reijmersdal et al., 2017). Recent investigation has been using 10-seconds long disclosures, following social media advertising codes (see Boerman & van Reijmersdal, 2020; Hoek et al., 2020; van Reijmersdal et al., 2020). Also, a disclosure in a visual format is better than an audio warning at activating children's advertising literacy for brand placement (De Pauw et al., 2018).

Hardly any studies have been conducted among children regarding the visual look and wording of disclosures. However, it has been found that disclosures should stand out by using striking colors and distinctive and unconventional shapes, unlike existing advertising disclosures that traditionally are displayed in neutral colors such as black or white (De Jans, Vanwesenbeeck, et al., 2018; Tessitore & Geuens, 2013).

In a study regarding the effects of disclosure format on news articles, disclosures with high visual prominence, and with the presence of the sponsor's logo induced higher advertising recognition among adults (Amazeen & Wojdyski, 2020). The study of De Jans & Hudders (2020) with children and YouTube also suggests that including the brand logo in the disclosure can help children better remember the disclosure and, consequently, increase advertising recognition. In addition, disclosures with clear language that notices a financial transaction with the use of words such as "sponsored" and "advertising" also increase advertising recognition (Amazeen & Wojdyski, 2020; Wojdyski & Evans, 2016).

Accordingly, under the assumption that a sponsorship disclosure can help youngsters with advertising recognition, its effectiveness is dependent on its characteristics and contents (Wojdyski & Evans, 2016). Depending on its design, formulation, and text (therefore,

depending on the level of how it transparently conveys the commercial intent), a disclosure can result in more – or less – advertising recognition. A disclosure formulated with the features mentioned above that are best suited for children’s advertising recognition (i.e., a visual disclosure situated in the central part of the media format, shown before the media, that lasts for 10 seconds, that uses striking and contrasting colors and has the brand’s logo present and uses easier understood language), will consequently be more transparent than one that is lacking some features.

Therefore, since the existence of a disclosure and its prominence can affect the way children perceive the advertising that follows, we expect that:

H3: *Children’s (a) advertising recognition, (b) understanding of Selling Intent, and (c) understanding of persuasive intent will be greater for a disclosure with a high level of transparency than a disclosure with a low level of transparency.*

2.5.2. Sponsorship Transparency as a Mitigator of the Effects of Ad Recognition

Sponsorship transparency is when the persuasive and paid nature of an advertising message, as well as the identification of the sponsor, are clearly stated and are perceived by the consumer, after the initial step of recognizing the ad (Wojdyski et al., 2018).

Content producers and brands, still consider that using disclosures on native advertising formats brings more disadvantages than advantages (van Reijmersdal & Rozendaal, 2020). As advertisers believe that disclosures lead to negative advertising effects, they are not keen to implement them (Wu, 2016). Disclosing the commercial nature of a sponsored video may indeed slightly decrease the effectiveness of the advertising effort in the short run, however, there is research stating that proper and upfront disclosures will increase viewers confidence in youtubers and brands, ensuring that this type of marketing will continue to have room to exist (Wu, 2016).

Therefore, a sponsorship disclosure and following advertising recognition do not by definition negatively impact advertising effects (De Jans, Vanwesenbeck, et al., 2018). On the other hand, when such commercial intent is not disclosed and consumers find out, the tendency is for the youtuber credibility to become damaged and the brand to be stigmatized (Wu, 2016).

Thus, some literature suggests that the predicted negative effects of advertising recognition on consumers' attitudes and behavior may be attenuated by transparently explaining the advertising nature of the message (Wojdynski et al., 2018). The authors Wojdynski et al. (2018) developed a scale that has identified the four dimensions of sponsorship transparency: brand presence (the degree to which the brand is present), sponsor clarity (the clarity of an ad's sponsor), disclosure (how the communication is disclosed as an ad), and lack of deception (the level to which consumers feel as though the advertisers tried to deceive them about the fact that it is advertising) (Campbell & Evans, 2018). When these factors are considered together, they assist the customer generate an overall sense of how clearly a specific communication indicates that it is advertising (Evans et al., 2019). The degree of transparency may aid to mitigate the negative responses associated with feeling tricked for customers who recognize the advertising (Evans et al., 2019). The study of Evans et al. (2019) with adults precisely supports that, by suggesting that even though advertising recognition provokes negative effects on attitude towards the advertisement, attitude towards the brand, and purchase intent, if the advertisement is perceived as transparent, those negative effects are mitigated, which can improve those brand-related attitudes. The authors demonstrated that a less covert advertising style results in increased advertising recognition, which leads to unfavorable effects in terms of brand attitude and purchase intent. In its turn, advertising recognition improved consumers' views of sponsorship transparency, resulting in more positive attitudes toward the ad, brand attitudes, and purchase intent. As a result, the addition of sponsorship transparency as an additional mediator minimized the harmful impact of advertisement recognition (Evans et al., 2019).

Recent studies in various contexts of native advertising, including sponsored YouTube unboxing videos (see Evans et al., 2018) proves that, indeed, consumers attitudes, perceptions, or intentions towards the advertiser may affected less negatively if the consumers believe the sponsorship is transparent (Wojdynski & Evans, 2020).

Given the research on this matter, this study proposes that for children who recognize the advertising, the degree of transparency may mitigate negative effects on brand attitude and purchase requests associated with feeling misled. The degree of transparency, in this case, is the level of disclosures' sponsorship transparency. The body of empirical studies that suggest that the negative effects of advertising recognition can be mitigated by an increase in consumers' perceptions of sponsorship transparency is limited, and to our knowledge, no

study has yet been conducted with children on the impact of the level of disclosures' sponsorship transparency. As a result, the following hypothesis is formulated:

H4: *The negative effects of disclosure via advertising recognition on children's (a) brand attitude and (b) purchase request will be mitigated by increases in sponsorship transparency level.*

To sum up, the need to protect children from unfair advertising practices is real. Their advertising literacy is still undeveloped (Hudders et al., 2017) and several studies have demonstrated that children under 12 have difficulties in dealing with embedded advertising formats (e.g. De Pauw et al., 2018; Hudders et al., 2016). As a result, the age of 12 is still considered a relevant boundary in terms of regulation, as the few guidelines that exist regarding children's protection from advertising evoke restrictions for children aged 12 and less (De Jans, Vanwesenbeeck, et al., 2018). However, research on how new approaches to marketing like influencer marketing impact children below the age of 12 is still in short supply. Although limited, the existing research mainly focuses on the YouTube platform, as it is the most frequently utilized by kids (De Veirman et al., 2019). Consequently, the focus of the present study is on the YouTube platform, and on children aged 10 to 12 years old, as they are extremely vulnerable and exposed to advertising (De Veirman et al., 2019).

It may also be observed that most empirical body of research in advertising regulation for children is conducted in the United States (De Jans et al., 2019). In the last few years, a few studies have begun to be conducted in some European countries, but, to our knowledge, no study has been conducted in Portugal so far.

Lastly, apart from children and parents, this topic is also relevant for companies and marketing practitioners, as influencer marketing also has a lot of undiscovered territory for them (Childers et al., 2019). As seen, brands benefit from sponsorship transparency, not only under children's eyes but also their parents, who increase their attitudes toward the brand and attitude towards the sponsor if they believe the brands transparently disclose their partnerships (Evans et al., 2018)

3. Methodology

3.1 Choice of Methodology

As previously mentioned, research is lacking in the field of influencer marketing on YouTube for children, particularly regarding the impacts of the use of disclosures and sponsorship transparency. Nonetheless, some articles show some similarities with the objective of this study and will be taken into consideration to understand what methodologies have mostly been used.

Table 2: Methodologies of studies on disclosing native advertising to children

Author(s)	Year	Title	Methodology	Sample
Jans & Hudders	2020	<i>“Disclosure of Vlog Advertising Targeted to Children”</i>	Experimental study (2x3 between-subjects design); questionnaires	190 children (10-12 years old)
Jans, Vanwesenbeeck, Cauberghe, Hudders, Rozendaal & Reijmersdal	2018	<i>“The Development and Testing of a Child-inspired Advertising Disclosure to Alert Children to Digital and Embedded Advertising”</i>	Study 1: cocreation workshop; Study 2: eye-tracking study; Study 3: experimental study (2x2 between-subjects design);	157 children (10-11 years old)
Boerman & Reijmersdal	2020	<i>“Disclosing Influencer Marketing on YouTube to Children: The Moderating Role of Para-Social Relationship”</i>	Experimental study (1 factorial between-subjects design); questionnaires	112 children (8-12 years old)
Hoek, Rozendaal, van Schie, van Reijmersdal & Buijzen	2020	<i>“Testing the Effectiveness of a Disclosure in Activating Children’s Advertising Literacy in the Context of Embedded Advertising in Vlogs”</i>	Experimental study (1 factorial between-subjects design), questionnaires	289 children (7-16 years old)
Jans, Cauberghe & Hudders	2018	<i>“How an Advertising Disclosure Alerts Young Adolescents to Sponsored Vlogs: The Moderating Role of a Peer-Based Advertising Literacy Intervention through an Informational Vlog”</i>	Experimental study (2x2 between-subjects design); questionnaires	160 children (11-16 years old)

By observing previous studies summarized in Table 2, it is concluded that experimental research is a quantitative methodology frequently adopted in this type of investigation. Quantitative methodologies are methods where researchers choose what to study, specify the questions or hypotheses, measure variables, and use statistical analysis to interpret the

results, objectively (Creswell, 2014). In particular, experimental research consists of testing specific hypotheses derived from theory by designing situations and manipulating (independent) variables to assess how they affect others (dependent variables) (Choen et al., 2000). To perform experiments, the researcher investigates the treatment of an intervention into the study group and then measures the outcomes of the treatment (Williams, 2007).

Table 3: Methodologies of studies on disclosures’ characteristics and sponsorship transparency

Author(s)	Year	Title	Methodology	Sample
Wojdyski & Evans	2016	<i>“Going Native: Effects of Disclosure Position and Language on the Recognition and Evaluation of Online Native Advertising”</i>	Study 1: experimental study (3x4 mixed between-subjects factorial design; Study 2: eye-tracking experiment	242 adults
Amazeen & Wojdyski	2020	<i>“The effects of disclosure format on native advertising recognition and audience perceptions of legacy and online news publishers”</i>	Experimental study (2x2x2x3 between-subjects factorial design + 2 conditions); online survey	800 adults
Evans, Wojdyski & Hoy	2018	<i>“How sponsorship transparency mitigates negative effects of advertising recognition”</i>	Online experiment with 16 stimuli	179 adults
Evans, Hoy & Childers	2018	<i>“Parenting “YouTube Natives”: The Impact of Pre-Roll Advertising and Text Disclosures on Parental Responses to Sponsored Child Influencer Videos”</i>	Online experimental study (2x3 between-subjects factorial design)	418 adults

Table 3 gathers studies on the topics of sponsorship disclosures’ characteristics and transparency. Despite that this research was conducted with adults and no children yet, it also helps to understand that experimental research is the most frequently used methodology on this matter too.

Both tables also allow concluding that the data collected in the studies using experimental research was mainly obtained using a survey research method (comprised of questionnaires). This method is one of the ways to assemble data in the field of the social sciences and allows for sampling data from many respondents that intend to represent a population and generalize results (Williams, 2007). Answering questionnaires also requires few interactions with the researcher, so respondents tend to answer more questions and subject bias is also less likely to occur (McNeill & Chapman, 2005).

Accordingly, given that this dissertation main goal is to objectively understand how the presence of sponsorship disclosures have effects on children's activation of advertising literacy, responses to the brand, and the influence of sponsorship transparency, and given that the studies conducted so far were experimental, this dissertation will use a quantitative methodology by conducting an experimental study and applying questionnaires to a sample of children.

3.2 Ethical and legal considerations

Research developed with children must follow ethical guidelines to ensure the best interests of the youngsters and the protection of their rights, as stated by UNICEF (Graham et al., 2013). Accordingly, schools and parents/caregivers were informed about the experimental process and were granted confidentiality and anonymity, as well as the absence of any type of commercial relationship with any party that could be interpreted as a possible conflict of interests. Informed consent forms were delivered to and signed by caregivers of children (see *Appendix 1*). Moreover, children were informed about their freedom of choice not to participate in the study, to give up at any moment (none of them did), or to not answer any question. It was also explained to them that there were no right nor wrong answers and about data confidentiality and anonymity, to prevent an eventual social desirability bias (Grimm, 2010; Zerbe & Paulhus, 1987). As children should only be involved when it is not possible to obtain the information in another way (Graham et al., 2013), their sociodemographic issues, such as sex or age, and other issues related to media viewing habits, were sent in a small questionnaire to parents/caregivers (see *Appendix 2 - Parents' Questionnaire*). As a result, UNICEF's ethical standards and procedures have been met.

3.3 Participants

As previously mentioned, this research focuses on children aged 10 to 12 years. Therefore, children in the 5th and 6th years of schooling were integrated into this study. The study was carried out at a private school and a study centre, both located in the city of Braga, Portugal.

The final sample consisted of 134 children between 10 and 12 years old ($M_{age} = 10.97$; $SD = 0.725$). From 161 consent forms sent to children's caregivers, a total of 134 were signed and returned, meaning an 83% response rate. Moreover, the sample was composed of approximately the same number of children from each gender (47% of girls) and each school year (45.5% from the 5th grade). The 13 children from the study centre were randomly assigned to the control group or the experimental groups. The 121 children from the school

belonged to 3 classes from the 5th grade and 3 classes from the 6th grade, hence, each class from each school year was assigned to either the control group, the experimental group 1, or the experimental group 2 (see design and procedure).

Table 4: Sample characteristics

	Gender		Age			School Year	
	<i>Male</i>	<i>Female</i>	<i>10 years</i>	<i>11 years</i>	<i>12 years</i>	<i>5th grade</i>	<i>6th grade</i>
n	71	63	37	64	33	61	73
%	47.0%	53.0%	27.6%	47.8%	24.5%	45.5%	54.5%

3.4 Design and procedure

To answer the proposed hypotheses, an experiment was conducted with one factor (disclosure transparency level: low, high, no disclosure/control) between-subjects design with a sponsored video. This resulted in three conditions and children were randomly assigned to one. The children were exposed to the video without a disclosure (Control Group; $n = 45$), the same video with a disclosure with a low level of transparency (Experimental Group 1; $n = 43$), or with a disclosure with a high level of transparency (Experimental Group 2; $n = 46$).

The experiment at the study centre took place in a quiet room. The children were asked to come in pairs to the room, where the researcher had two laptops and two sets of headphones. After the experiment, the children were asked to leave the room, the laptops and headphones were disinfected, and the next pair of children would come. At the private school, the experiment took place in the computer classroom, with the entire class, one class at a time. The whole class watched the video at the same time, projected onto the classroom projector. In both places, as soon as they had finished watching the video, children were instructed to fill out the questionnaire on the laptop, on a google forms tab that was already open.

The questionnaire started with some control variables (prior exposure to the specific video, familiarity with the influencer, frequency of watching of videos from this influencer). It continued with questions about children's advertising recognition, brand recall, another control variable (brand familiarity), brand attitude, purchase request, understanding of selling intent, understanding of persuasive intent, followed by questions posed regarding perceptions of sponsorship transparency. It ended with a manipulation check. Children were

then thanked. The three versions of the questionnaire can be found in Appendix 4 and additional information is presented in the Measures section.

3.5 Stimuli

To select the stimulus material, brief interviews were conducted with 8 children (aged between 9 and 12 years old). It was asked to each child to list the youtubers they most frequently watched. Following, an analysis of the outlook of the Portuguese youtubers was carried out. The focus on Portuguese youtubers and not foreign youtubers is since children aged 10-12 years old are usually not fluent in English, hence they consume mostly Portuguese (Portugal) or Portuguese (Brazil) YouTube content. Based on the results of this exploratory test and in the analysis of the panorama of the Portuguese youtubers, three popular youtubers were selected in an initial stage:

Table 5: Demographics of the audience of youtubers. Data were taken from Ribeiro (2019)

Youtuber	Subscribers (total)	Portuguese subscribers (%)	Target audience	Audience Gender	
				Female (%)	Male (%)
SirKazzio	5.01M	61%	Pre-teens	39%	61%
D4rkFrame	4.96M	18%	Pre-teens	42%	58%
Wuant	3.69M	39%	Teens	34%	66%

Table 5 displays the demographics of the audience of those famous youtubers. SirKazzio is ranked at the first position, D4rkFrame at the second position, and Want at the fourth position at the rank of Top 100 YouTubers in Portugal by Social Blade (see *table 1*).

For this study, an existing video of the youtuber D4rkFrame was used. The choice of this youtuber is justified for several reasons. First, he is a male youtuber and male youtubers seem to be considered attractive for both boys and girls whilst female youtubers content is often considered more attractive for girls (Szostak, 2014). Even though his audience has a higher percentage of males, from Table 5 it is concluded that he is the one with the most balanced audience in terms of gender. Third, his content has an amusing nature and expressive and energetic language and gesticulation. His videos contain comedy, challenges, videogames, and vlogs about his daily life (Ribeiro, 2019). Additionally, unlike other youtubers, he is not and has never been involved in any controversy, does not speak about issues that are not suitable for the target age group, and does not use slang. António Luís (D4rkFrame) is a 27-year-old Portuguese youtuber whose channel currently has 4.96 million subscribers and a total of

more than 747 million views in all his videos (Bacelar, 2020). His monthly earnings from his YouTube activity can reach 35.5 thousand euros (Bacelar, 2020). D4rkFrame is also the author of the children's book "Crazy Experiences and Bizarre Facts", published in March 2018 by the publisher Manuscrito.

An extensive analysis of the 473 videos available to date in his channel was carried out. For the choice of the video, some criteria were defined: the video would have to have an attractive product/brand for both genders; would have to be both appropriate and engaging for children aged 10-12; the product would have to be easy to buy for all participants (that is, not being too expensive and being easy to find it for sale).

The chosen video has the title of "Essa caneta não é o que parece..." ("This pen is not what it seems..."). Its access link is available in *Appendix 3 - Link to the Video and Disclosures*. The video is 8 minutes and 17 seconds long and was edited to 3 minutes and 54 seconds. It currently has nearly 1.3 million views and 54 thousand likes. The youtuber starts the video by explaining that he was challenged by the brand to make a video showing the school supplies of the brand that he likes the most and that he believes his subscribers would like the most as well, and he proceeds to show products like backpacks, pens, notebooks, pencil cases, and other diverse accessories and miscellaneous. The brand is Note, one of the biggest school supplies brands in Portugal¹. Thus, this video was selected as the most appropriate, fulfilling the established criteria: the products mentioned are school supplies and the sponsor brand is Note, so they are suitable for children in the age group, are equally relevant for both genders, are not expensive and are easy to buy.

As the entire video revolves around Note's school supplies, the brand name is regularly mentioned. There are several times when the youtuber praises the brand and recalls that the material can be found in Note stores. A prominent brand placement occurs when the product or other identifying factor of the brand is presented visibly and it has a purposefully prominent place to attract the attention of the audience (De Jans & Hudders, 2020; Van Reijmersdal et al., 2012). Therefore, in this video, the Note brand was prominently placed.

Thus, considering that the youtuber gives his positive "opinion" about all the products that he chose - in this case, having a commercial partnership with the Note brand - this video

¹ Note is a registered brand and owner of more than 80 stores in Portugal that sells stationery, books, toys, and gifts. It is part of part of Sonae MC's portfolio, the largest food retailer in the country (Malhão, 2018).

falls into the category of reviews (of products) (De Veirman et al., 2019). It is important to mention that at no point in the video does the youtuber disclose (neither verbally nor visually, with no disclosure at the description box) that he was paid by Note to make this video, or that it contains paid advertising - eventually, it may just be noticeable that he simply did not pay for the material he chose.

In this study, the independent variable is the level of disclosure sponsorship transparency. Some factors such as the presence of the brand logo, the visual prominence of disclosure, and the clarity of the language used - particularly with the use of expressions that explain financial transactions such as “paid” and “advertising” - influence the level of transparency of disclosures (Amazeen & Wojdyski, 2020; Wojdyski & Evans, 2016).

In the condition of a low level of sponsorship transparency, the video was preceded by a disclosure with a low level of transparency. The disclosure was displayed in white letters on a black background for 10 seconds and it was read “D4rkFrame and Note created this video with a partnership”. The video started right away. In the condition of a high level of sponsorship transparency, the video was preceded by disclosure with a high level of transparency. The disclosure was displayed in large capitalized white letters and highlighted in red on a black background, with Note’s logo present below, for 10 seconds. The disclosure had written, “This video contains advertising paid by Note”. Both disclosures were based on social media advertising codes on the use of endorsements and testimonials in advertising (FTC 2013, Federal Trade Commission, 2017). The video started right away too. In the condition with no disclosures, no disclosure was displayed (the video started immediately). The exhibited video is the same in all three conditions.

Appendix 3 - Link to the Video and Disclosures contains, for consultation, images (screenshots) of the two disclosures to be shown, as well as the link to the original (and unedited) video.

Table 6: Overview of the Experimental Study

Group	Disclosure Transparency Level	Number of participants	Disclosures' duration	Total duration (disclosure + video)
Control Group	No disclosure	45 (33.6%)	--	3 min and 54 s
Experimental Group 1	Low	43 (32.1%)	10 s	4 min and 04 s
Experimental Group 2	High	46 (34.3%)	10 s	4 min and 04 s

3.6 Measures

The questions of the questionnaire were pretested with three children (aged 10, 11, and 12), to assess their comprehension and understanding of the vocabulary (Nelson, 2018). The scale anchors were visually represented by emoticon faces, which were employed as visual cues for the measurements (Tinson, 2009). The questionnaires used Google Forms as a platform and, as such, all questions with the mandatory answer also had the option “I do not want to answer”, so that children had always the freedom of choice not to answer a certain question.

The three levels of advertising literacy (Boerman & van Reijmersdal, 2020) were all measured applying 6-point Likert scales (1 = No, certainly not, 2 = No, I do not think so, 3 = Maybe not, 4 = Maybe yes, 5 = Yes, I think so, 6 = Yes, certainly) to this video and brand.

Advertising recognition: recognition of the sponsored video as being advertising was measured with an item: “Did you see advertising while watching this D4rk video?”, adapted from the study by De Jans & Hudders (2020). *Understanding of selling intent:* Children’s understanding of the selling intent of the video was assessed by asking them three questions, adapted from the work of Boerman & Reijmersdal (2020) to this video: “Was the video made so that children like you would ask parents/guardians to buy Note products?”, “Was the video made to make people buy Note products?” and “Was the video made to make you buy Note products with your own piggy bank money?”. *Understanding of persuasive intent:* To obtain perception regarding children's understanding of the video's persuasive intent, three questions, adapted from the work of Boerman & Reijmersdal (2020) to this video, was asked: “Was the video made to make people like Note products?”, “Was the video made to make people want to have Note products?” and “Was the video made to make people have a positive opinion about Note products?”.

Brand recall: Brand recall was measured with an item following De Jans & Hudders (2020). Children were asked to write the name of the brand they saw in the video if they had seen one. Children were also asked to leave a black space and go to the next question in case they did not remember seeing a brand. Answers were recoded as (0 = incorrect, 1 = correct) depending on whether they identified the brand Note (correct answer) or any other response.

Brand attitude: Brand attitude was gauged with three items following an adaptation from De Jans & Hudders (2020): the first question asked children to signal how much they like the Note brand, with response categories on a 5-point Likert-type scale (1 = I don’t like it at

all, 5 = It like it very much); the second question asked children “How cool do you think Note is?”, on a five-point Likert-type scale ranging from (1 = Not cool at all, 5 = Very cool); the third question asked “How many stars would you give to Note?” also on a five-point Likert-type scale ranging from (1 = 1 star, 5 = 5 stars). *Purchase request*: Children’s purchase request was measured with one item: “Will you ask your parents/guardian to buy you Note products?”, based on the work of De Jans & Hudders (2020). The answer options follow a 5-point Likert scale (1 = Definitely not, 5 = Definitely).

Sponsorship transparency: Sponsorship transparency was assessed via asking children to indicate their level of agreement with 12 statements on a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. Examples of items include: “There was a clear presence of a brand in the video”, “It was clear who sponsored this video”, “It was said in the video that it was an advertisement”, and “The brand tried to hide the fact that the video was an ad”. Those 12 items are intended to assess perceptions of brand presence, sponsor clarity, disclosure, and lack of deception, and were an adaptation from the work conducted by Wojdyski et al. (2018)’s sponsorship transparency scale to apply to this video and brand. Table 17 presents our adaption of the scale.

Manipulation check: As a manipulation check, the participants were asked “Did you see a white text on a black background at the beginning of the video? What was written on it?”. There were 4 answer options. One answer was coded as the 1= correct, depending on the experimental group in which the child was inserted, so for experimental group 1 was “Yes, I saw, it was written: “D4rkFrame and Note created this video in partnership.” and for experimental group 2 was “Yes, I saw, it was written: "This video contains advertising paid by: Note!". The remaining options for both experimental groups were either coded as 0= incorrect, them being: “Yes, I saw, it was written: “This is a YouTube video”; “Yes, I saw, it was written: “D4rkFrame expects you to like this video!”; “No, there was no text at the beginning of the video”, or 2= do not remember if they chose the option “Yes, I saw it, but I do not remember what was written”. In the control group questionnaire, this question is, of course, not present. This question is inspired by the work of Hoek et al. (2020).

Control variables: In addition to the questions posed to parents or guardians of the children regarding sex, age, and YouTube viewing habits, other control variables were also recorded. The prior exposure to the specific video was assessed with the question “Have you ever seen this video?”; familiarity with the youtuber was assessed with the question “Did you

know this youtuber before?"; familiarity with the brand was assessed with the question "Did you know Note (brand) before?" - all with "Yes" or "No" answer options. It was also measured how frequently children watch videos from this youtuber, on a scale ranging from 1 (never) to 6 (every day). These questions were inspired by the ones present in van Reijmersdal et al. (2020).

3.7 Data Analysis

Once all primary data were obtained from the questionnaires, the analysis of the data was carried out using IBM SPSS Statistics 26, a statistical program widely used. For all analyses, a 95% confidence interval was considered. Moreover, numerical data are presented with median and interquartile range: median (lower range value – upper range value).

All hypotheses were tested using Mann-Whitney. For H1 and H2, the tests were conducted with the dependent variable being either *Advertising Recognition* (H1a), *Understanding of Selling Intent* (H1b), *Understanding of Persuasive Intent* (H1c), *Brand Attitude* (H2b) or *Purchase Request* (H2c), and *Groups* as the independent variable (Control vs. Experimental 1 and Experimental 2). For H3 and H4, the dependent variable was either *Advertising Recognition* (H3), *Brand Attitude* (H4a), or *Purchase Request* (H4b), and *Groups* was used as the independent variable (Experimental 1 and Experimental 2). For H2, Chi-Square tests were also performed to compare the proportion of *Brand Recall* between *Groups* (Control, Experimental 1, and Experimental 2).

H2 and H4 required a mediation analysis that was made using Model 4 and 5,000 bootstrap samples in PROCESS version 3.5.3 (by Andrew F. Hayes). A mediation model assesses whether the effect of one variable in a second one is fully/partially dependent on a third variable, named the mediator variable. In H2, the mediation models evaluate the direct relationship between the independent variable (*Groups*) and the dependent variable (*Brand Recall/Purchase Request*), and then the indirect relationship between *Groups* and *Brand Recall/Purchase Request* through the mediators (*Advertising Recognition*, *Understanding of Selling Intent* and *Understanding of Persuasive Intent*). H4 had to correlate *Groups*, *Advertising Recognition/Understanding of Selling Intent/Understanding of Persuasive Intent* and *Purchase Request* and the mediator was *Sponsorship Transparency* in the step "Advertising Recognition → Purchase Request". An indirect effect is verified whenever the bootstrapped confidence interval (with 95% confidence) does not include zero in its interval. The mediation model for H2 is represented in Figures 1 and 2 in the results section.

4. Results

4.1. Evaluation of the Randomization Procedure

The experimental and control groups did not differ with respect to age ($F(2, 131) = 0.222$, $p = 0.801$), gender ($\chi^2(2) = 0.530$, $p = 0.767$), school year ($F(2, 131) = 0.662$, $p = 0.517$), familiarity with the brand ($\chi^2(2) = 0.972$, $p = 0.615$), familiarity with the youtuber ($\chi^2(2) = 0.196$, $p = 0.907$), frequency of watching the youtuber's videos ($H = 0.065$, $p = 0.968$), and prior exposure to the video ($\chi^2(2) = 3.560$, $p = 0.169$). Randomization was thus successful (see test results on *Appendix 8 - Homogeneity Tests*).

4.2. Validation of the Manipulation Checks

In the condition with a disclosure with a lower level of transparency (Experimental Group 1), 79% of children noticed and correctly remembered the disclosure, 16% noticed the disclosure but did not remember what was written on it and 5% did not remember to see a disclosure at the beginning of the video. In the condition with a higher level of transparency (Experimental Group 2), 82% of children noticed and correctly remembered the disclosure, 2% of children chose an incorrect disclosure, 7% noticed the disclosure but did not remember what was written on it and 9% did not remember to see a disclosure at the beginning of the video. Thus, there are no differences in the proportion of each type of answer between experimental groups ($\chi^2(3) = 3.350$, $p = 0.341$) (see results on *Appendix 9 - Manipulation Check*).

4.3. Analysis of the Reliability of the Used Scales

Table 7: Assessment of Reliability of the used scales (Alpha Model Reliability Analysis)

Questions	Cronbach's α
<i>Brand Attitude</i>	0.884
<i>Understanding of Selling Intent</i>	0.675
<i>Understanding of Persuasive Intent</i>	0.791
<i>ST Brand Presence Subscale</i>	0.598
<i>ST Sponsor Clarity Subscale</i>	0.533
<i>ST Disclosure Subscale</i>	0.653
<i>ST Lack of Deception Subscale</i>	0.753
<i>Sponsorship Transparency Scale</i>	0.699

For the reliability analysis, Cronbach α coefficients were observed. Table 7 shows that the questions underlying the “Brand Attitude”, the “Understanding of Selling Intent” and the “Understanding of Persuasive Intent” categories all had appropriate reliability, as all were approximately 0.7 or higher. Regarding the “Sponsorship Transparency”, while the full Sponsorship Transparency scale seems to be reliable, two out of four subscales, the “Brand Presence” and “Sponsor Clarity”, did not reach sufficient reliability for the questionnaire to be considered fully valid.

4.4. Hypothesis Testing

The **first hypothesis (H1)** intends to verify if the presence of a sponsorship disclosure (vs. its absence) increases *a) advertising recognition*, *b) understanding of selling intent* and *c) understanding of persuasive intent*. Table 8 presents an overview of the median scores of the dependent variables in the three disclosure conditions (no disclosure = Control Group; low transparency level = Experimental Group 1; high transparency level = Experimental Group 2). Table 9 shows test results for H1a, H1b, and H1c.

Concerning ***Advertising Recognition***, results show that there are differences between the control group and both experimental groups ($U = 1355.0, p = 0.002$) (see Table 9). In a more detailed comparison between groups, results reveal that median scores for Advertising Recognition are lower in the Control Group (5 (1-6)) when compared with both Experimental Group 1 (6 (4-6)) ($U = 684.5, p = 0.019$), and Experimental Group 2 (6 (4-6)) ($U = 650.0, p = 0.003$) (see Table 8 and Table 9). Thus, a disclosure – in this case, both disclosures –, increase the ability to recognize the advertising when compared with no disclosure, hence, **H1a is not rejected**.

Regarding the ***Understanding of Selling Intent***, test results show there are differences between the control group and both experimental groups ($U = 1470, p = 0.024$) (see Table 9). However, a closer look at the disclosures individually allows understanding that significant differences are only found in the condition with a disclosure with a high level of transparency ($U = 709.5, p = 0.021$), but not in the condition with a disclosure with a low level of transparency ($U = 760.5, p = 0.113$). In fact, median scores for the Understanding of Selling Intent are inferior in the Control Group (12 (10-15)) when compared to the Experimental Group 2 (14 (12-16)) (see Table 8). Overall, **H1b is not rejected** since results **partially support H1b**, but only for the condition with a disclosure with a high level of transparency,

in which the presence of a sponsorship disclosure (vs its absence) increase Understanding of Selling Intent

In what concerns the *Understanding of Persuasive Intent*, there is not a significant difference between the control group and the experimental groups ($U = 1771.5, p = 0.314$), nor individually for each of the experimental groups when compared to the control group (see Table 9). In fact, median scores for Understanding of Persuasive Intent are similar in the Control Group (16 (12-18)), in the Experimental Group 1 (16 (14-18)) and the Experimental Group 2 (16 (14-18)). Results indicate that a disclosure did not affect the Understanding of the Persuasive Intent of an advertisement. Hence, **H1c is rejected**.

Table 8: Medians for Advertising Recognition, Understanding of Selling Intent & Understanding of Persuasive Intent

Group	Median (interquartile range)					
	<i>Advertising Recognition</i>		<i>Understanding of Selling Intent</i>		<i>Understanding of Persuasive Intent</i>	
Control	N=44	5 (1-6)*	N=44	12 (10-15)*	N=45	16 (12-18)*
Experimental 1	N=43	6 (4-6)*	N=43	13 (12-15)	N=43	16 (14-18)*
Experimental 2	N=45	6 (4-6)*	N=45	14 (12-16)*	N=45	16 (14-18)*
Experimental 1 and 2	N=88	6 (4-6)	N=88	13.5 (12.0-15.0)	N=88	16 (14-18)

Note: results are presented in the format medians (percentile 25-percentile75); i.e., Mdn (P25-P75).

Table 9: Tests on differences between groups for H1a, H1b, H1c

Comparisons	<i>Advertising Recognition</i>		<i>Understanding of Selling Intent</i>		<i>Understanding of Persuasive Intent</i>	
Control vs. Experimental 1 and 2	U=1355.0	$p=0.002^*$	U=1470.0	$p=0.024^*$	U=1771.5	$p=0.314$
Control vs. Experimental 1	U=684.5	$p=0.019^*$	U=760.5	$p=0.113$	U=848.5	$p=0.313$
Control vs. Experimental 2	U=650.0	$p=0.003^*$	U=709.5	$p=0.021^*$	U=923.0	$p=0.463$

The **second hypothesis (H2)** relates to the effects of the disclosure (vs. its absence) on the *a) brand recall* (increase), *b) brand attitude* (decrease), and *c) purchase request* (decrease) mediated by *advertising recognition*, *understanding of selling intent*, and *understanding of persuasive intent*. Table 11

provides an overview of the dependent variables' median scores under the three disclosure conditions. Table 12 combines test results for H2a, H2b, and H2c.

Relating with **Brand Recall**, there is a significant difference between the control group and the experimental groups ($\chi^2(1) = 13.882, p < 0.001$) (see Table 12). Table 10 demonstrates the proportion of subjects that recalled the product's brand in the control group was 58%, while on the experimental groups this proportion was 86%. Individually, it was of 84% in Experimental Group 1 and 89% in Experimental Group 2, with a no significant difference between them ($\chi^2(1) = 0.558, p = 0.455$) (see Table 12). Those results suggest that the presence of a disclosure increases Brand Recall.

For **Brand Attitude**, comparisons between the control group and experimental groups show there is no significant difference between the control group and the experimental groups together ($U = 1757, p = 0.328$), nor individually between each experimental group and the control group (see Table 12). This suggests that the presence of a disclosure does not change Brand Attitude.

Lastly, there is no significant difference for Purchase Request between the control group and both experimental groups ($U = 1758.5, p = 0.227$) (see Table 12). However, when individually comparing each experimental group with the control group, a significant difference is found between experimental group 1 and the control group ($U = 737.5, p = 0.043$). But median scores for Purchase Request were superior in the condition with a disclosure with a low level of transparency (3 (3-4)) when comparing to the condition without a disclosure (3 (2-4)), which was contrary to what was expected. The Purchase Request seems to increase in the presence of a disclosure with a low level of transparency when compared with the absence of a disclosure. Therefore, results suggest that a disclosure with a low level of transparency affects the Purchase Request, while a disclosure with a high level of transparency doesn't, and also that the effect is to increasing it instead of decreasing it.

Table 10: Comparison of proportions of Brand Recall between different Groups

	Control	Experimental 1	Experimental 2	Experimental 1 and 2
Did not recall	19 (42%)	7 (16%)	5 (11%)	12 (14%)
Recalled	26 (58%)*	36 (84%)*	41 (89%)*	77 (86%)*

Table 11: Medians for Brand Attitude and Purchase Request

Group	Median (interquartile range)			
	<i>Brand Attitude</i>		<i>Purchase Request</i>	
Control	N=45	13 (11-14)	N=45	3 (2-4)
Experimental 1	N=43	13 (12-15)	N=43	3 (3-4)*
Experimental 2	N=44	12.5 (12.0-14.0)	N=46	3 (2-4)
Experimental 1+2	N=87	13 (12-14)	N=89	3 (3-4)

Note: results are presented in the format medians (percentile 25-percentile75); i.e., Mdn (P25-P75).

Table 12: Tests on differences between groups for H2a, H2b and H2c

Comparisons	<i>Brand Recall</i>		<i>Brand Attitude</i>		<i>Purchase Request</i>	
Control vs. Experimental 1+2	$\chi^2(1)=13.882$	$p<0.001*$	U=1757.0	$p=0.328$	U=1758.5	$p=0.227$
Control vs. Experimental 1	$\chi^2(1)=7.110$	$p=0.008$	U=799.0	$p=0.153$	U=737.5	$p=0.043*$
Control vs. Experimental 2	$\chi^2(1)=11.515$	$p=0.001$	U=958.0	$p=0.790$	U=1021.0	$p=0.907$
Experimental 1 vs. 2	$\chi^2(1)=0.558$	$p=0.455$				

The second part of our hypothesis suggests that effects on brand responses would be due to the activation of the three components of advertising literacy. Thus, a mediation analysis was run (see *Figures 1* and *2*).

Since correlations are calculated using the same model as a median comparison, we can infer from the first part of **H2** which of the outcomes are correlated with the groups. It is concluded that **Brand Recall** correlates with Groups (as it is significantly different between Control vs. Experimental Groups 1 and 2), therefore, it can be assessed in mediation analysis. **Brand Attitude** does not correlate with Groups (as no significant differences were found between Control vs. Experimental Group 1 and 2), hence, **H2b is immediately rejected**. **Purchase Request**, on the other hand, even though when comparing Control vs Experimental Group 1 and 2 no significant differences are found, a separate analysis

demonstrates that, in fact, there are significant differences when comparing the Control Group with the Experimental Group 1 alone, and this result is worthy of mediation analysis.

Figure 1 shows the mediation analysis made with Groups (Control vs Experimental Groups 1 and 2) as the independent variable, Brand Recall as the dependent variable, and Advertising Recognition, Understanding of Selling Intent and Understanding of Persuasion Intent as mediator variables. The results reveal that the impact of a disclosure in Brand Recall is partially dependent on Advertising Literacy (see Figure 1a): direct effect: $b = 1.405, p = 0.016$; and Figure 1b) indirect effect: $b = 0.951, \text{BCa } 95\% \text{ CI } [0.317, 2.235]$, more specifically in the Advertising Recognition compound (see Figure 1c): $b = 0.781, \text{BCa } 95\% \text{ CI } [0.222, 1.811]^*$.

Figure 2 shows the mediation analysis made with Groups (Control vs Experimental Group 1) as the independent variable, Purchase Request as the dependent variable, and Advertising Recognition, Understanding of Selling Intent, and Understanding of Persuasion Intent as mediator variables. Results suggest that the effect of disclosure in the purchase request is totally direct (see Figure 2a): $b = 0.536, p = 0.023$ and independent from Advertising Literacy (see Figure 2b): $b = -0.024, \text{BCa } 95\% \text{ CI } [-0.222, 0.202]$.

Altogether, our results **do not reject** and **partially support H2a**: the disclosure had a positive effect on brand recall via one of the advertising components (i.e., advertising recognition). **H2c is rejected** as well.

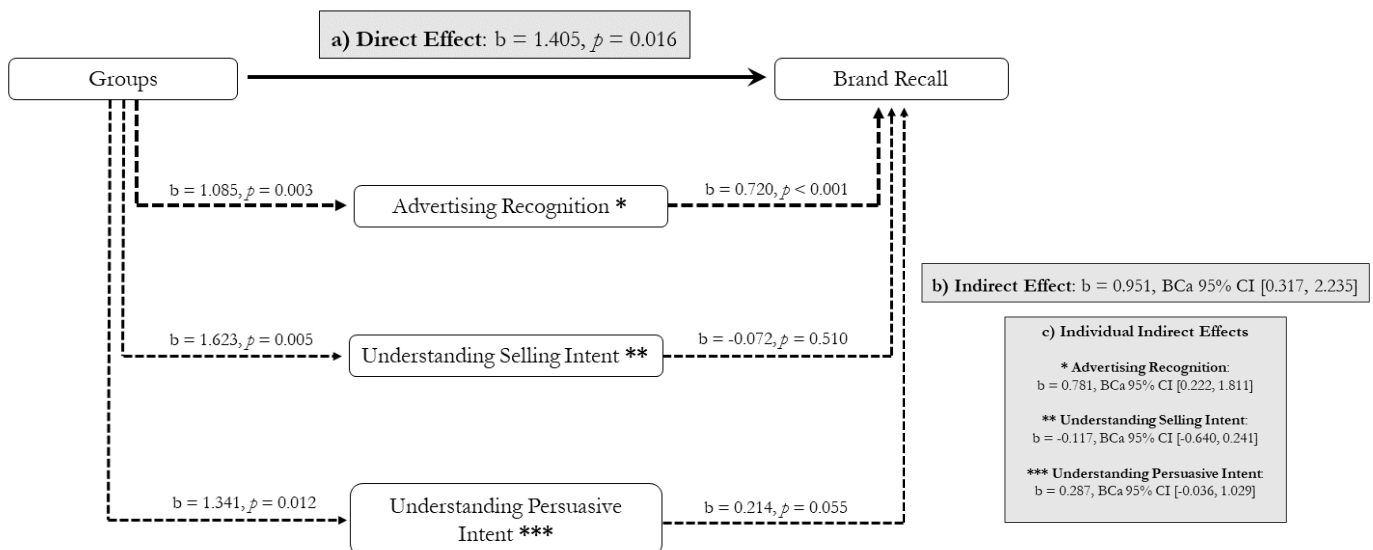


Figure 1: Mediation of the three components of Advertising Literacy in the Effect of Groups (Control vs. Exp 1 and Exp 2) in Brand Recall. Dashed lines represent the indirect effect of Groups through Advertising Recognition*, Understanding of Selling Intent**, and Understanding of Persuasive Intent***. The sum of each c) Individual Indirect effects results in the (total) b) Indirect Effect. The solid line represents the a) direct effect of Groups on Brand Recall.

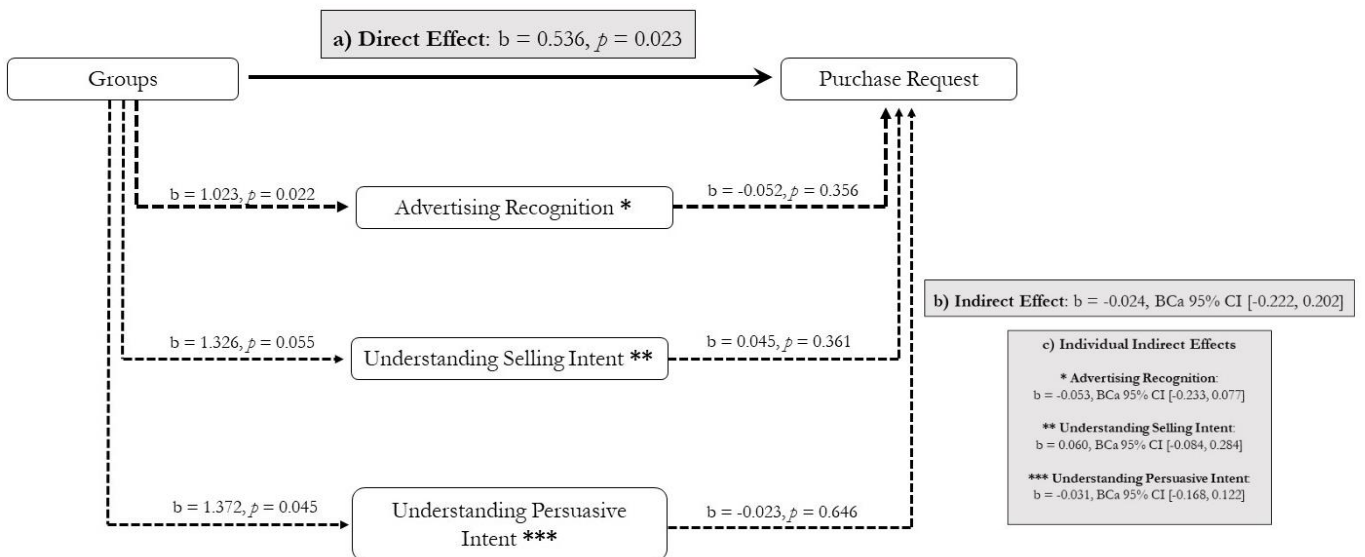


Figure 2: Mediation of the three components of Advertising Literacy in the Effect of Groups (Control vs. Exp 1) in Purchase Request. Dashed lines represent the indirect effect of Groups through Advertising Recognition*, Understanding of Selling Intent**, and Understanding of Persuasive Intent***. The sum of each c) Individual Indirect effects results in the (total) b) Indirect Effect. The solid line represents the a) direct effect of Groups in Purchase Request.

The **third hypothesis (H3)** aims to check if children’s *Advertising Recognition*, *Understanding of selling Intent*, and *Understanding of Persuasive Intent* are significantly different in the condition with a disclosure with a high level of transparency when compared with a disclosure with a low level of transparency. Results reveal that disclosures’ transparency level did not change any of the abilities to recognize advertising, understand the selling intent nor the persuasive intent, as no significant differences were found between Experimental Groups (see *Table 13a*). Accordingly, **H3 is rejected**.

Table 13a: Tests on differences between Experimental Groups

Variables	Experimental 1 vs. Experimental 2	
<i>Advertising Recognition</i>	U=907.0	$p=0.570$
<i>Understanding of Selling Intent</i>	U=847.0	$p=0.310$
<i>Understanding of Persuasive Intent</i>	U=919.5	$p=0.684$

The **fourth (H4) and last hypothesis** aimed at assessing whether the negative effects of disclosure via *advertising recognition*, *understanding of selling intent*, and *understanding of persuasive intent* on children’s (a) *brand attitude* and (b) *purchase request* would be mitigated by increases in sponsorship transparency level.

There is no significant difference in **Brand Attitude** between a disclosure with a low level of transparency and a disclosure with a high level of transparency ($U = 793.0, p = 0.186$) (Table 13b). Therefore, there is no effect of disclosure in Brand Attitude, so no effect can be mitigated by Sponsorship Transparency. Hence, immediately, **H4a is rejected.**

Regarding **Purchase Request**, again there is no statistical difference between both experimental groups ($U = 788.5, p = 0.084$) (see Table 13b) and therefore **H4b is rejected.** However, taking into account the *p-value* relatively close to 0.05, it could be argued that there is a trend for increased requests to purchase the products in the low transparency disclosure group (3 (3-4)), when comparing to the group with high transparency disclosure (3 (2-4)) (see Table 11). This trend shows an opposite effect to what was predicted – nevertheless, since the difference is not significant it does not change the conclusion of rejection of H4b.

Table 13b: Tests on differences between Experimental Groups

Variables	Experimental 1 vs. Experimental 2	
<i>Brand Attitude</i>	U=793.0	<i>p</i> =0.186
<i>Purchase Request</i>	U=788.5	<i>p</i> =0.084

Notwithstanding, even though the effect has a positive trend instead of negative, it was still interesting to try to assess if an indirect effect of the disclosure on purchase request existed and if it was mediated by sponsorship transparency. Table 19 on Appendix 6 shows the pathway of the mediation analysis and the specific relevant effect (indirect effect (mediated by Sponsorship Transparency)). Results suggest that Sponsorship Transparency does not mediate the effect of the Group in Purchase Request through Advertising Recognition ($b = 0.022, \text{BCa } 95\% \text{ CI: } [-0.157, 0.169]$), nor through Understanding of Selling Intent ($b = -0.035, \text{BCa } 95\% \text{ CI: } [-0.224, 0.079]$) or Understanding of Persuasive Intent ($b = -0.011, \text{BCa } 95\% \text{ CI: } [-0.173, 0.121]$).

Therefore, the effect of disclosure on Purchase Request, via the three components of Advertising Literacy, is independent of the level of Sponsorship Transparency, it will not be mitigated by its increase.

It should be noted that two subscales of the Sponsorship Transparency Scale demonstrated undesirable levels of internal consistency (reliability) in the current study and this reduced reliability should be taken into account for interpretation of results.

To sum up we present Table 14 with all the findings for the four hypotheses:

Table 14: Summary of Hypotheses testing

Hypothesis	<i>Not rejected</i>	<i>Rejected</i>
H1a: A sponsorship disclosure (vs. no disclosure) increases the recognition of the YouTube video as advertising.	X	
H1b: A sponsorship disclosure (vs. no disclosure) increases the understanding of the selling intent of the video.	X*	
H1c: A sponsorship disclosure (vs. no disclosure) increases the understanding of the persuasive intent of the video.		X
H2a: A sponsorship disclosure (vs no disclosure) increases brand recall, through the activation of the three components of advertising literacy.	X*	
H2b: A sponsorship disclosure (vs no disclosure) decreases brand attitudes, through the activation of the three components of advertising literacy.		X
H2c: A sponsorship disclosure (vs no disclosure) decreases brand purchase request, through the activation of the three components of advertising literacy.		X
H3: Children’s advertising recognition will be greater for disclosure with a high level of transparency than a disclosure with a low level of transparency.		X
H4a: The negative effects of disclosure via advertising recognition on children’s brand attitude will be mitigated by increases in sponsorship transparency level.		X
H4b: The negative effects of disclosure via advertising recognition on children’s purchase request will be mitigated by increases in sponsorship transparency level.		X

Note: * only partial support was found.

4.5. Other Results

Results regarding children’s YouTube viewing habits show that Gaming Videos is the category watched by the largest number of children, followed by Music or Dance Videos and Daily Vlogs (see Table 15). Moreover, on average, children in the study spend around 1 hour on YouTube per school Day (0.990 ± 0.715) and 2 hours on YouTube per day off (2.020 ± 0.804) (Table 104 on Appendix 14 – YouTube Time). No significant differences were found among ages (Table 25). Those two results come from answers given by children’s parents/caregivers on the small questionnaire send to them.

Table 15: Different Contents Watched by Children on YouTube.

Content	No. of children	Percentage (%)
<i>Music or Dance Videos</i>	65	49%
<i>Makeup and Fashion Videos</i>	23	17%
<i>Gaming videos</i>	79	59%
<i>Review Videos</i>	23	17%
<i>Unboxing Videos</i>	34	25%
<i>Daily Vlogs</i>	47	35%
<i>Other</i>	29	22%
<i>Total</i>	134	100%

Concerning children's responses, only 18% of children in the sample have never seen the video used as stimuli before. Out of the 134 kids, 71% already knew the youtuber (D4rkFrame) and 96% of children already knew the brand (Note). When asked to state how frequently children watched videos from this youtuber, on a scale ranging from 1 (never) to 5 (every day), 91% of children chose level 3 or below (results on *Appendix 7 - Descriptive Statistics*).

5. Discussion and Implications

This research intended to analyze whether the presence (vs absence) of a sponsorship disclosure on a YouTube video has effects on the activation of advertising literacy and indirect effects on brand and product responses. Additionally, it also aimed to assess if a disclosure presented more transparently, when compared with disclosure with a lower level of transparency, induced more advertising literacy and if the predicted negative effects of such on brand and product responses could be mitigated by increases in sponsorship transparency level.

Interesting conclusions can be taken from this study. First, with the first part of our research, we show that the presence of a disclosure at the beginning of the youtuber video triggers children's ability to recognize the advertising embedded during the video. In fact, both disclosures (the one with a higher level of transparency and the one high a lower level of transparency) increased advertising recognition when compared with the absence of a disclosure. Thus, it seems that a presence of (any) disclosure is enough to increase advertising recognition. These findings are consistent with prior research that has shown the impact of disclosures in improving children's advertisement recognition (Boerman & van Reijmersdal, 2020; De Jans, et al., 2018a; De Jans & Hudders, 2020).

We also show that the presence (vs. absence) of a disclosure has the ability to increase children's understanding of the selling intent of the video. A thorough analysis of each disclosure compared individually with the condition with no disclosure showed that the differences were only found in the presence of a highly transparent disclosure and not in the presence of a disclosure with a lower level of transparency. This means that the presence of a disclosure is effective and should be encouraged since it helps children understanding the selling intent of the video. Therefore, it seems that to increase children's understanding of selling intent, a brand or youtuber that intends to present a disclosure, should consider elaborating one more similar with our high transparency disclosure. The enhanced understanding of selling intent in the presence of a disclosure at the beginning of a sponsored video goes in line with Boerman & van Reijmersdal (2020) (even though in their study the authors tested only one disclosure (vs. no disclosure) and similar in language to our disclosure with a higher level of transparency).

Surprisingly, disclosures did not increase understanding of persuasive intent. Results are unambiguous: the presence of a disclosure has no impact on this component of advertising

literacy. This finding goes in line with Panic et al. (2013) that found no effect of disclosures in children's understanding of persuasive (and selling) intent, but contrary to conclusions of Boerman & van Reijmersdal (2020) who also found effects of disclosures in increasing the understanding of persuasive intent of the young. One possible explanation could be that the persuasive intent of the video was already quite evident as the brand was prominently placed throughout the video and the youtuber mentioned many times how much he was liking brand products, so disclosures could be unnecessary to help children understand that the youtuber was trying to convince them to like the brand and products as well. However, the most likely possible justification is that, in traditional advertising formats, children's ability to understand the selling intent of the advertising emerges around 8 years old, whilst the ability to understand the persuasive intent only emerges around 10 years (Rozendaal et al., 2011) (and there is still no information regarding newer advertising formats). It is feasible that in newer advertising formats such as influencer marketing on YouTube those abilities start even later, particularly the understanding of persuasive intent that requires children to, more than understand a physical activity of someone selling something to other people, understand that someone is trying to change their mental state (Rozendaal et al., 2011).

Thus, we show that the presence of a disclosure is an effective means to increase children's advertising literacy, in particular, to inform them about the advertising presence in a sponsored YouTube video and that the video may have been made to sell them products. But we also believe that children should be more educated and informed about contemporary marketing advertising tactics, to increase the advertising literacy component related with the understanding that a video may be trying to change their thinking.

This study's second conclusion is that brand and product responses can also be affected in the presence of disclosures. First, the presence of a disclosure leads to children recalling the brand a lot more than when no disclosure is present: in the condition without a disclosure, little more than half of children recalled the brand, whilst in the conditions with the disclosures most children did. Brand recall among both disclosures was very similar, so it seems that the mere presence of (any) disclosure is enough to trigger brand recall.

Moreover, we intended to see if such effect influenced the activation of advertising literacy, and our mediation analysis showed a significant direct effect of the disclosure on brand recall and an indirect effect mediated by one component of advertising literacy (advertising recognition). We found no indirect effects on brand recall via the understanding of selling

intent nor understanding of persuasive intent. This means that the presence of a disclosure increased brand recall *per se*, but the presence of a disclosure also increased advertising recognition, which consequently increased brand recall. An increase in children's brand recall in the presence of a disclosure is in line with previous studies (Boerman & van Reijmersdal, 2020; De Jans & Hudders, 2020). In particular, the authors Boerman & van Reijmersdal (2020) have found the indirect effect via the exact same component of advertising literacy. Overall, recognizing the advertising may stimulate a cognitive process in which children's attention to the stimuli material is heightened, resulting in increased memory.

The presence of a disclosure, however, has no effects on the attitudes toward the brand (and it undoubtedly did not reduce it, as was expected). These findings go in line with previous studies that found no impact of disclosures on brand attitude (Boerman & van Reijmersdal, 2020; Hoek et al., 2020). This shows that a disclosure informing children about the commercial nature of a video does not make children alter their evaluation or perceptions about the brand.

Results allowed for a very interesting finding regarding purchase request. When comparing the presence of a disclosure with the condition without a disclosure, a direct effect is suggested, but only if the disclosure has a lower level of sponsorship transparency. Such effect is contrary to the expected, as we have found that a disclosure (slightly transparent) increases children's purchase request and was expected that the presence of a disclosure decreased purchase request. Furthermore, this effect is totally independent of advertising literacy, as neither advertising recognition, understanding of selling intent nor understanding of persuasive intent impacted the effectiveness of the disclosure on purchase request. Our finding is contrary to previous studies that have found that a presence of a disclosure diminishes children's will to request/obtain the advertised product (Boerman & van Reijmersdal, 2020; De Jans et al., 2018a; Panic et al., 2013; Rozendaal, Oprea, et al., 2016), and in line with the work of De Jans & Hudders (2020) that have found that a disclosure (elaborated by the influencer, similar to the ones used in our study) may increase children's purchase request.

During the implementation phase of the present experimental study, we have spoken with several children (participants) and indeed noticed that all children who knew the YouTuber (D4rkFrame), did like him very much. The majority of the 134 children (71%) already knew the youtuber previously. Many kids shared with the researcher to think highly of D4rkFrame

and trust him and his recommendations. So, the increase in the request to purchase a product that we found in the presence of a disclosure may be justified by the fact that children trust D4rk's recommendations, and even if his video explains (through the disclosure) that he was paid to do so they believe he would never do it if he did not genuinely like the brand too, so still want to get the products advertised by him. People and, in particular, children, may think that even though the influencer received money for the endorsement of the brand, he/she would never endorse it if he/she did not truly like it, in a process that is known as correspondence bias (De Veirman et al., 2019).

As we saw in the literature review, Boerman & van Reijmersdal (2020), studied the parasocial relationship (PSR) as a moderator of the effect of disclosures via advertising literacy components on brand responses. The authors have found that children with low levels of PSR with the youtuber showed more negative brand attitudes, unlike children with high PSR with the youtuber that, even though realizing that the youtuber was trying to sell products, showed no negative brand attitude. However, the authors found no moderating effect of PSR on children's desire for the advertised product. Therefore, one possible explanation may be that the majority of the children could have a high PSR with this youtuber and that affected the purchase requests, by increasing them.

The second part of our research wanted to study if in the presence of a disclosure, the way the disclosure is presented and designed is relevant for the impact in advertising literacy and brand responses and if such impact is mediated by the sponsorship transparency. When comparing the two disclosures with different levels of transparency, no differences were found in any of the three components of advertising literacy, which means that a higher level of disclosure transparency is irrelevant when compared with a lower level of disclosure transparency, as it produces the same results in terms of advertising recognition, understanding of selling intent and understanding of persuasive intent. This finding is contrary with the one in the study of Evans et al. (2019), in which the authors found that a low covertness advertising format elicited more advertising recognition than a high covertness advertising format (in an analogy with our study, a disclosure with a higher level of transparency is less covert than a disclosure with a lower level of transparency). To our knowledge, there are no studies comparing two disclosures in terms of understanding of selling intent and understanding of persuasive intent to which we can compare results. Moreover, when comparing the disclosures, also no differences were found in children's

attitudes towards the brand and requests to purchase the products. However, there seems to be a trend of increased purchase request in the condition with a disclosure with a lower level of transparency.

Thus, our third conclusion is that when a disclosure with a higher level of transparency is compared with a disclosure with a lower level of transparency, the presence of the sponsor's logo in the disclosure, using a language that more clearly explains the paid nature of the video and using more contrasting colours in the design does not increase children's advertising literacy nor changes brand responses comparing with a disclosure with no logo, more dubious language and in black and white colours (contrary with past research with adults of Amazeen & Wojdyski (2020); De Jans et al. (2018b); De Jans & Hudders (2020); Tessitore & Geuens (2013); Wojdyski & Evans (2020)). The lack of differences between both conditions could possibly be explained by the fact that, despite the intention to design two disclosures distinctively different in terms of how transparent they were about the advertising nature of the video, maybe the difference in the level of transparency was not as noticeable as expected.

Additionally, sponsorship transparency does not mediate the effect of disclosures on purchase request nor brand attitude via any of the components of advertising literacy. The original Sponsorship Transparency Scale (Wojdyski et al., 2018) was designed for adults, and we tried to adapt the scale to child respondents. However, the low reliability displayed by two of the Sponsorship Transparency's Subscales (namely "Brand Presence" and "Sponsor Clarity") is a limitation of this study's questionnaire.

Additional information can be extracted from this study in what concerns (Portuguese) children's YouTube viewing habits. For example, according to children's parents/guardians, kid's most-watched type of content is, in order: gaming videos, music or dance videos, and daily vlogs, followed by unboxing videos, other types of content (such as sports, comedy, and educational videos), makeup and fashion videos and review videos. Participants in this study, therefore, watch the same kind of content as what is usually most-watched children (Boerman & van Reijmersdal, 2020; De Veirman et al., 2019). This insight might be useful for brands who want to target child consumers on YouTube.

Participants of this sample spend, on average, 1 hour on YouTube each school day and 2 hours each day off, which is around the same time as the reported average of 1 hour and 25

minutes that kids usually spend daily watching videos on YouTube (Perez, 2020). Both the type of content and the time children spend on YouTube were questions asked to parents and not directly to children, however as parents nowadays act as gatekeepers of marketing and advertising related information and co-view and supervise children's online content exposure (Evans et al., 2018), results are believed to be reliable and representative of the reality.

Practically, this study has implications for regulation and brands/advertisers. For regulation, it is demonstrated that disclosures (such as the ones used in this study that are following current guidelines) can be an important tool to enhance children's ability to understand the commercial nature of sponsored videos on YouTube among children aged 10-12 years old, as the presence of a disclosure increases children's ability to recognize advertising and understand the selling intent of the video. This should help build the body of empirical research that could be the base for new and improved regulation regarding the matter in the future.

For management, the practical implications are that brands benefit from ethically disclaiming the commercial nature of the sponsored YouTube video targeting children by asking the youtubers with whom they establish partnerships to include a disclosure at the beginning of the video. Current regulation makes it optional to disclose the advertisement in the video, but we believe that in the future and with more studies demonstrating its efficiency like this one, it will eventually be mandatory, so brands who adopt it earlier may cause better impressions to their consumers. Managers may be hesitant to use any strategy that draws attention to the sponsored or promotional character of the communication being apprehensive of possible related negative brand responses, but transparency is a corporate value that consumers pay close attention to (and we have seen that a company can be transparent in many ways, including disclosing native advertising) (Evans et al., 2018). Moreover, we have demonstrated that not only a disclosure helps children recalling more of the brand, but it may also even increase their requests to purchase the advertised products, while not negatively impacting their perceptions of the brand. Therefore, it can be concluded that a disclosure can be a fair way to help children being more aware of advertising tactics targeted to them while being beneficial for brands as well.

6. Limitations and Future Research

Whilst this study provides new information about children's perceptions of advertising on sponsored online videos and the impact of disclosures on the transparency of its commercial nature, it is not free of limitations that translate into suggestions for future research.

First, this study used two specific disclosures with specific language and design (based on current regulations). Future research is needed to further test these two disclosures. Furthermore, even though one disclosure was formulated and designed to be more transparent regarding the sponsorship than the other, no significant differences were found, which means that maybe the difference in the level of transparency was not that noticeable. This also means that future research could test which one of them is better formulated and should be used, or which disclosures' characteristics matter the most for perceptions of transparency.

Second, it should be noted that this study aimed to study the impact of a disclosure in (any) sponsored video targeted at children, independently of the youtuber who created the video. As such, no para-social relationship with the youtuber was measured, as the goal was to suggest disclosures applicable to videos from any youtuber. However, some research implies that when children have a positive attitude towards the advertising source, then it may transfer into a positive attitude towards the advertised products (e.g. De Droog et al., 2011, 2012). As such, future research could consider evaluating the PSR with different youtubers used as stimuli and investigate if differences in brand attitudes are verified.

In accordance, this study used one YouTube video made by one specific male Portuguese youtuber for one specific brand. Therefore, results and findings may not apply to different types of videos, youtubers, or brands. Also, in the chosen video, the promotion to the products was quite evident and the brand name was mentioned several times, but that is definitely not the case of most sponsored videos on the platform, where the promotion of the products is hardly conspicuous, and the brand name is purposefully hidden. The type of product may also play a role: the one used in stimulus material was school appliances and results may not be the same in the presence of other products (for example, more expensive products or with social value). Thus, future research is required to assess if results are the same and if the presence of disclosures induces the same effects for other types of videos, youtubers, brands, and products, and could also use stimulus with lower prominence of advertising.

Third, this study showed that a disclosure did enhance children's understanding of selling intent but not their understanding of persuasive intent. It may be that children aged 10-12 years old are still not able to acknowledge that content with a persuasive intent aims to alter their thoughts and feelings, and can only understand the intent to change tangible as it happens with the understanding of selling intent (Boerman & van Reijmersdal, 2020). According to past evidence, the understanding of selling intent develops earlier than the understanding of persuasive intent (John, 1999). So, research is needed to further understand if children aged 10-12 years old already grasp the two concepts.

At last, this study focuses on children aged 10-12 years old. It is beneficial to researchers, in terms of variability (error) reducing, to limit the focus to a small range of ages to ensure that the sample is similar in terms of cognitive and social development, likes and preferences, media viewing and that have close knowledge regarding advertising (van Reijmersdal et al., 2020). However, it is simultaneously a disadvantage as the findings of this research cannot be extended to children younger than 10 nor older than 12. Future research could also examine this issue in children included in other age groups, particularly younger children, as the research is even more scarce among them.

As it was stated by previous research and proved by this study, empirical studies on the effects of disclosures in informing children about advertising in embedded formats such as YouTube are scarce, and results are mixed. Subsequently, more research is needed to generalize results and contribute to this area of knowledge in the scope of influencer marketing and children's consumer behavior.

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Appendixes

Appendix 1 - Parents' Consent Form



Rita Inês Cunha Meira Carvalho
FEP – Faculdade de Economia da Universidade do Porto
Rua Dr. Roberto Frias
4200-464 Porto

Assunto: Pedido de participação num estudo sobre *influencers* no YouTube

Exmo(a). Sr(a). Encarregado de Educação,

O meu nome é Inês Carvalho e sou aluna finalista do Master in Management na Faculdade de Economia do Porto, e encontro-me a realizar a minha investigação na área do comportamento do consumidor infantil.

Para este efeito, estou a realizar um estudo sobre o marketing de influência na plataforma YouTube e as crianças. Para tal, solicito, por favor, a sua autorização para que o(a) seu educando(a) preencha um questionário no _____ após visualização de um curto vídeo do Youtube de um youtuber português muito conhecido pelas crianças e jovens. Necessito, também, por favor, que o(a) Sr(a) responda a umas breves questões, anexadas na segunda página desta autorização, de modo a facilitar alguma da informação necessária. Por favor entregue ambas as folhas ao/à Professor(a), através do seu educando, sem as separar.

As respostas aos questionários e dados recolhidos serão tratados com toda a confidencialidade e apenas analisados por mim. Os resultados do estudo serão publicados apenas na minha tese e não será feita qualquer identificação ou referência a dados pessoais dos alunos, dos pais ou dos professores envolvidos, nem será identificado o _____ nem demais locais onde o estudo foi realizado. Os resultados finais do estudo poderão também ser apresentados em conferências, artigos/livros ou notícias relacionadas com tema – mais uma vez com a garantia de total confidencialidade. Após finalização e publicação da tese, os resultados serão enviados para o _____ e poderão ser consultados por todos os encarregados de educação que o desejarem.

Desde já agradeço a colaboração com este estudo.
Com os melhores cumprimentos,

Inês Meira Carvalho

Autorizo o(a) meu educando(a) com o número de aluno _____, do _____º ano, turma _____, a participar neste estudo.

_____, ____ de _____, de 2021.

Assinatura do(a) Encarregado de Educação:

Appendix 2 - Parents' Questionnaire

Qual a idade do seu educando(a)? Por favor coloque a idade nos espaços.

anos.

Qual o género do seu educando(a)? Por favor coloque um X na sua opção.

Feminino Masculino

Quantas horas, aproximadamente, o seu educando(a) passa a ver vídeos no YouTube, num dia de escola?

Nenhuma Menos de 1 hora Entre 1 hora e 2 horas
 Mais de 2 horas Não sei.

Quantas horas, aproximadamente, o seu educando(a) passa a ver vídeos no YouTube, num dia de fim de semana/feriado/férias?

Nenhuma Menos de 1 hora Entre 1 hora e 2 horas
 Mais de 2 horas Não sei.

Que tipo de conteúdo o seu educando(a) gosta de ver no YouTube? Por favor coloque um X na sua opção, sendo que pode seleccionar mais que uma opção.

- Nenhum.
- Vídeos de música ou dança.
- Vídeos de maquilhagem/moda.
- Vídeos de gaming (onde o/a youtuber está a jogar videojogos).
- Vídeos de reviews (onde o/a youtuber está a dar a sua opinião sobre algum produto).
- Vídeos de unboxing (onde o/a youtuber abre e experimenta pela primeira vez brinquedos ou tecnologia).
- Vlogs sobre o dia a dia do/a youtuber.
- Não sei.
- Outro.
Qual? _____

Appendix 3 - Link to the Video and Disclosures



Figure 1: "screenshot" of the YouTube video used in this experiment. Link to the original video on the platform: <https://www.youtube.com/watch?v=usYkvx0SI2U&t=197s>



Figure 4: Experimental Group 1 Disclosure



Figure 5: Experimental Group 2 Disclosure

Appendix 4 - Children's Questionnaire

Estudo de Tese - Mestrado em Gestão

Olá!

Estou a fazer um estudo para a minha tese de Mestrado em Gestão e, para isso, gostaria de te fazer algumas questões, após visualizares um vídeo que te vai ser mostrado. As questões estão relacionadas com as tuas opiniões, gostos, hábitos, etc.

Para preencheres este questionário deves ter a autorização prévia do teu encarregado de educação, mas o preenchimento do questionário é opcional. Ou seja, mesmo que tenhas a autorização, apenas preenches o questionário se o desejares fazer.

Os dados que estou a recolher são totalmente confidenciais e não aparecerão em lado nenhum o teu nome, o dos teus professores, ou da instituição onde está a ser realizado o estudo. Apenas os resultados finais poderão ser publicados quer na tese quer em artigos científicos, livros, notícias, etc, mas sempre respeitando este acordo de confidencialidade.

A tua opinião é muito importante e é ela que pretendo obter ao realizar este estudo. Não há respostas certas nem erradas, é apenas a tua opinião! Se preencheres este questionário estarás a ajudar-me na minha tese a contribuir para a investigação com crianças e jovens.

Muito obrigada,
Inês Carvalho

***Obrigatório**

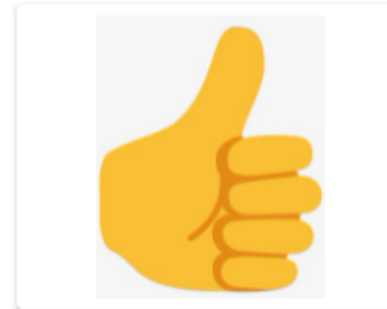
Insere aqui o código que a investigadora te deu. *

A sua resposta

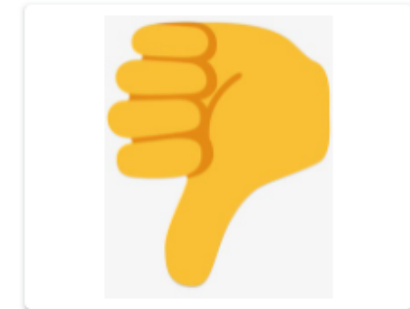
Secção 1

Responde às seguintes questões selecionando a tua opção.

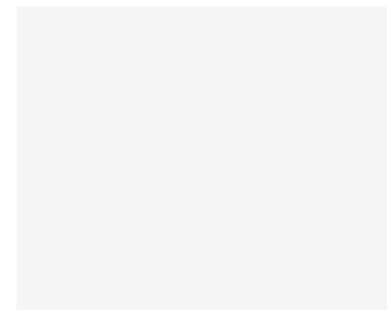
Já alguma vez tinhas visto este vídeo? *



Sim



Não



Não quero responder.

Secção 2

Responde às seguintes questões selecionando a tua opção.

Viste publicidade enquanto vias este vídeo do D4rk? *



Não, de certeza que não.



Acho que não.



Talvez não.



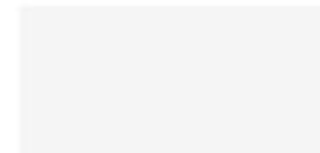
Talvez sim.



Acho que sim.



Sim, de certeza que sim.



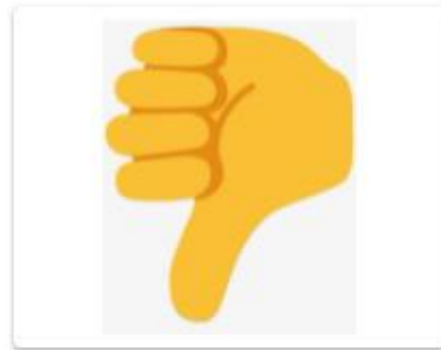
Se tiveres visto alguma marca neste vídeo, escreve o nome da marca aqui em baixo. Se não tiveres visto, não escrevas nada.

A sua resposta

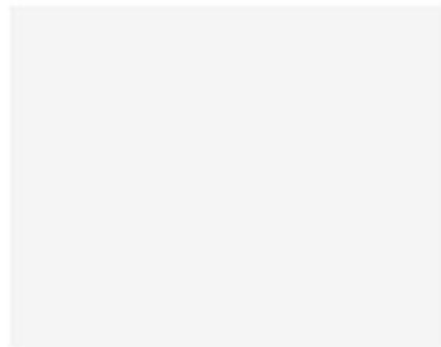
Já conhecias este youtuber? *



Sim



Não



Não quero responder.

Com que frequência vês os vídeos deste youtuber?

De 1 (Nunca vejo) a 6 (Vejo todos os dias). Se não quiseres responder, passa para a próxima pergunta.

1 2 3 4 5 6

Nunca



Todos os dias

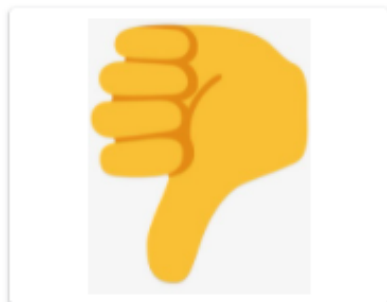
Secção 3

Responde às seguintes questões selecionando a tua opção.

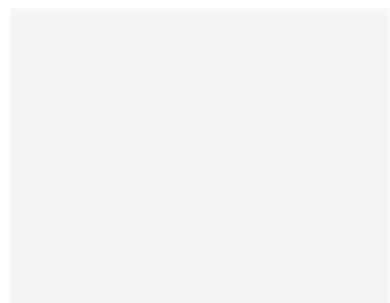
Já conhecias a Note? *



Sim



Não

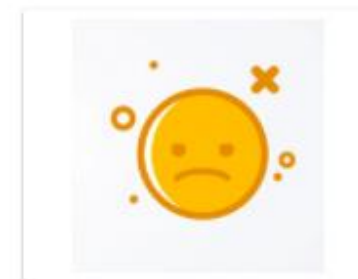


Não quero responder.

Assinala o quanto gostas da Note: *



Não gosto nada!



Não gosto.



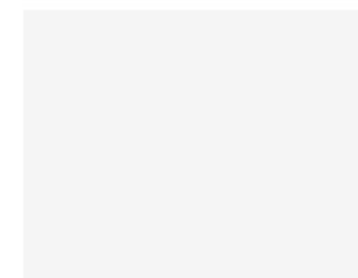
Não gosto nem desgosto.



Gosto.

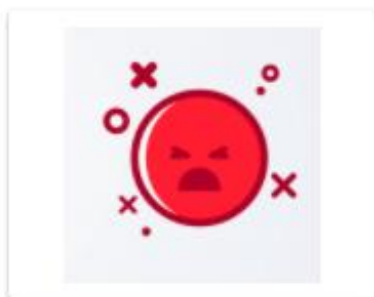


Gosto muito!

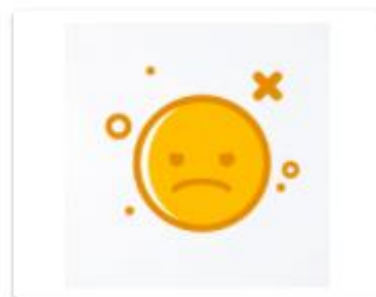


Não quero responder.

Quão fixe achas que é a Note? *



Não é nada fixe!



É pouco fixe.



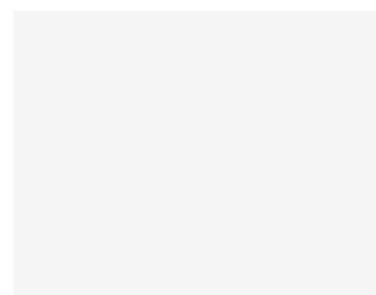
É mais ou menos fixe.



É fixe.

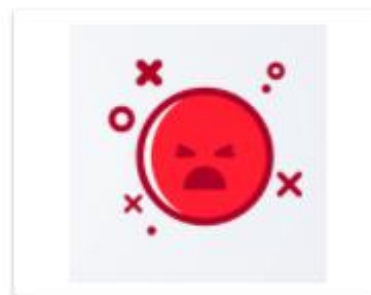


É muito fixe!

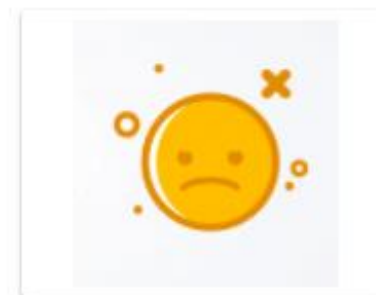


Não quero responder.

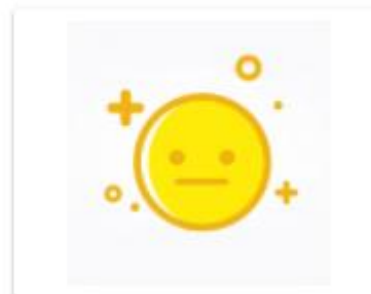
Quantas estrelas davas à Note? *



1 estrela



2 estrelas



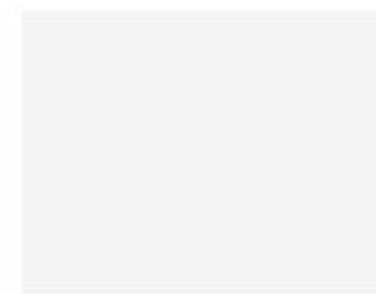
3 estrelas



4 estrelas

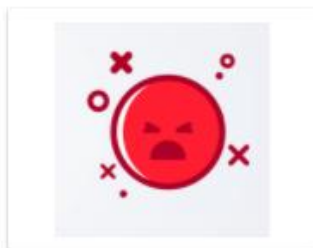


5 estrelas

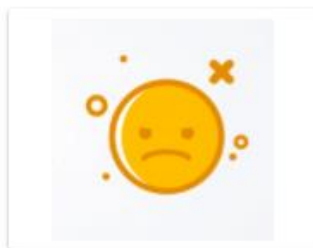


Não quero responder.

Vais pedir aos teus pais/encarregados de educação para te comprarem os produtos Note? *



De certeza que não!



Não.



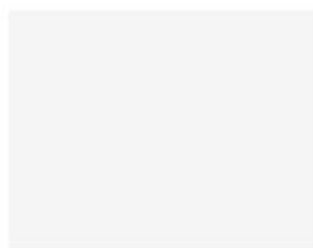
Talvez.



Sim.



De certeza que sim!



Não quero responder.

Seção 4

Mais uma vez gostava de saber a tua opinião, e por isso, gostava que selecionas a tua opção, de 1 (não, de certeza que não) a 5 (sim, de certeza que sim). Lembra-te que não há respostas certas nem erradas!

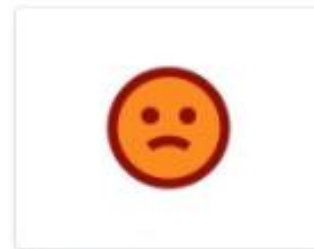
O vídeo foi feito para que as crianças como tu pedissem aos pais/encarregados de educação para comprarem produtos Note? *



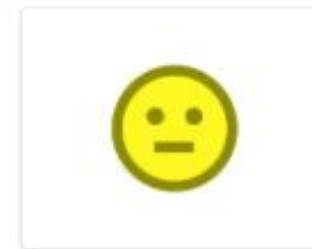
Não, de certeza que não.



Acho que não.



Talvez não.



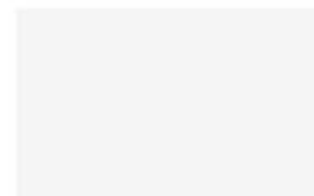
Talvez sim.



Acho que sim.



Sim, certeza que sim.



O vídeo foi feito para as pessoas comprarem produtos Note? *



Não, de certeza que não.



Acho que não.



Talvez não.



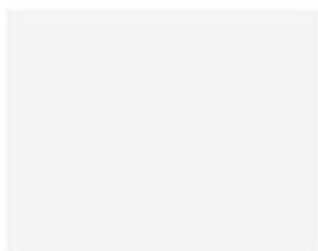
Talvez sim.



Acho que sim.



Sim, de certeza que sim.



Não quero responder.

O vídeo foi feito para te fazer comprar produtos Note com dinheiro do teu mealheiro? *



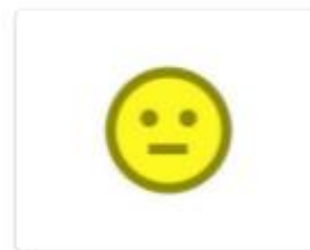
Não, de certeza que não.



Acho que não.



Talvez não.



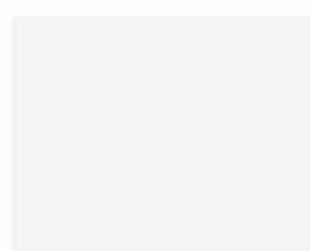
Talvez sim.



Acho que sim.



Sim, de certeza que sim.



Não quero responder.

O vídeo foi feito para fazer as pessoas gostarem dos produtos Note? *



Não, de certeza que não.



Acho que não.



Talvez não.



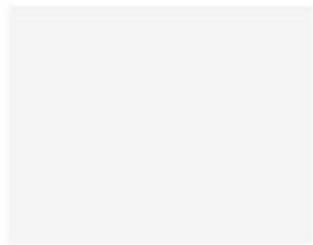
Talvez sim.



Acho que sim.



Sim, de certeza que sim.



Não quero responder.

O vídeo foi feito para fazer as pessoas quererem ter produtos Note? *



Não, de certeza que não.



Acho que não.



Talvez não.



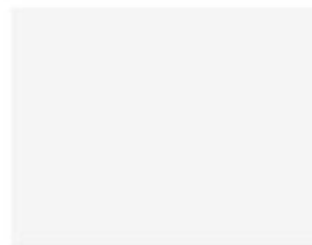
Talvez sim.



Acho que sim.



Sim, de certeza que sim.



Não quero responder.

O vídeo foi feito para fazer as pessoas terem opinião positiva sobre a Note? *



Não, de certeza que não.



Acho que não.



Talvez não.



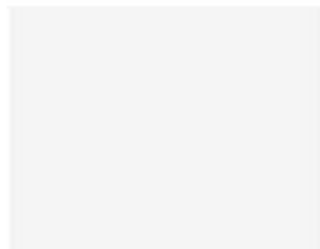
Talvez sim.



Acho que sim.



Sim, de certeza que sim.



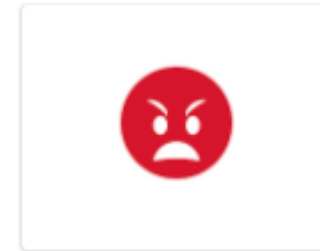
Não quero responder.

Seção 6 - Está quase a acabar!

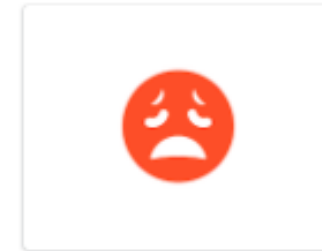
São agora apresentadas algumas afirmações e pede-se que indique se concorda ou não com elas, selecionando a sua opção, de 1 (Discordo totalmente) a 7 (Concordo totalmente).

Acho que... *

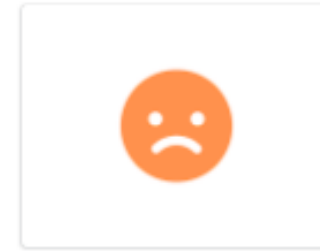
Existe nitidamente a presença de uma merce no vídeo.



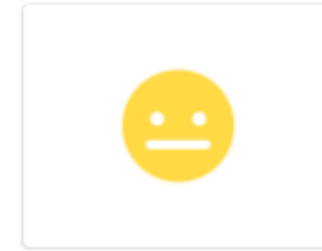
Discordo totalmente.



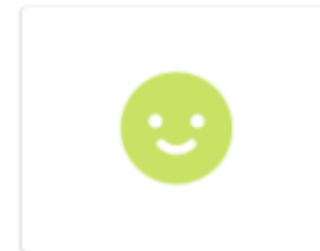
Discordo muito.



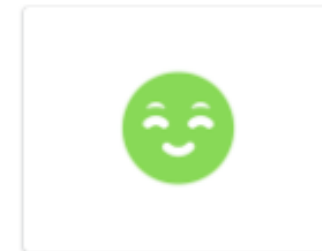
Discordo pouco.



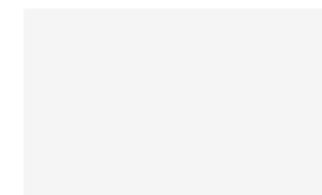
Indiferente.



Concordo pouco.

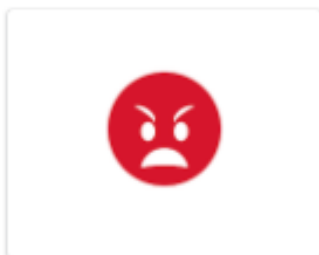


Concordo muito.

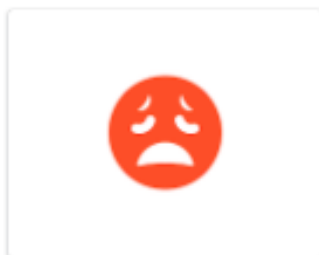


Achas que...*

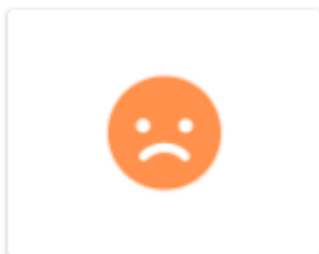
Ére óbvio que o vídeo tinha uma mercê 'por trás'.



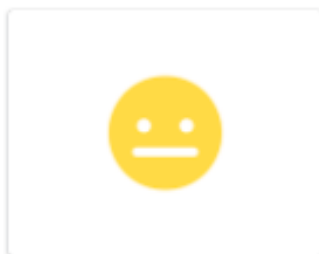
Discordo totalmente.



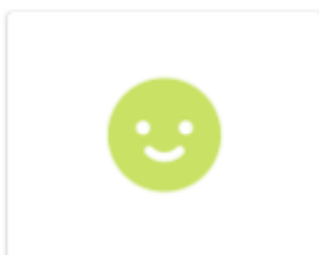
Discordo muito.



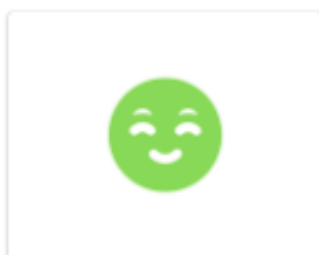
Discordo pouco.



Indiferente.



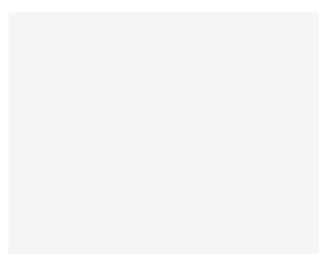
Concordo pouco.



Concordo muito.



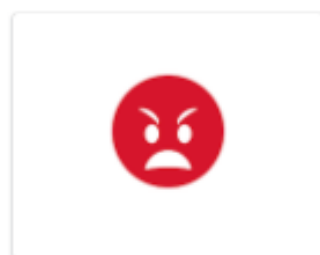
Concordo totalmente.



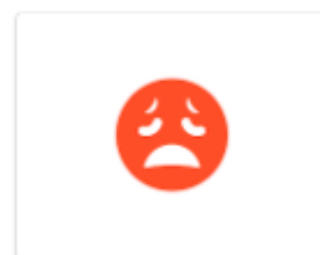
Não quero responder.

Achas que...*

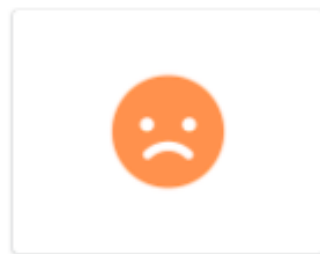
O vídeo transmite de maneira clara os produtos que estavam a ser promovidos.



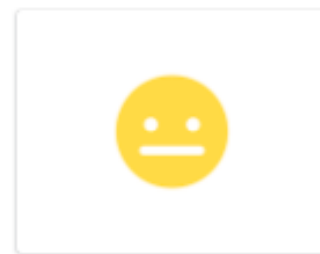
Discordo totalmente.



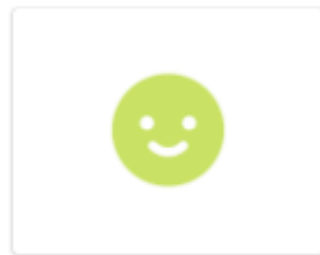
Discordo muito.



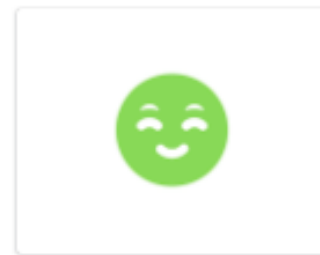
Discordo pouco.



Indiferente.



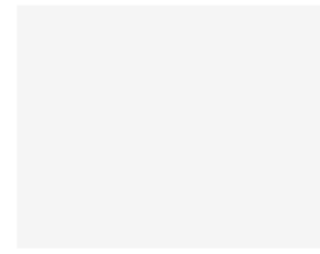
Concordo pouco.



Concordo muito.



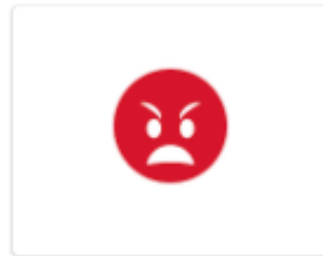
Concordo totalmente.



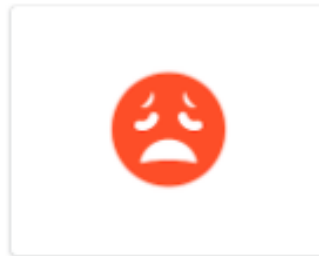
Não quero responder.

Achas que... *

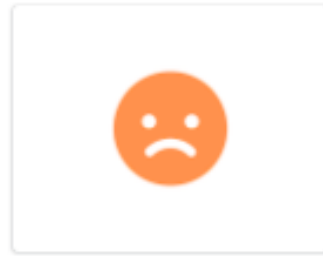
Não ficou claro quem pegou pelo vídeo.



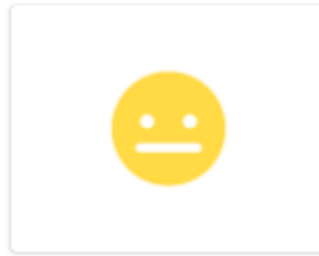
Discordo totalmente.



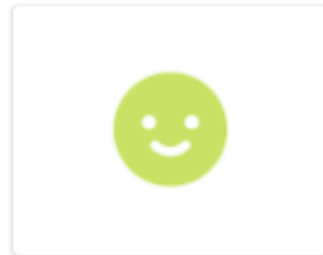
Discordo muito.



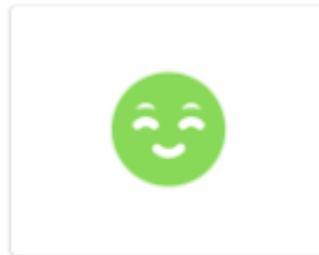
Discordo pouco.



Indiferente.



Concordo pouco.



Concordo muito.



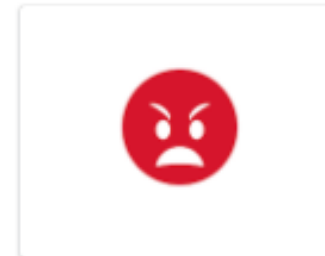
Concordo totalmente.



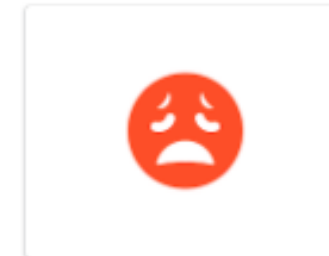
Não quero responder.

Achas que... *

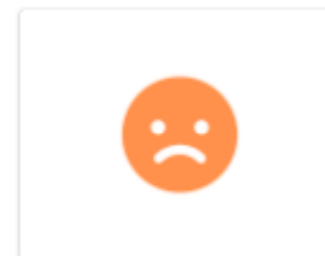
Ficou claro quem patrocinou este vídeo.



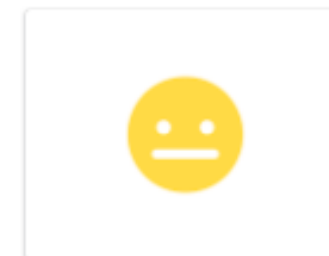
Discordo totalmente.



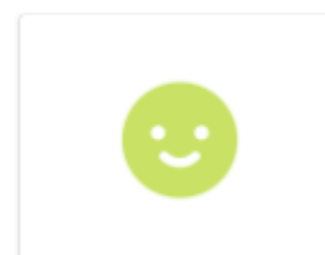
Discordo muito.



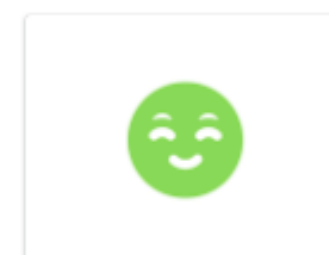
Discordo pouco.



Indiferente.



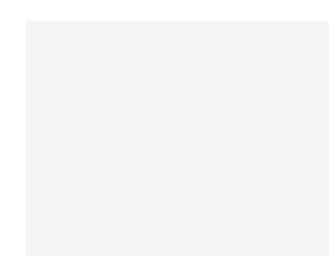
Concordo pouco.



Concordo muito.



Concordo totalmente.



Não quero responder.

Achas que... *

O nome do enunciente ficou muito óbvio no vídeo.



Discordo totalmente.



Discordo muito.



Discordo pouco.



Indiferente.



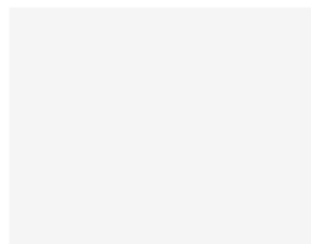
Concordo pouco.



Concordo muito.



Concordo totalmente.



Não quero responder.

Achas que... *

Foi dito no vídeo que o mesmo era um anúncio publicitário.



Discordo totalmente.



Discordo muito.



Discordo pouco.



Indiferente.



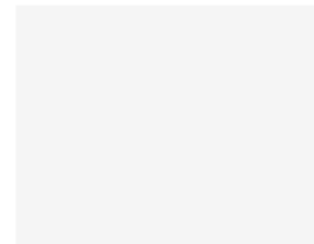
Concordo pouco.



Concordo muito.



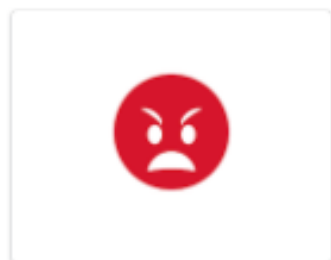
Concordo totalmente.



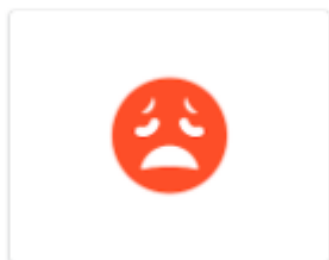
Não quero responder.

Achas que... *

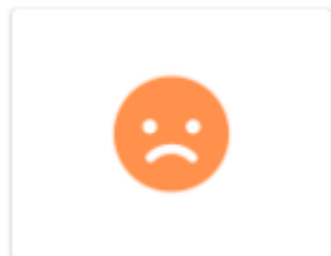
Foi dito no vídeo que o meamo foi patrocinado.



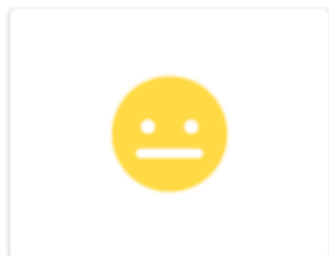
Discordo totalmente.



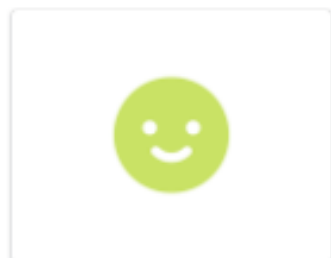
Discordo muito.



Discordo pouco.



Indiferente.



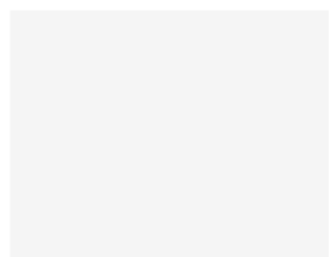
Concordo pouco.



Concordo muito.



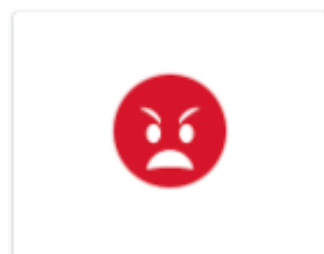
Concordo totalmente.



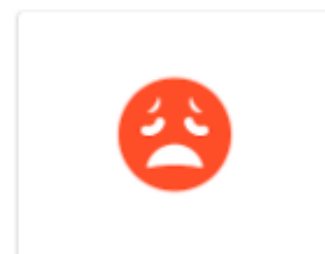
Não quero responder.

Achas que... *

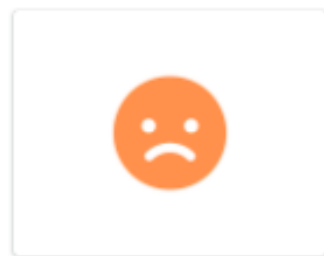
O vídeo foi rotulado como publicidade.



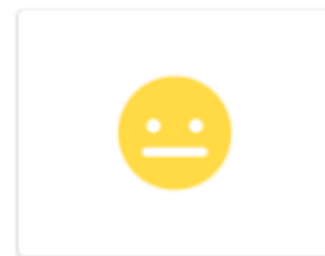
Discordo totalmente.



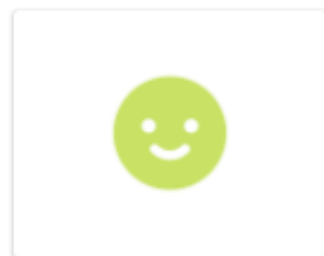
Discordo muito.



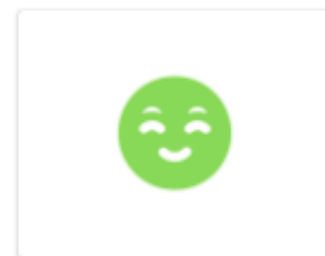
Discordo pouco.



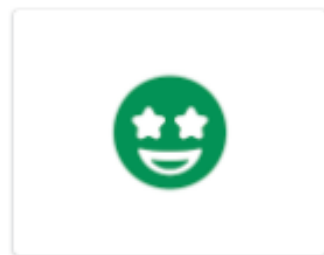
Indiferente.



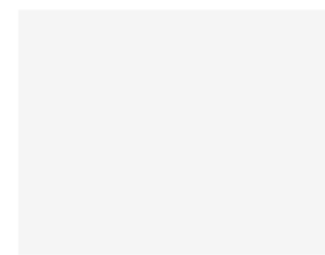
Concordo pouco.



Concordo muito.



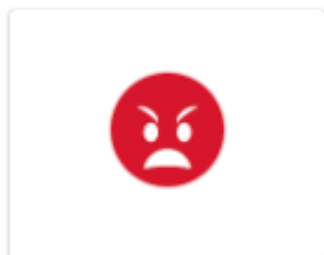
Concordo totalmente.



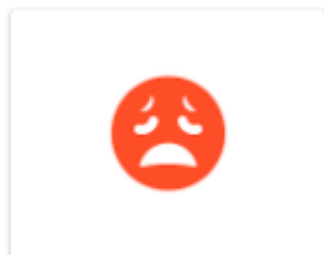
Não quero responder.

Achas que... *

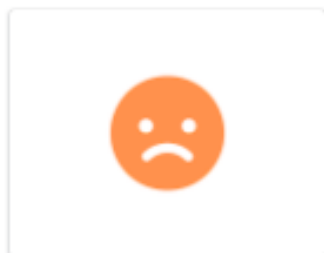
O vídeo tentou levar os consumidores a acharem que não era uma publicidade.



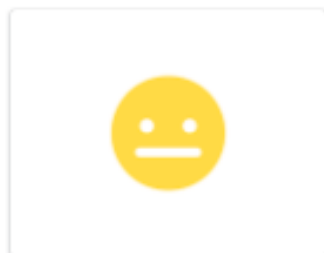
Discordo totalmente.



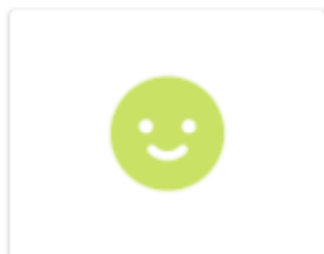
Discordo muito.



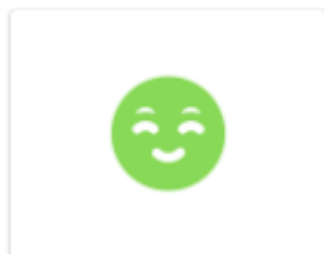
Discordo pouco.



Indiferente.



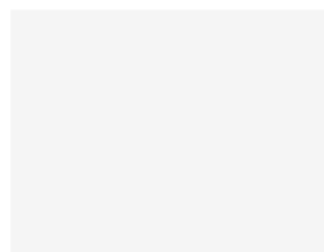
Concordo pouco.



Concordo muito.



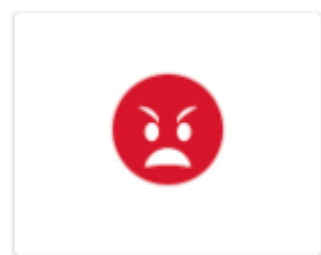
Concordo totalmente.



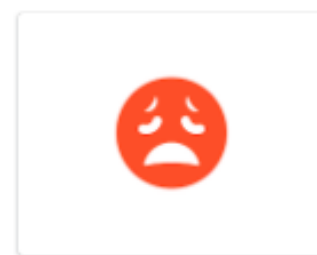
Não quero responder.

Achas que... *

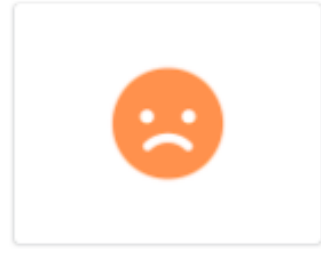
A marca tentou esconder o facto que o vídeo é um anúncio publicitário.



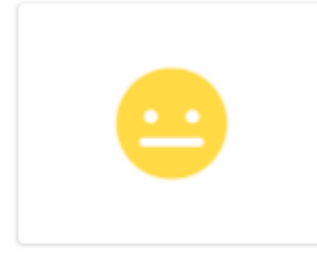
Discordo totalmente.



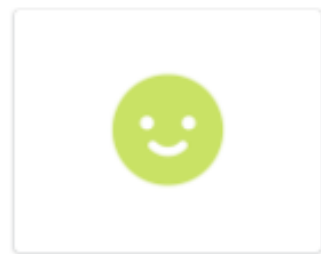
Discordo muito.



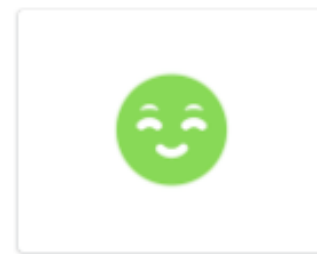
Discordo pouco.



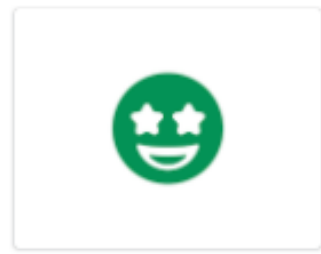
Indiferente.



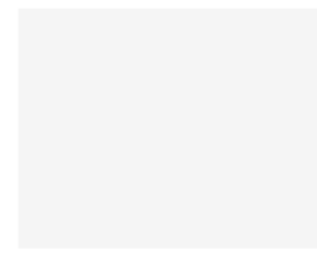
Concordo pouco.



Concordo muito.



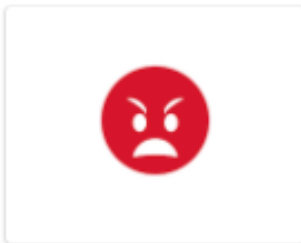
Concordo totalmente.



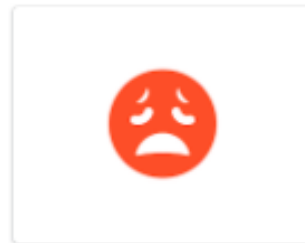
Não quero responder.

Achas que... *

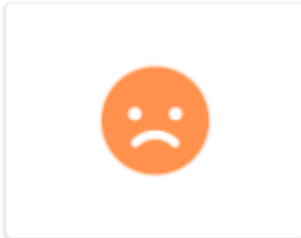
O vídeo tentou enganar os visualizadores do mesmo sobre o facto de que é uma publicidade.



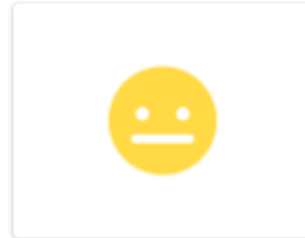
Discordo totalmente.



Discordo muito.



Discordo pouco.



Indiferente.



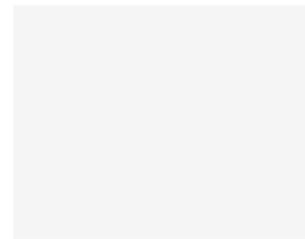
Concordo pouco.



Concordo muito.



Concordo totalmente.



Não quero responder.

Estudo de Tese - Mestrado em Gestão

*Obrigatório

Secção 6 - Por último...

Quantos anos tens?

A sua resposta

Tu és... *

- Um rapaz.
- Uma rapariga.
- Não quero responder.

Anterior

Submeter

Figure 47: Questionnaire final section for the Experimental Group 1 (with Manipulation Check)

Secção 6 - Por último...

Viste um texto branco escrito num fundo preto no início do vídeo? O que estava escrito? Selecciona a tua opção. *

- Sim vi, estava escrito: "O D4rkFrame e a Note criaram este vídeo em parceria."
- Sim vi, estava escrito: "Este é um vídeo do YouTube".
- Sim vi, estava escrito: "O D4rkFrame espera que gostes deste vídeo!"
- Sim vi, mas não me lembro do que estava escrito.
- Não, não havia nenhum texto no início do vídeo.
- Não quero responder.

Quantos anos tens?

A sua resposta _____

Tu és... *

- Um rapaz.
- Uma rapariga.
- Não quero responder.

[Anterior](#) [Submeter](#)

Figure 36: Questionnaire final section for the Experimental Group 2 (with Manipulation Check)

Secção 6 - Por último...

Viste um texto branco escrito num fundo preto no início do vídeo? O que estava escrito? Selecciona a tua opção. *

- Sim vi, estava escrito: "Este vídeo contém publicidade paga pela: Note!"
- Sim vi, estava escrito: "Este é um vídeo do YouTube".
- Sim vi, estava escrito: "O D4rkFrame espera que gostes deste vídeo!"
- Sim vi, mas não me lembro do que estava escrito.
- Não, não havia nenhum texto no início do vídeo.
- Não quero responder.

Quantos anos tens?

A sua resposta _____

Tu és... *

- Um rapaz.
- Uma rapariga.
- Não quero responder.

[Anterior](#) [Submeter](#)

Appendix 5 - Sponsorship Transparency Scale

Table 17: Adaptation of the Sponsorship Transparency Scale (Wojdyski, Evans, & Hoy 2018) for children and Portuguese language

ST Subscales	Items
Brand Presence	PT: Havia nitidamente a presença de uma marca no vídeo. EN: There was a clear presence of a brand in the [game/video].
	PT: Era óbvio que o vídeo tinha uma marca "por trás". EN: The [game/video] was clearly branded.
	PT: O vídeo transmitia de maneira clara os produtos que estavam a ser promovidos. EN: The [game/video] clearly conveyed the product or service that was being promoted.
Sponsor Clarity	Não ficou claro quem pagou pelo vídeo. (Invertida) EN: It was unclear who paid for the [game/video]. (Reversed)
	PT: Ficou claro quem patrocinou este vídeo. EN: It was clear who sponsored this [game/video].
	PT: O nome do anunciante ficou muito óbvio no vídeo. EN: The [game/video] made the name of the advertiser very obvious.
Disclosure	PT: Foi dito no vídeo que o mesmo era um anúncio publicitário. EN: The [game/video] said it was an advertisement.
	PT: Foi dito no vídeo que o mesmo foi patrocinado. EN: The [game/video] said it was sponsored.
	PT: O vídeo foi rotulado como publicidade. EN: The [game/video] was labeled as advertising.
Lack of Deception	PT: O vídeo tentou levar os consumidores a acharem que não era uma publicidade. EN: This [game/video] was trying to fool consumers into thinking it wasn't advertising. (Reversed).
	PT: A marca tentou esconder o facto que o vídeo é um anúncio publicitário. (Invertida) EN: The advertiser tried to obscure the fact that this was an ad. (Reversed)
	PT: O vídeo tentou enganar os visualizadores do mesmo sobre o facto de que é uma publicidade. (Invertida) EN: The [game/video] tried to deceive the viewer about the fact that it was advertising. (Reversed)

Table 18: Comparison of ST subscale items between control and experimental groups

Item	Control	Experimental		Statistical Test
		1	2	
STBranPres1	6 (5-7)	7 (6-7)	7 (6-7)	H = 8.802, $p = 0.012^*$
STBranPres2	6 (4-7)	6 (5-7)	6.5 (4-7)	H = 1.218, $p = 0.544$
STBranPres3	6 (6-7)	6.5 (4.5-7)	7 (4-7)	H = 0.064, $p = 0.968$
STSponClar1	4 (1-5)	4 (1-6)	3.5 (1-6)	H = 0.216, $p = 0.898$
STSponClar2	6 (5-7)	7 (6-7)	7 (7-7)	H = 14.038, $p = 0.001^*$
STSponClar3	6 (5-7)	7 (6-7)	7 (6-7)	H = 1.471, $p = 0.479$
STDisc1	3 (1-4.75)	5 (4-6)	6 (3-7)	H = 23.268, $p < 0.001^*$
STDisc2	4 (2-5)	5 (4-7)	6.5 (5-7)	H = 21.737, $p < 0.001^*$
STDisc3	5 (4-6)	6 (4-7)	6 (4-7)	H = 5.025, $p = 0.081$
STLackDecp1	4 (2-6)	4 (1-6)	2 (2-5)	H = 3.450, $p = 0.178$
STLackDecp2	4 (2-6)	3 (1-5)	3 (1.5-5)	H = 4.719, $p = 0.094$
STLackDecp3	4 (1.75-5)	3 (1-5)	4 (2-5.5)	H = 3.568, $p = 0.168$

Multiple Comparisons of significant results in the Kruskal-Wallis test:

- STBranPres1
 - Control vs Exp 1: $p = 0.113$
 - **Control vs Exp 2: $p = 0.013$**
 - Exp 1 vs Exp 2: $p = 0.445$
- STSponClar2
 - **Control vs Exp 1: $p = 0.023$**
 - **Control vs Exp 2: $p = 0.001$**
 - Exp 1 vs Exp 2: $p = 0.376$
- STDisc1
 - **Control vs Exp 1: $p < 0.001$**
 - **Control vs Exp 2: $p < 0.001$**
 - Exp 1 vs Exp 2: $p = 0.749$
- STDisc2
 - **Control vs Exp 1: $p = 0.017$**
 - **Control vs Exp 2: $p < 0.001$**
 - Exp 1 vs Exp 2: $p = 0.199$

Appendix 6 - Mediation Analysis for H4

Table 19: Direct and Indirect Effects of Mediation Analysis for H4

	Pathway	b	p	BCa 95% CI
Advertising Recognition	Group → Advertising Recognition	0.417	0.324	
	Advertising Recognition → Purchase Request	0.038	0.629	
	Group → Advertising Recognition → Purchase Request	-0.389	0.145	
	Direct effect	-0.418	0.126	
	<u>Indirect effect (mediated by ST)*</u>	0.022		[-0.157, 0.169]
Understanding of Selling Intent	Group → Understanding of Selling Intent	0.472	0.459	
	Understanding Selling Intent → Purchase Request	-0.035	0.489	
	Group → Understanding of Selling Intent → Purchase Request	-0.389	0.145	
	Direct effect	-0.391	0.501	
	<u>Indirect effect (mediated by ST)*</u>	-0.035		[-0.224, 0.079]
Understanding of Persuasive Intent	Group → Understanding of Persuasive Intent	-0.075	0.888	
	Understanding of Persuasive Intent → Purchase Request	0.067	0.271	
	Group → Understanding of Persuasive Intent → Purchase Request	-0.391	0.137	
	Direct effect	-0.393	0.141	
	<u>Indirect effect (mediated by ST)*</u>	-0.011		[-0.173, 0.121]

Appendix 7 - Descriptive Statistics

Table 20: Frequency of Age

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10 years	37	27,6	27,6	27,6
	11 years	64	47,8	47,8	75,4
	12 years	33	24,6	24,6	100,0
	Total	134	100,0	100,0	

Table 21: Central Tendency and Dispersion of Age

Statistics		
Age		
N	Valid	134
	Missing	0
Mean		10,97
Median		11,00
Mode		11
Std. Deviation		,725

Table 22: Frequency of School Year

		School Year			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5th grade	61	45,5	45,5	45,5
	6th grade	73	54,5	54,5	100,0
	Total	134	100,0	100,0	

Table 23: Central Tendency and Dispersion of School Year

Statistics		
School Year		
N	Valid	134
	Missing	0
Mean		5,54
Median		6,00
Mode		6
Std. Deviation		,500

Table 24: Frequency of Gender

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	71	53,0	53,0	53,0
	Female	63	47,0	47,0	100,0
	Total	134	100,0	100,0	

Table 25: Central Tendency and Dispersion of School Year

Statistics		
Gender		
N	Valid	134
	Missing	0
Mean		,47
Median		,00
Mode		0
Std. Deviation		,501

Table 26: Frequency of Prior Exposure to the Specific Video

Control: prior exposure to the specific video. Have you ever seen this video?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	110	82,1	82,1	82,1
	Yes	24	17,9	17,9	100,0
	Total	134	100,0	100,0	

Table 27: Frequency of Youtuber Familiarity

Control: familiarity with the youtuber. Did you know this youtuber before?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	39	29,1	29,1	29,1
	Yes	95	70,9	70,9	100,0
	Total	134	100,0	100,0	

Table 28: Frequency of Viewing the youtuber's videos

Control: frequency of viewing this youtuber videos (Com que frequência vês os vídeos deste youtuber?)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nunca	77	57,5	57,5	57,5
	2	31	23,1	23,1	80,6
	3	14	10,4	10,4	91,0
	4	3	2,2	2,2	93,3
	5	1	,7	,7	94,0
	Todos os Dias	7	5,2	5,2	99,3
	66	1	,7	,7	100,0
	Total	134	100,0	100,0	

Table 29: Frequency of Brand Familiarity

Control: familiarity with the brand. Did you know Note (brand) before?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	6	4,5	4,5	4,5
	Yes	128	95,5	95,5	100,0
	Total	134	100,0	100,0	

Appendix 8 - Homogeneity Tests

Table 30: Age per Group (0= Control Group, 1= Experimental Group 1, 2=Experimental Group 2)

Descriptives									
Age									
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
0	45	10,91	,763	,114	10,68	11,14	10	12	
1	43	11,00	,690	,105	10,79	11,21	10	12	
2	46	11,00	,730	,108	10,78	11,22	10	12	
Total	134	10,97	,725	,063	10,85	11,09	10	12	
Model	Fixed Effects		,729	,063	10,85	11,09			
	Random Effects			,063 ^a	10,70 ^a	11,24 ^a			-,009

a. Warning: Between-component variance is negative. It was replaced by 0.0 in computing this random effects measure.

Table 31: ANOVA test Age per Group

ANOVA					
Age					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,236	2	,118	,222	,801
Within Groups	69,644	131	,532		
Total	69,881	133			

Table 32: Crosstab Gender (0=Male, 1=Female) per Group (0= Control Group, 1= Experimental Group 1, 2=Experimental Group 2)

Gender * Group Crosstabulation					
Count					
		Group			Total
		0	1	2	
Gender	0	24	21	26	71
	1	21	22	20	63
Total		45	43	46	134

Table 33: Chi-square test Gender per Group

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	,530 ^a	2	,767
Likelihood Ratio	,530	2	,767
Linear-by-Linear Association	,095	1	,758
N of Valid Cases	134		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20,22.

Table 34: School Year (5= 5th grade, 6=6th grade) per Group (0= Control Group, 1= Experimental Group 1, 2=Experimental Group 2)

Descriptives

SchoolYear

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
0	45	5,49	,506	,075	5,34	5,64	5	6	
1	43	5,53	,505	,077	5,38	5,69	5	6	
2	46	5,61	,493	,073	5,46	5,76	5	6	
Total	134	5,54	,500	,043	5,46	5,63	5	6	
Model									
Fixed Effects				,501	,043	5,46	5,63		
Random Effects				,043 ^a	5,36 ^a	5,73 ^a			-,002

a. Warning: Between-component variance is negative. It was replaced by 0.0 in computing this random effects measure.

Table 35: ANOVA test School Year per Group

ANOVA

SchoolYear

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,333	2	,166	,662	,517
Within Groups	32,899	131	,251		
Total	33,231	133			

Table 36: Crosstab Familiarity with The Brand (0= No, 1= Yes) per Group (0= Control Group, 1= Experimental Group 1, 2=Experimental Group 2)

ContBrandFam * Group Crosstabulation

Count

		Group			Total
		0	1	2	
ContBrandFam	0	3	1	2	6
	1	42	42	44	128
Total		45	43	46	134

Table 37: Chi-square test Familiarity with the Brand per Group

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	,972 ^a	2	,615
Likelihood Ratio	1,004	2	,605
Linear-by-Linear Association	,278	1	,598
N of Valid Cases	134		

a. 3 cells (50,0%) have expected count less than 5. The minimum expected count is 1,93.

Table 38: Ranks Frequency of Watching Youtuber's Videos per Group

Ranks

	Group	N	Mean Rank
Control frequency of viewing this youtuber videos Com que frequênciavês	0	45	66,62
	1	43	68,50
	2	46	67,42
	Total	134	

Table 39: Kruskal-Wallis Frequency of Watching Youtuber's Videos per Group

Test Statistics^{a,b}

	Control frequency of viewing this youtuber videos Com que frequênciavês
Kruskal-Wallis H	,065
df	2
Asymp. Sig.	,968

a. Kruskal Wallis Test
 b. Grouping Variable: Group

Table 40: Crosstab Familiarity with the Youtuber (0= No, 1= Yes) per Group (0= Control Group, 1= Experimental Group 1, 2=Experimental Group 2)

ContYoutFam * Group Crosstabulation

		Group			Total	
		0	1	2		
ContYoutFam	0	Count	12 ^a	13 ^a	14 ^a	39
		% within Group	26,7%	30,2%	30,4%	29,1%
	1	Count	33 ^a	30 ^a	32 ^a	95
		% within Group	73,3%	69,8%	69,6%	70,9%
Total		Count	45	43	46	134
		% within Group	100,0%	100,0%	100,0%	100,0%

Each subscript letter denotes a subset of Group categories whose column proportions do not differ significantly from each other at the ,05 level.

Table 41: Chi-square test Familiarity with the Youtuber per Group

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	,196 ^a	2	,907
Likelihood Ratio	,197	2	,906
Linear-by-Linear Association	,154	1	,694
N of Valid Cases	134		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12,51.

Table 42: Crosstab Prior Exposure to the Video (0= No, 1= Yes) per Group (0= Control Group, 1= Experimental Group 1, 2=Experimental Group 2)

ContPriorExp * Group Crosstabulation

Count

		Group			Total
		0	1	2	
ContPriorExp	0	34	39	37	110
	1	11	4	9	24
Total		45	43	46	134

Table 43: Chi-square test Prior Exposure to the Video per Group

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3,560 ^a	2	,169
Likelihood Ratio	3,823	2	,148
Linear-by-Linear Association	,352	1	,553
N of Valid Cases	134		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7,70.

Appendix 9 - Manipulation Check

Table 44: Manipulation Check between Experimental Groups

	Experimental 1	Experimental 2
Incorrect	0 (0%)	1 (2%)
Correct	34 (79%)	37 (82%)
Does not remember what was disclosed	7 (16%)	3 (7%)
Does not remember there was a disclosure	2 (5%)	4 (9%)

Table 45: Chi-square test for Manipulation Check

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3,350 ^a	3	,341
Likelihood Ratio	3,793	3	,285
Linear-by-Linear Association	,072	1	,788
N of Valid Cases	88		

a. 5 cells (62,5%) have expected count less than 5. The minimum expected count is ,49.

Appendix 10 - Reliability Analysis

Table 46: Cronbach's Alpha Brand Attitude

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,883	,884	3

Inter-Item Correlation Matrix			
	BrandAtt1	BrandAtt2	BrandAtt3
BrandAtt1	1,000	,773	,705
BrandAtt2	,773	1,000	,674
BrandAtt3	,705	,674	1,000

Table 47: Cronbach's Alpha Understanding of Selling Intent

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,657	,675	3

Inter-Item Correlation Matrix			
	UndSellInt1	UndSellInt2	UndSellInt3
UndSellInt1	1,000	,593	,310
UndSellInt2	,593	1,000	,324
UndSellInt3	,310	,324	1,000

Table 48: Cronbach's Alpha Understanding of Persuasive Intent

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,788	,791	3

Inter-Item Correlation Matrix			
	UndPersInt1	UndPersInt2	UndPersInt3
UndPersInt1	1,000	,702	,492
UndPersInt2	,702	1,000	,478
UndPersInt3	,492	,478	1,000

Table 49: Cronbach's Alpha ST Brand Presence

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,583	,598	3

Inter-Item Correlation Matrix			
	STBranPres1	STBranPres2	STBranPres3
STBranPres1	1,000	,480	,313
STBranPres2	,480	1,000	,201
STBranPres3	,313	,201	1,000

Table 50: Cronbach's Alpha ST Sponsor Clarity

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,434	,533	3

Inter-Item Correlation Matrix			
	STSponClar1_True	STSponClar2	STSponClar3
STSponClar1_True	1,000	,213	,075
STSponClar2	,213	1,000	,538
STSponClar3	,075	,538	1,000

Table 51: Cronbach's Alpha ST Disclosure

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,658	,653	3

Inter-Item Correlation Matrix			
	STDisc1	STDisc2	STDisc3
STDisc1	1,000	,548	,402
STDisc2	,548	1,000	,206
STDisc3	,402	,206	1,000

Table 52: Cronbach's Alpha ST Lack of Deception

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,754	,753	3

Inter-Item Correlation Matrix			
	STLackDecp1	STLackDecp2	STLackDecp3
STLackDecp1	1,000	,574	,438
STLackDecp2	,574	1,000	,501
STLackDecp3	,438	,501	1,000

Appendix 11 - Tests for hypotheses

Table 53: Percentiles for Advertising Recognition

Statistics			
Advertising recognition. Did you see advertising while watching			
Control Group	N	Valid	44
		Missing	1
	Percentiles	25	1,00
		50	5,00
75		6,00	
Experimental group 1	N	Valid	43
		Missing	0
	Percentiles	25	4,00
		50	6,00
75		6,00	
Experimental group 2	N	Valid	45
		Missing	1
	Percentiles	25	4,00
		50	6,00
75		6,00	

Table 54: Mann-Whitney test for Advertising Recognition

Ranks				
	Group	N	Mean Rank	Sum of Ranks
Advertising recognition. Did you see advertising while watching this D4rk video?	Control Group	44	38,06	1674,50
	Experimental group 1	43	50,08	2153,50
	Total	87		

Test Statistics^a	
	Advertising recognition. Did you see advertising while watching this D4rk video?
Mann-Whitney U	684,500
Wilcoxon W	1674,500
Z	-2,342
Asymp. Sig. (2-tailed)	,019

a. Grouping Variable: Group

Table 55: Mann-Whitney test for Advertising Recognition

Ranks				
	Group	N	Mean Rank	Sum of Ranks
Advertising recognition. Did you see advertising while watching this D4rk video?	Control Group	44	37,28	1640,50
	Experimental group 2	45	52,54	2364,50
	Total	89		

Test Statistics^a

	Advertising recognition. Did you see advertising while watching this D4rk video?
Mann-Whitney U	650,500
Wilcoxon W	1640,500
Z	-2,965
Asymp. Sig. (2-tailed)	,003

a. Grouping Variable: Group

Table 56: Mann-Whitney test for Advertising Recognition

Ranks				
	Group_1_2	N	Mean Rank	Sum of Ranks
Advertising recognition. Did you see advertising while watching this D4rk video?	Control	44	52,84	2325,00
	Experimental 1+2	88	73,33	6453,00
	Total	132		

Test Statistics^a

	Advertising recognition. Did you see advertising while watching this D4rk video?
Mann-Whitney U	1335,000
Wilcoxon W	2325,000
Z	-3,119
Asymp. Sig. (2-tailed)	,002

a. Grouping Variable: Group_1_2

Table 57: Mann-Whitney test for Advertising Recognition

Ranks			
	Group	N	Mean Rank
Advertising recognition. Did you see advertising while watching this D4rk video?	Control Group	44	52,84
	Experimental group 1	43	71,17
	Experimental group 2	45	75,39
	Total	132	

Test Statistics^{a,b}

	Advertising recognition. Did you see advertising while watching this D4rk video?
Kruskal-Wallis H	10,036
df	2
Asymp. Sig.	,007

a. Kruskal Wallis Test

b. Grouping Variable: Group

Table 58: Percentiles for Understanding of Selling Intent

Statistics						
Group		UndSellInt1	UndSellInt2	UndSellInt3	UndSellInt_Sum	
0	N	Valid	45	45	44	44
		Missing	0	0	1	1
	Percentiles	25	4,00	4,00	2,00	10,0000
		50	5,00	5,00	3,00	12,0000
		75	5,50	6,00	4,00	15,0000
1	N	Valid	43	43	43	43
		Missing	0	0	0	0
	Percentiles	25	5,00	5,00	2,00	12,0000
		50	5,00	5,00	2,00	13,0000
		75	6,00	6,00	4,00	15,0000
2	N	Valid	46	46	45	45
		Missing	0	0	1	1
	Percentiles	25	4,00	4,75	2,00	12,0000
		50	5,00	5,00	4,00	14,0000
		75	6,00	6,00	4,00	16,0000

Table 59: Mann-Whitney test for Understanding of Selling Intent

Ranks				
	Group	N	Mean Rank	Sum of Ranks
UndSellInt_Sum	0	44	39,78	1750,50
	1	43	48,31	2077,50
	Total	87		

Test Statistics^a

	UndSellInt_Sum
Mann-Whitney U	760,500
Wilcoxon W	1750,500
Z	-1,584
Asymp. Sig. (2-tailed)	,113

a. Grouping Variable: Group

Table 60: Mann-Whitney test for Understanding of Selling Intent

Ranks

	Group	N	Mean Rank	Sum of Ranks
UndSellInt_Sum	0	44	38,63	1699,50
	2	45	51,23	2305,50
	Total	89		

Test Statistics^a

	UndSellInt_Sum
Mann-Whitney U	709,500
Wilcoxon W	1699,500
Z	-2,313
Asymp. Sig. (2-tailed)	,021

a. Grouping Variable: Group

Table 61: Mann-Whitney test for Understanding of Selling Intent

Ranks

	Group_1_2	N	Mean Rank	Sum of Ranks
UndSellInt_Sum	0	44	55,91	2460,00
	1	88	71,80	6318,00
	Total	132		

Test Statistics^a

	UndSellInt_Sum
Mann-Whitney U	1470,000
Wilcoxon W	2460,000
Z	-2,263
Asymp. Sig. (2-tailed)	,024

a. Grouping Variable: Group_1_2

Table 62: Mann-Whitney test for Understanding of Selling Intent

Ranks				
	Group	N	Mean Rank	Sum of Ranks
UndSellInt_Sum	1	43	41,70	1793,00
	2	45	47,18	2123,00
	Total	88		

Test Statistics^a

	UndSellInt_Sum
Mann-Whitney U	847,000
Wilcoxon W	1793,000
Z	-1,014
Asymp. Sig. (2-tailed)	,310

a. Grouping Variable: Group

Table 63: Percentiles for Understanding of Persuasive Intent

Statistics						
Group			UndPersInt1	UndPersInt2	UndPersInt3	UndPersInt_Sum
0	N	Valid	45	45	45	45
		Missing	0	0	0	0
	Percentiles	25	4,00	4,00	5,00	12,0000
		50	5,00	5,00	5,00	16,0000
		75	6,00	6,00	6,00	18,0000
1	N	Valid	43	43	43	43
		Missing	0	0	0	0
	Percentiles	25	5,00	5,00	5,00	14,0000
		50	6,00	5,00	6,00	16,0000
		75	6,00	6,00	6,00	18,0000
2	N	Valid	45	45	46	45
		Missing	1	1	0	1
	Percentiles	25	5,00	4,50	5,00	14,0000
		50	6,00	6,00	5,00	16,0000
		75	6,00	6,00	6,00	18,0000

Table 64: Mann-Whitney test for Understanding of Persuasive Intent

Ranks				
	Group	N	Mean Rank	Sum of Ranks
UndPersInt_Sum	0	45	41,86	1883,50
	1	43	47,27	2032,50
	Total	88		

Test Statistics^a

UndPersInt_Sum	
Mann-Whitney U	848,500
Wilcoxon W	1883,500
Z	-1,009
Asymp. Sig. (2-tailed)	,313

a. Grouping Variable: Group

Table 65: Mann-Whitney test for Understanding of Persuasive Intent

Ranks

	Group	N	Mean Rank	Sum of Ranks
UndPersInt_Sum	0	45	43,51	1958,00
	2	45	47,49	2137,00
	Total	90		

Test Statistics^a

UndPersInt_Sum	
Mann-Whitney U	923,000
Wilcoxon W	1958,000
Z	-,734
Asymp. Sig. (2-tailed)	,463

a. Grouping Variable: Group

Table 66: Mann-Whitney test for Understanding of Persuasive Intent

Ranks

	Group_1_2	N	Mean Rank	Sum of Ranks
UndPersInt_Sum	0	45	62,37	2806,50
	1	88	69,37	6104,50
	Total	133		

Test Statistics^a

UndPersInt_Sum	
Mann-Whitney U	1771,500
Wilcoxon W	2806,500
Z	-1,007
Asymp. Sig. (2-tailed)	,314

a. Grouping Variable: Group_1_2

Table 67: Mann-Whitney test for Understanding of Persuasive Intent

Ranks				
	Group	N	Mean Rank	Sum of Ranks
UndPersInt_Sum	1	43	45,62	1961,50
	2	45	43,43	1954,50
	Total	88		

Test Statistics^a

UndPersInt_Sum	
Mann-Whitney U	919,500
Wilcoxon W	1954,500
Z	-,407
Asymp. Sig. (2-tailed)	,684

a. Grouping Variable: Group

Table 68: Proportion of Brand Recall on Experimental Group 1

Correct identification of the brand * Group Crosstabulation

			Group			
			Control Group	Experimental group 1	Experimental group 2	Total
Correct identification of the brand	Did not recall the Brand	Count	19 ^a	7 ^b	5 ^b	31
		% within Group	42,2%	16,3%	10,9%	23,1%
	Recalled the Brand	Count	26 ^a	36 ^b	41 ^b	103
		% within Group	57,8%	83,7%	89,1%	76,9%
Total	Count	45	43	46	134	
	% within Group	100,0%	100,0%	100,0%	100,0%	

Each subscript letter denotes a subset of Group categories whose column proportions do not differ significantly from each other at the ,05 level.

Table 69: Chi-Square test for Brand Recall

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7,110 ^a	1	,008		
Continuity Correction ^b	5,918	1	,015		
Likelihood Ratio	7,329	1	,007		
Fisher's Exact Test				,010	,007
Linear-by-Linear Association	7,029	1	,008		
N of Valid Cases	88				

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 12,70.

b. Computed only for a 2x2 table

Table 70: Chi-Square test for Brand Recall

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	11,515 ^a	1	,001		
Continuity Correction ^b	9,957	1	,002		
Likelihood Ratio	12,083	1	,001		
Fisher's Exact Test				,001	,001
Linear-by-Linear Association	11,389	1	,001		
N of Valid Cases	91				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11,87.

b. Computed only for a 2x2 table

Table 71: Chi-Square test for Brand Recall

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	13,882 ^a	1	,000		
Continuity Correction ^b	12,313	1	,000		
Likelihood Ratio	13,276	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	13,778	1	,000		
N of Valid Cases	134				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10,41.

b. Computed only for a 2x2 table

Table 72: Chi-Square test for Brand Recall

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	,558 ^a	1	,455		
Continuity Correction ^b	,190	1	,663		
Likelihood Ratio	,559	1	,455		
Fisher's Exact Test				,542	,331
Linear-by-Linear Association	,551	1	,458		
N of Valid Cases	89				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5,80.

b. Computed only for a 2x2 table

Table 73: Percentiles for Brand Attitude

Statistics						
Group			BrandAtt1	BrandAtt2	BrandAtt3	BrandAtt_Sum
0	N	Valid	45	45	45	45
		Missing	0	0	0	0
	Percentiles	25	3,00	3,50	4,00	11,0000
		50	4,00	4,00	4,00	13,0000
75		5,00	5,00	5,00	14,0000	
1	N	Valid	43	43	43	43
		Missing	0	0	0	0
	Percentiles	25	4,00	4,00	4,00	12,0000
		50	4,00	4,00	5,00	13,0000
75		5,00	5,00	5,00	15,0000	
2	N	Valid	45	44	44	44
		Missing	1	2	2	2
	Percentiles	25	4,00	4,00	4,00	12,0000
		50	4,00	4,00	4,00	12,5000
75		5,00	4,00	5,00	14,0000	

Table 74: Mann-Whitney test for Brand Attitude

Ranks				
	Group	N	Mean Rank	Sum of Ranks
BrandAtt_Sum	0	45	40,76	1834,00
	1	43	48,42	2082,00
	Total	88		

Test Statistics^a

	BrandAtt_Sum
Mann-Whitney U	799,000
Wilcoxon W	1834,000
Z	-1,428
Asymp. Sig. (2-tailed)	,153

a. Grouping Variable: Group

Table 75: Mann-Whitney test for Brand Attitude

Ranks				
	Group	N	Mean Rank	Sum of Ranks
BrandAtt_Sum	0	45	44,29	1993,00
	2	44	45,73	2012,00
	Total	89		

Test Statistics^a

	BrandAtt_Sum
Mann-Whitney U	958,000
Wilcoxon W	1993,000
Z	-,266
Asymp. Sig. (2-tailed)	,790

a. Grouping Variable: Group

Table 76: Mann-Whitney test for Brand Attitude

Ranks

	Group_1_2	N	Mean Rank	Sum of Ranks
BrandAtt_Sum	0	45	62,04	2792,00
	1	87	68,80	5986,00
	Total	132		

Test Statistics^a

	BrandAtt_Sum
Mann-Whitney U	1757,000
Wilcoxon W	2792,000
Z	-,977
Asymp. Sig. (2-tailed)	,328

a. Grouping Variable: Group_1_2

Table 77: Mann-Whitney test for Brand Attitude

Ranks

	Group	N	Mean Rank	Sum of Ranks
BrandAtt_Sum	1	43	47,56	2045,00
	2	44	40,52	1783,00
	Total	87		

Test Statistics^a

	BrandAtt_Sum
Mann-Whitney U	793,000
Wilcoxon W	1783,000
Z	-1,324
Asymp. Sig. (2-tailed)	,186

a. Grouping Variable: Group

Table 78: Percentiles for Purchase Request

Statistics

Will you ask your parents/guardian to buy you Note products?

Control Group	N	Valid	45
		Missing	0
Percentiles	25	2,00	
	50	3,00	
	75	4,00	
Experimental group 1	N	Valid	43
		Missing	0
Percentiles	25	3,00	
	50	3,00	
	75	4,00	
Experimental group 2	N	Valid	46
		Missing	0
Percentiles	25	2,00	
	50	3,00	
	75	4,00	

Table 79: Mann-Whitney test for Purchase Request

Ranks

	Group	N	Mean Rank	Sum of Ranks
Will you ask your parents/guardian to buy you Note products?	Control Group	45	39,39	1772,50
	Experimental group 1	43	49,85	2143,50
	Total	88		

Test Statistics^a

Will you ask your parents/guardian to buy you Note products?

Mann-Whitney U	737,500
Wilcoxon W	1772,500
Z	-2,028
Asymp. Sig. (2-tailed)	,043

a. Grouping Variable: Group

Table 80: Mann-Whitney test for Purchase Request

Ranks

	Group	N	Mean Rank	Sum of Ranks
Will you ask your parents/guardian to buy you Note products?	Control Group	45	45,69	2056,00
	Experimental group 2	46	46,30	2130,00
	Total	91		

Test Statistics^a

Will you ask your parents/guardian to buy you Note products?	
Mann-Whitney U	1021,000
Wilcoxon W	2056,000
Z	-,117
Asymp. Sig. (2-tailed)	,907

a. Grouping Variable: Group

Table 81: Mann-Whitney test for Purchase Request

Ranks

	Group_1_2	N	Mean Rank	Sum of Ranks
	Will you ask your parents/guardian to buy you Note products?	Control	45	62,08
Experimental 1+2		89	70,24	6251,50
Total		134		

Test Statistics^a

Will you ask your parents/guardian to buy you Note products?	
Mann-Whitney U	1758,500
Wilcoxon W	2793,500
Z	-1,208
Asymp. Sig. (2-tailed)	,227

a. Grouping Variable: Group_1_2

Table 82: Mann-Whitney test for Purchase Request

Ranks

	Group	N	Mean Rank	Sum of Ranks
	Will you ask your parents/guardian to buy you Note products?	Experimental group 1	43	49,66
Experimental group 2		46	40,64	1869,50
Total		89		

Test Statistics^a

Will you ask your parents/guardian to buy you Note products?	
Mann-Whitney U	788,500
Wilcoxon W	1869,500
Z	-1,728
Asymp. Sig. (2-tailed)	,084

a. Grouping Variable: Group

Appendix 12 - Mediation Analysis for H4 on PROCESS Version 3.5.3

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 3.5.3

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

Model : 4
Y : PurcRequ
X : Group_Ex
M1 : UndPersI
M2 : True_ST_

Sample
Size: 73

OUTCOME VARIABLE:
UndPersI

Model Summary						
	R	R-sq	MSE	F	df1	df2
p	,0168	,0003	5,1543	,0200	1,0000	71,0000
	,8881					

Model						
	coeff	se	t	p	LLCI	
ULCI						
constant	15,8529	,8438	18,7874	,0000	14,1704	
	17,5353					
Group_Ex	-,0751	,5315	-,1413	,8881	-1,1348	
	,9847					

Standardized coefficients
coeff
Group_Ex -,0333

OUTCOME VARIABLE:
True_ST_

Model Summary						
	R	R-sq	MSE	F	df1	df2
p	,1150	,0132	97,1577	,9514	1,0000	71,0000
	,3327					

Model						
	coeff	se	t	p	LLCI	
ULCI						

constant	61,4715	3,6635	16,7795	,0000	54,1666
	68,7763				
Group_Ex	2,2508	2,3075	,9754	,3327	-2,3504
	6,8519				

Standardized coefficients

	coeff
Group_Ex	,2284

OUTCOME VARIABLE:

PurcRequ

Model Summary

	R	R-sq	MSE	F	df1	df2
P	,2265	,0513	1,2446	1,2436	3,0000	69,0000
	,3007					

Model

	coeff	se	t	p	LLCI
ULCI					
constant	2,6280	1,1819	2,2236	,0295	,2702
	4,9858				
Group_Ex	-,3925	,2632	-1,4910	,1405	-,9176
	,1326				
UndPersI	,0670	,0603	1,1103	,2707	-,0534
	,1874				
True_ST_	,0028	,0139	,2027	,8400	-,0249
	,0305				

Standardized coefficients

	coeff
Group_Ex	-,3500
UndPersI	,1347
True_ST_	,0248

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

PurcRequ

Model Summary

	R	R-sq	MSE	F	df1	df2
P	,1756	,0308	1,2356	2,2592	1,0000	71,0000
	,1373					

Model

	coeff	se	t	p	LLCI
ULCI					
constant	3,8634	,4131	9,3512	,0000	3,0396
	4,6871				
Group_Ex	-,3911	,2602	-1,5031	,1373	-,9100
	,1277				

Standardized coefficients

coeff

Group_Ex - ,3488

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y

Total effect of X on Y

	Effect	se	t	p	LLCI	ULCI
c_ps	- ,3911	,2602	-1,5031	,1373	- ,9100	,1277
	- ,3488					

Direct effect of X on Y

	Effect	se	t	p	LLCI	ULCI
c'_ps	- ,3925	,2632	-1,4910	,1405	- ,9176	,1326
	- ,3500					

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,0013	,0711	- ,1733	,1244
UndPersI	- ,0050	,0513	- ,1527	,0671
True_ST_	,0063	,0488	- ,0990	,1141
(C1)	- ,0114	,0704	- ,1726	,1209

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	,0012	,0631	- ,1509	,1109
UndPersI	- ,0045	,0450	- ,1342	,0594
True_ST_	,0057	,0439	- ,0877	,1016
(C1)	- ,0101	,0626	- ,1503	,1061

Specific indirect effect contrast definition(s):

(C1) UndPersI minus True_ST_

***** ANALYSIS NOTES AND ERRORS

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

NOTE: Standardized coefficients for dichotomous or multicategorical X are in

partially standardized form.

WARNING: Variables names longer than eight characters can produce incorrect output

when some variables in the data file have the same first eight characters. Shorter

variable names are recommended. By using this output, you are accepting all risk

and consequences of interpreting or reporting results that may be incorrect.

Appendix 13 - Contents Watched by Children on YouTube

Table 83: Frequency of Music/Dance Videos

MusicoDancevideos					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	65	48,5	100,0	100,0
Missing	System	69	51,5		
Total		134	100,0		

Table 86: Frequency of Makeup/Fashion Videos

MakeupFashionvideos					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	23	17,2	100,0	100,0
Missing	System	111	82,8		
Total		134	100,0		

Table 89: Frequency of Gaming Videos

Gamingvideos					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	79	59,0	100,0	100,0
Missing	System	55	41,0		
Total		134	100,0		

Table 92: Frequency of Review Videos

Reviewvideos					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	23	17,2	100,0	100,0
Missing	System	111	82,8		
Total		134	100,0		

Table 98: Frequency of Unboxing Videos

Unboxingvideos					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	34	25,4	100,0	100,0
Missing	System	100	74,6		
Total		134	100,0		

Table 95: Frequency of Daily Vlogs

Dailyvlogs					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	47	35,1	100,0	100,0
Missing	System	87	64,9		
Total		134	100,0		

Table 89: Frequency of Other Content

Other					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	29	21,6	100,0	100,0
Missing	System	105	78,4		
Total		134	100,0		

Table 1010: Types of Other Content

Other_content2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		111	82,8	82,8	82,8
	Comedy	6	4,5	4,5	87,3
	Learning	9	6,7	6,7	94,0
	Other Other	1	,7	,7	94,8
	Sports	6	4,5	4,5	99,3
	Sports & Comedy	1	,7	,7	100,0
Total		134	100,0	100,0	

Appendix 14 – YouTube Time

Table 103: Kruskal-Wallis Test for YouTube Time per Age

Test Statistics ^{a,b}		
	YTSchoolDay	YTDayOff
Kruskal-Wallis H	2,046	2,436
df	2	2
Asymp. Sig.	,359	,296

a. Kruskal Wallis Test

b. Grouping Variable: Age

Table 104: Means for YouTube Time per School Day and YouTube Time per Day Off

Statistics			
	YTSchoolDay	YTDayOff	
N	Valid	132	131
	Missing	2	3
Mean	,99	2,02	
Std. Deviation	,715	,804	

Table 105: Medians for YouTube time per School Day and per Day Off per Age

Statistics				
Age		YTSchoolDay	YTDayOff	
10	N	Valid	36	35
		Missing	1	2
	Percentiles	25	,00	2,00
		50	1,00	2,00
		75	1,00	3,00
11	N	Valid	63	64
		Missing	1	0
	Percentiles	25	1,00	1,00
		50	1,00	2,00
		75	1,00	3,00
12	N	Valid	33	32
		Missing	0	1
	Percentiles	25	1,00	2,00
		50	1,00	2,00
		75	2,00	3,00

Test Statistics ^{a,b}		
	YTSchoolDay	YTDayOff
Kruskal-Wallis H	2,046	2,436
df	2	2
Asymp. Sig.	,359	,296

a. Kruskal Wallis Test

b. Grouping Variable: Age