

Millersville University

A Study of Computer-Generated Imagery (CGI) in Social Media Influencer Marketing

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By

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Abstract

The purpose of this paper is to gain a better understanding of people's awareness of CGI influencers and how they respond to and engage with CGI influencer marketing compared to traditional human influencer marketing. Through this research, I am attempting to answer the following questions: How aware are people ages 18 to 24 of the presence of CGI influencers on social media? How do they respond to marketing content shared by CGI influencers? And how do these responses differ from their responses to human influencer marketing? In order to answer the proposed research questions, the researcher conducted empirical research. The researcher ran an online survey from November 8th, 2020 to November 21st, 2020. I received 141 responses from both male and female participants between the ages 18 and 55. The data showed that 18 to 24 years olds are not very familiar with CGI influencers, and very few of those that are aware of them follow them on social media. They responded to promotional content by CGI influencers similarly to that of human influencers but showed an overall preference for human influencer-promoted ads.

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Introduction

Marketing can be defined as the activities involved in communicating and delivering valuable offerings to consumers (American Marketing Association, 2017). The concept of marketing dates back to the Industrial Revolution, which took place from the late 18th century into the 19th century (Hardy, 2016). Since then, the ways in which companies market their products has drastically changed. During the late 1990s, companies began using the internet as a way to share information about themselves and their products with the public (Hardy, 2016). Now, about 20 years later, most if not all companies are using the internet and digital marketing strategies to communicate messages to consumers. In recent years, brands have begun utilizing social media sites as a way to promote themselves. These sites have become effective tools for quickly sharing marketing content with a large number of people. Social media marketing is unlike traditional forms of marketing in the sense that the focus is shifted from selling a product to forming and maintaining relationships with consumers. One way companies connect with consumers on social media is through influencer marketing.

Influencer marketing is a form of marketing in which brands utilize influential online personalities to increase brand awareness and encourage engagement from a niche audience of social media users (Kádeková and Holienčinová, 2018). In order to fully understand influencer marketing and the inner workings of an influencer marketing campaign, one must have a solid understanding of what an influencer is. Influencers are individuals who possess the power to impact the lives of people who they have formed a relationship with through their social media platforms (Kádeková and Holienčinová, 2018). These relationships form as a result of influencers sharing details about their personal lives and regularly posting their life experiences on social media, which allows their followers to get to know them on a personal level.

Influencers are perceived as experts in whichever subject area they regularly share content about such as fitness, fashion, skincare, and so on. As a result, their followers are typically people who want to learn more about that subject area and trust that the influencer will provide them with valuable information (Kádeková and Holienčinová 2018). Influencers can have a fairly small following or a relatively large one, though research shows that smaller-scale influencers known as micro-influencers tend to be more effective at influencing their niche audiences because of their perceived connection between an influencer's lower social status and promoting more affordable products (Djafarova and Rushworth, 2016).

There are a few reasons why social media users are willing to listen to and interact with promotional content posted by influencers. One of those reasons is that their content is less commercial in nature than traditional social media advertisements posted by brands themselves. An influencer's promotional content feels more genuine because they are not a spokesperson for the organization, but a third party that social media users know and can relate to (Lou, Tan, and Chen 2019). Influencer marketing also works because influencers post promotions that look and feel authentic. Social media users are constantly exposed to promotional content from brands in their social media feeds. For this reason, they can easily spot advertisements and most often choose to ignore them (Lou et al., 2019). Influencers create advertisements that are relatable, genuine, and fit with their aesthetic. For those reasons, their promotional content has a greater chance of being successful than promotional content posted by a brand. When a brand shares an advertisement, people assume that it is being posted with the intention of generating sales. When an influencer posts an advertisement, however, their followers feel less like they're being presented a sales pitch and more like they are being recommended a product or service by a friend (Lou et al., 2019). In addition, an influencer's followers often trust them to actually use

the product they are recommending rather than promoting it solely for financial compensation. Since people view influencers as experts in a particular subject area, they also trust them to promote high quality products (Kádeková and Holienčinová 2018).

According to an article shared by the American Marketing Association (2019), about 75% of marketers are utilizing influencers in their marketing campaigns to increase word of mouth advertising on social media platforms. 65% of multinational brands currently using influencers to market their brand and products expect to increase their spending's on influencer marketing in the near future (Hughes et al., 2019). There are several reasons why some brands choose to work with influencers to promote themselves and their products. Brands who want to be endorsed by a spokesperson outside of the organization find that influencers are less expensive to work with than celebrities. This is primarily because influencers have a smaller social media following than most celebrities since they are less well known (Childers et al., 2018). In a study conducted by Elmira Djafarova and Chloe Rushworth of Northumbria University in the United Kingdom (2016), they concluded that people are more likely to listen to and respect the opinions of celebrities over influencers when it comes to promoting products. People perceive the products that celebrities promote on social media to be out of their price range. Since influencers are less famous than celebrities, people expect them to promote more affordable products (Djafarova and Rushworth, 2016).

Computer-generated imagery (CGI) influencers are being created by companies using advanced technology to look like and act like their human counterparts on social media sites (Kádeková and Holienčinová 2018). CGI influencers are intriguing to social media users for numerous reasons. Firstly, it can sometimes be difficult to differentiate a CGI influencer from a real one. Many popular CGI influencers look extremely lifelike (Hsu, 2019). They also act like

human beings on social media which makes it even more challenging to differentiate them from human influencers. The most popular CGI influencer to date is known as Lil Miquela, or simply “Miquela”. Miquela was created by the Los Angeles-based transmedia studio Brud. At first, the company hid the fact that Miquela was not a human, which caused a lot of controversy and questions from social media users. This caused her popularity to skyrocket. Miquela has released songs and shot a promotional video for Calvin Klein with the human model Bella Hadid (Hsu, 2019). Her Instagram account shows pictures and videos of her eating snacks and crying over a breakup – things that would make someone believe she is a real person. Eventually, Brud did announce the fact that Miquela is a CGI influencer and not a human being.

Using CGI influencers for influencer marketing presents brands with benefits and drawbacks. One benefit of CGI influencers is that they do not need to receive financial compensation for their marketing efforts whereas human influencers do. In fact, CGI influencers do not need to eat, sleep, take breaks, or partake in other activities that would prevent them from creating and posting content (Appel et al., 2019). They are available to their creators whenever they are needed. CGI influencers are also appealing to brands because they have complete control over what they look like, the content they post, their personality, and so on. Brands utilizing traditional human influencers have less control over the content they post and how they act. This gives brands the added dilemma of having to appropriately handle any scandalous behavior in which human influencers involve themselves. If human influencers do something that tarnishes their reputation, any brands associated with those influencers risk hurting their reputation for being associated with them. However, even CGI influencers can become involved in controversies if their creators are not careful. For example, Miquela was involved in a controversy when she starred in a Calvin Klein video advertisement alongside human model

Bella Hadid. In the video, the two girls are posing together in Calvin Klein clothing and end up kissing each other. This resulted in major backlash and criticism from the public. People were disappointed that the company used a CGI influencer and a heterosexual woman for the advertisement rather than hiring two real lesbian women, claiming that it was offensive. Since Miquela is not real, viewers were also claiming that it was unrealistic. Calvin Klein has since apologized for the video (Hsu, 2019).

CGI influencers also lack the authenticity of their human counterparts. Influencers authentic personas are one of the main reasons that influencer marketing is successful. One might wonder if CGI influencers can be successful without that same authenticity. Questions have been raised regarding the ability of CGI influencers to genuinely endorse a product they cannot actually use (Kádeková and Holienčinová, 2018). It is also important to note that CGI influencers are currently less regulated by the Federal Trade Commission (FTC) than human influencers are (Hsu, 2019). According to the FTC, human influencers are required to disclose that they are being paid to endorse a particular brand. This disclosure must be clearly displayed along with the endorsement message and must be easily understandable by the general public. Human influencers are not permitted to advertise a product they have not tried or do not like (Federal Trade Commission, 2019). In comparison, there are no regulations in place for CGI influencers, so companies using them are not even required to disclose the fact that the influencer is not an actual person. The lack of laws for creators of CGI influencers to abide by raises questions about the morality of CGI influencer marketing (Kádeková and Holienčinová, 2018). However, as CGI influencers become more prominent on social media sites, the FTC or Congress will likely create guidelines for the promotional content they share.

The primary purpose of this study is to gain a better understanding of people's awareness of and feelings towards CGI influencer marketing versus human influencer marketing, particularly people between the ages of 18 and 24. To do this, the researcher conducted a survey with 141 participants, primarily consisting of Millersville University students. The questions the researcher hoped to answer through conducting this research are as follows: How aware are social media users of the presence of CGI influencers on social media? How do they respond to marketing content shared by CGI influencers? And how do these responses differ from their responses to human influencer marketing?

Extant Studies on Influencer Marketing

Research has shown that influencer marketing is an effective form of social media marketing. A study was conducted by a trio of researchers in Singapore to compare the levels of engagement and consumer sentiment for influencers advertisements for apparel brands with advertisements posted by the brands themselves on Instagram. They wanted to see the effects of these ads on consumer engagement and consumer sentiment, as well as the topics of the comments they left on the advertisements. Data was collected from 41 apparel brands as well as advertisements from numerous influencers for each brand posted anytime from March 1, 2017 to May 31, 2017. The researchers recorded the posting date, number of likes, number of comments, and consumer sentiment in the comments for each of the posts. They also looked for sponsorship disclosures for influencer-promoted ads as well as the number of followers each influencer had.

The researchers built sentiment analysis models and adopted a topic modeling approach to answer their research questions. They concluded that influencer-promoted advertisements were engaged with more than identical or similar advertisements posted by the actual brands.

The results also showed that social media users leave a greater percentage of negative comments and a lower percentage of positive comments on advertisements posted by brands compared to ads shared by influencers. Their research also showed that posts from influencers that included unambiguous disclosures resulted in their followers perceiving them to be more honest and trustworthy. Advertisements posted by brands increased consumers' interest in the advertised products, but overall did not receive as many likes or comments as influencer-promoted ads did. According to the research, this is mainly due to the fact that brand-promoted advertisements look more like traditional advertisements, so consumers will often ignore them. (Lou et al., 2019).

CGI Influencer Marketing

Influencer marketing has been the subject of various research projects and has proven to be successful for a number of brands. CGI influencer marketing, on the other hand, is less researched since it is a more recent trend. The most recent publicly-available research about CGI influencers was conducted in 2018 by Fullscreen, an entertainment company. Their study spanned from September 14th, 2018 to October 26th, 2018. Fullscreen collected data from 534 participants ages 13-34. They did not explain how this data was collected, which makes the results of the study unreliable. For this reason, it is highly important that more academic research is conducted on CGI influencer marketing. This makes the research conducted for this thesis even more important and necessary. Through this research, marketing professionals can gain a better understanding of how people feel about CGI influencer marketing. This study may also encourage additional, more extensive research to be conducted on the subject. Below is data from the Fullscreen CGI influencer marketing study.

Participants in the study were asked about their general awareness of CGI influencers. Forty-one percent said they had never heard of CGI influencers before, 36% said they have heard

of CGI influencers but do not follow them on social media, and 22% said they followed CGI influencers on social media sites. The 22% of participants who follow CGI influencers were asked why they followed them. The top five reasons they gave for following CGI influencers were because they are curious about their story (38%), they are entertaining (34%), they want to know who their creators are (32%), they give helpful advice (32%), and they shared passion points (31%).

Fullscreen's study also had participants give keywords which they felt best described both CGI influencers and human influencers. It is important to note that they did not specify if all participants received this question or if just the ones who follow CGI influencers did. The top word used to describe both virtual and traditional influencers was "entertaining". Forty-four percent said traditional influencers were entertaining while 28% said CGI influencers were entertaining. The second word selected most by survey participants to describe traditional influencers was "authentic" (41%) whereas for CGI influencers, it was "high-quality" (25%). "Authentic" was the third most selected word to describe CGI influencers with 23% of participants choosing it. For traditional influencers, the third word chosen most by participants was "high-quality". CGI influencers may have ranked higher for quality than traditional influencers because brands are in control of what CGI influencers post.

The typical brand likely has more money allocated to creating social media content than the typical human influencer, so they are more likely able to put more funds towards creating high-quality content. They also may have one or more employees who specialize in creating and sharing content for the CGI influencer. It is unsurprising that traditional influencers were described as authentic by more participants than CGI influencers were, considering they are real people and may be more relatable to the typical social media user than a fake influencer.

Traditional influencers who promote brands are also more likely to be perceived as genuine because they have the ability to use the product/service they are promoting and give an honest opinion based on their own emotions, whereas a CGI influencer may not be able to do this (Fullscreen, 2019).

A section of the research was labeled “Actions taken by followers of CGI influencers”. This showed what percentage of participants who followed CGI influencers made a purchase, attended an event, followed a brand, and researched a brand or product. Fullscreen does not specify how these questions were asked or if the actions taken were a result of seeing CGI influencers marketing content. According to the study, 55% of participants who followed CGI influencers made a purchase, 55% attended an event, 53% followed a brand, and 52% researched a brand or product. The study also noted that 54% of participants wanted to know who was behind the facade of a CGI influencer, and 42% would have liked to know if a brand was behind a CGI influencer. From this research, it would seem that CGI influencer marketing has the potential to be an effective form of influencer marketing. Brands using CGI influencers for marketing must be transparent with their audience and create entertaining content. More research must be done to support this data and help marketing professionals better understand the aspects of CGI influencer marketing (Fullscreen, 2019).

Purpose of the Study

The purpose of this study is to learn how people, specifically people between the ages of 18 to 24, feel about CGI influencers and human influencers in late 2020. CGI technology is new and the number of CGI influencers on social media is minimal. The researcher predicts that in the coming years, CGI technology will become more prominent, more easily accessible, and

more affordable. As a result, the presence of CGI influencers on social media is likely to increase. This study is intended to act as a baseline for further research on the subject of CGI influencer marketing.

Research Methodology

The researcher conducted an online survey using Qualtrics to collect data for this study. The researcher developed questions for the survey by analyzing preexisting surveys on influencer marketing. The questions were formulated to provide answers to the aforementioned research questions. Due to the nature of the questions, many of them had participants use a Likert scale to rank their attitudes. The researcher used email to recruit respondents. She contacted Millersville University professors and asked if they could email a link to the survey to their students. Four professors did this, and one of the professors offered his students extra credit for participating. The researcher also contacted the Dean of The Lombardo College of Business at Millersville who provided her with three \$25 Amazon gift cards to offer to business students as an incentive to take the survey. The Administrative Assistant of The Lombardo College of Business sent my survey to all business majors at the University via email. The survey was conducted from November 8th, 2020 to November 21st, 2020. 167 people started the survey. Three participants consented to the survey and confirmed that they were above the age of 18 but stopped the survey before answering the first question. One participant did not consent and was therefore unable to continue taking the survey. One participant said they were not 18 years old or older and was also unable to continue with the survey. Fifteen participants stopped after the first question and 6 participants stopped after the third question. These 26 participants responses are not being reported on as they are incomplete responses. 141 respondents fully completed the

survey, meaning the survey has a completion rate of 84%. The researcher only reported on the data collected from the 141 participants who answered every question in the survey.

The Sample

Out of the 141 participants who fully completed the survey, 67% were females, 31% were males, and 2% classified as “other”. If this survey were to be replicated, the researcher(s) should attempt to obtain a more equal percentage of male and female respondents to get more accurate information about the male population’s opinions. Since the majority of our survey respondents were students who attended Millersville University, the researcher anticipated that a large number of respondents would be between the ages of 18 and 24. Eighty-eight percent of participants were between the ages of 18 and 24, and the other 12% were between the ages of 25 and 55. Due to the fact that the researcher focused on obtaining data from college students, there was a question in the survey about which college the students were in. Fifty-four percent of participants answered that they were students in the Lombardo College of Business. This was anticipated since the survey was sent mostly to business students. Eighteen percent of students said they were in the College of Science and Technology, 14% were in the College of Arts, Humanities, and Social Sciences, 10% answered “N/A”, and 4% were in the College of Education and Human Services. The majority of respondents (41%) classified themselves as students. Thirty-three percent said they were employed part time and 14% were employed full time. The remaining 12% classified as unemployed.

Results

The research performed for this study was conducted to gain a better understanding of the opinions people ages 18 to 24 have about CGI influencer marketing compared to human influencer marketing as well as their awareness of both types of influencers. The researcher hypothesized that participants would be more aware of human influencers than CGI influencers. She also predicted that respondents would prefer human influencer-promoted advertisements as opposed to CGI influencer-promoted advertisements. This is because CGI influencers are far less common on social media sites than human influencers, so people are more familiar with and thus more comfortable engaging with content from the latter.

The first question in the survey asked respondents to select a statement that best described their awareness of human influencers. Fifty-five percent of participants said that they followed human influencers on social media, 36% said they had heard of them but did not follow them, and 9% said they had never heard of human influencers (see Figure 1).

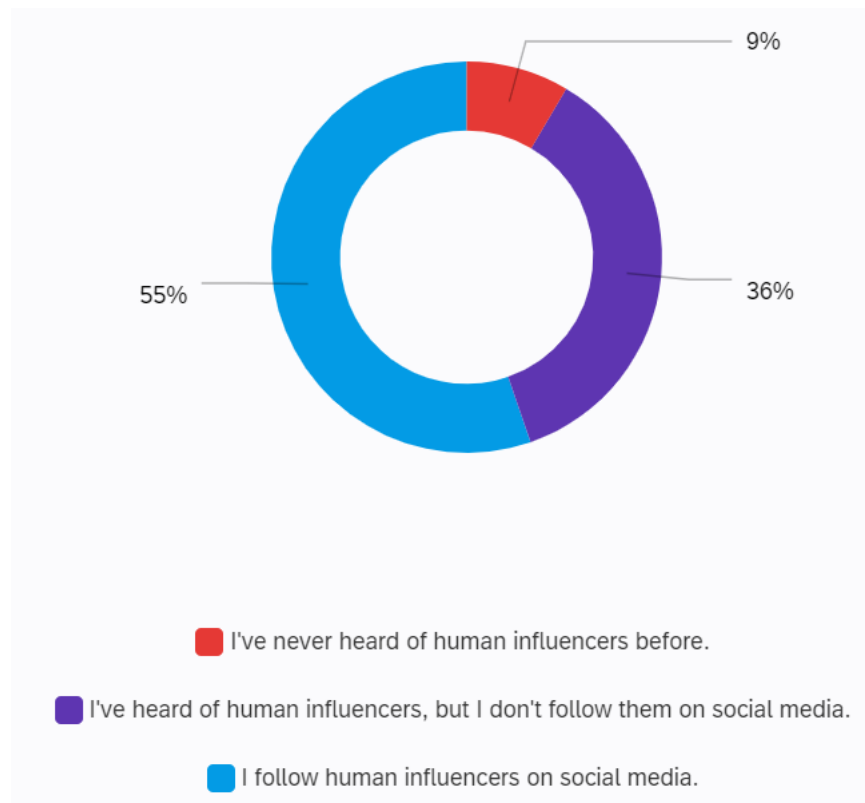


Figure 1: Awareness of Human Influencers

Respondents were asked the same question about CGI influencers. The researcher found that about half (52%) of participants had never heard of CGI influencers before. Forty-five percent of participants said they had heard of CGI influencers but did not follow them on social media, and only four participants (3%) said that they followed CGI influencers on social media (see Figure 2).

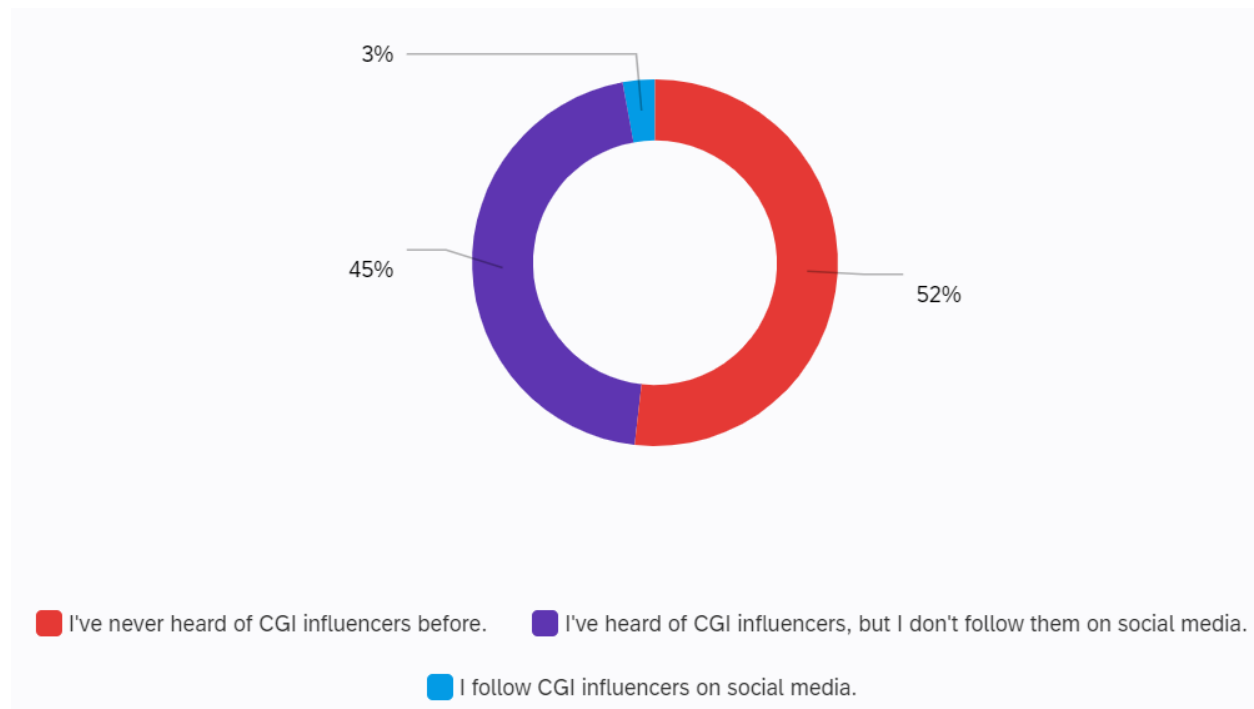


Figure 2: Awareness of CGI Influencers

Participants were shown an advertisement from Instagram featuring a CGI influencer for the fast food company KFC and were asked to answer questions based on the ad. They were told to observe the ad and say about how long it took them to recognize that the influencer was CGI and not human. Thirty five percent of respondents said they did not realize the influencer was CGI. Thirty percent said they noticed in 5 seconds or less, 22% noticed in about 6 to 20 seconds, and 10% noticed in about 21 to 40 seconds. It took 2% of participants longer than one minute to realize the influencer was not human (see Figure 3).

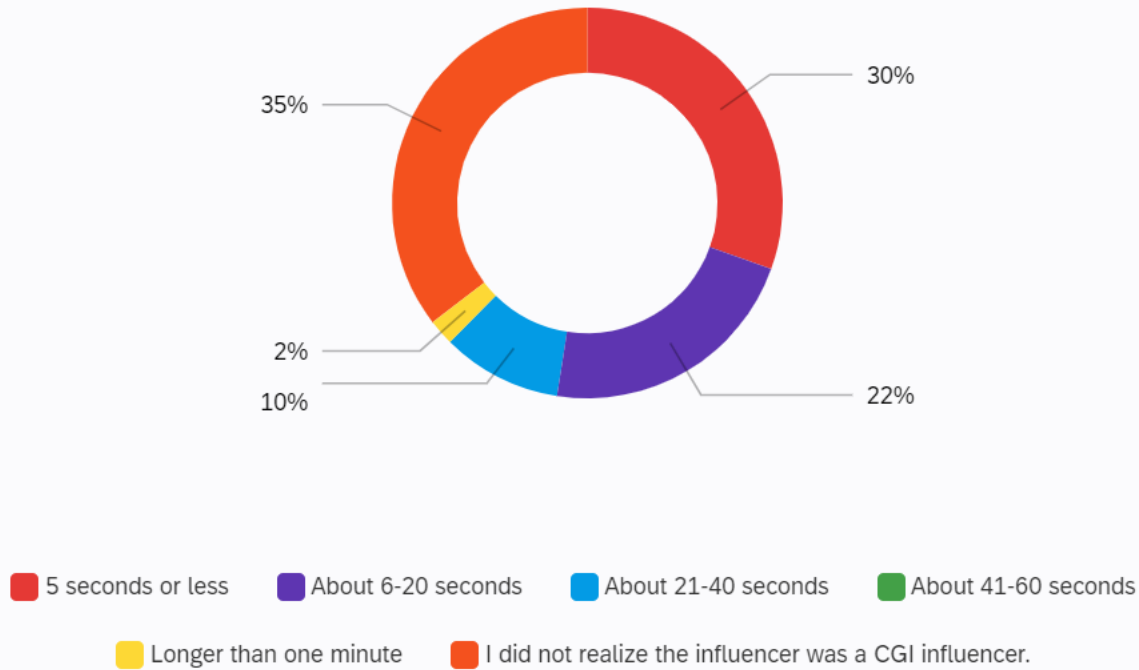


Figure 3: Length of time it took participants to recognize a CGI influencer

The researcher then asked participants how likely they would be to purchase the product being advertised. Only 10% of respondents said they were either likely (9%) or very likely (1%) to purchase the product based on the ad. Thirty four percent said neither likely nor unlikely, 33% said not likely, and 23% said not likely at all (see Figure 4). When asked how likely they would be to recommend the product, only 6% said they were either likely (5%) or very likely (1%) to recommend it. Twenty six percent said neither likely nor unlikely, 42% said not likely, and 26% said not likely at all (see Figure 5).

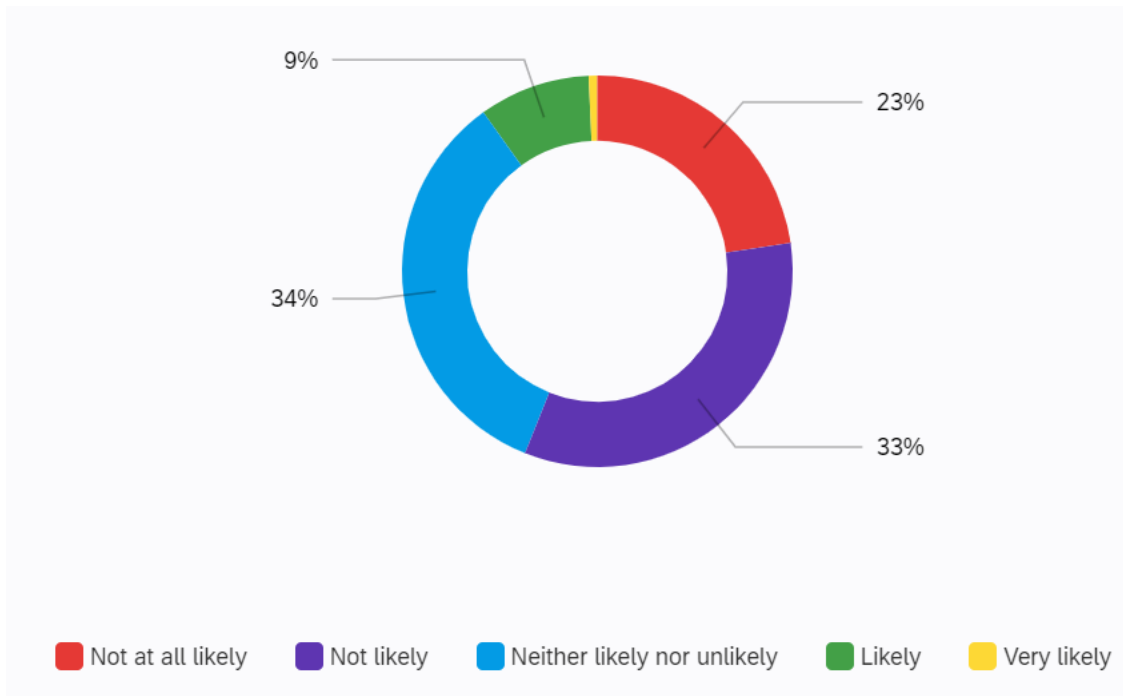


Figure 4: Likelihood of purchasing a product based on an ad from a CGI influencer

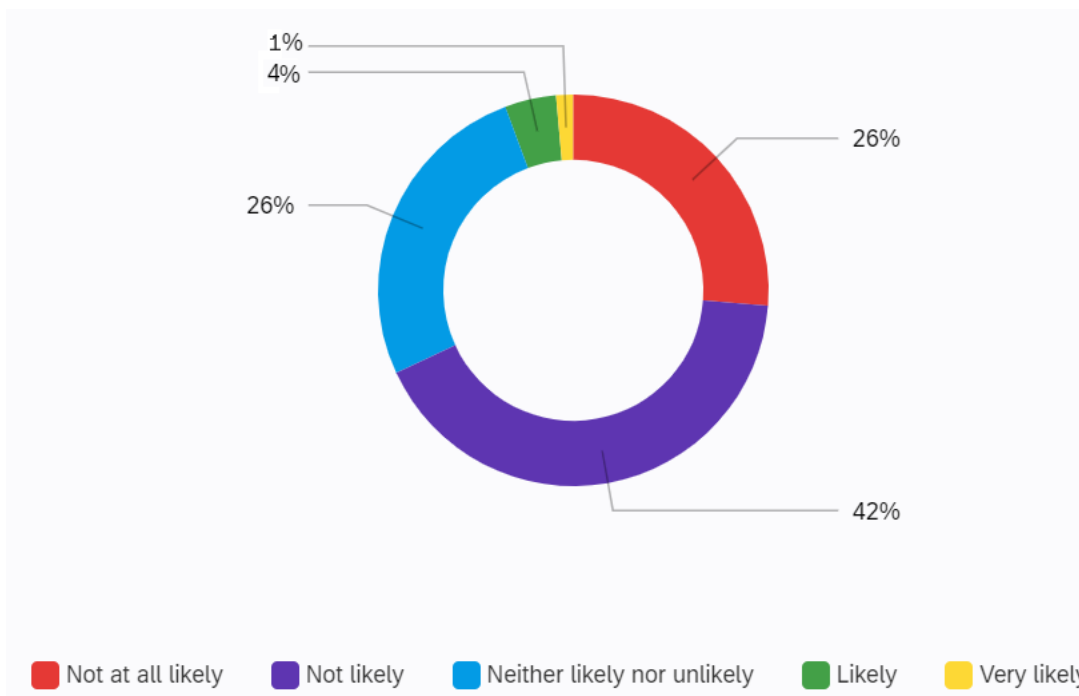


Figure 5: Likelihood of recommending a product based on an ad from a CGI influencer

Participants were shown two similar video advertisements for Samsung’s “Do What You Can’t” campaign and were asked to answer a series of questions based on the videos. One of the advertisements featured Ninja, a human influencer, and the other featured Miquela, the most popular CGI influencer to date. Participants were asked to rank how likely they would be to purchase the product based on the ad, recommend the product based on the ad, and engage with the ad on social media. For the Ninja advertisement, 72% of participants said they were either not likely (38%) or not likely at all (34%) to purchase the product based on the ad. Similarly, when asked how likely they were to recommend the product based on the ad, 38% and 33% of participants were not likely or not likely at all to recommend it, respectively. In regard to whether or not participants would engage with the ad, 30% said not likely and 47% said not likely at all (see Figure 6).

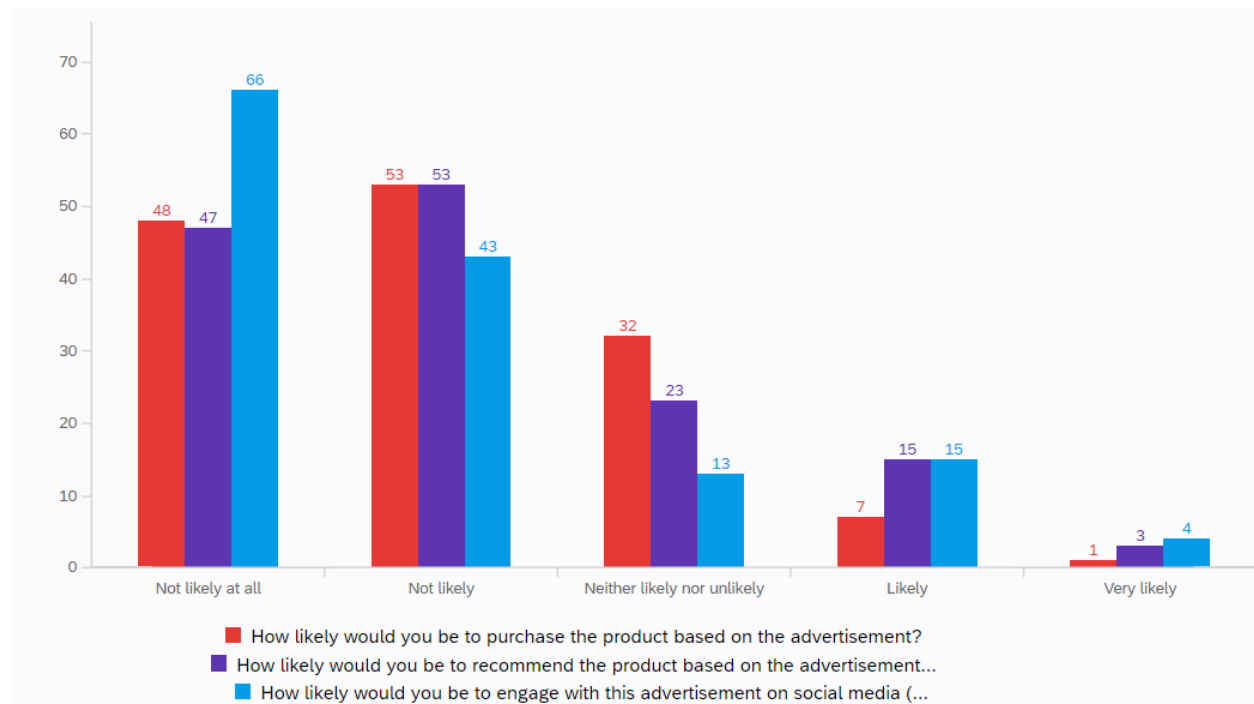


Figure 6: Likelihood of participants to take an action from a human influencer video advertisement

For the Miquela advertisement, 29% of participants said they were not likely to purchase the product based on the ad and 44% said they were not likely at all to do so. These percentages are the same for the likelihood of participants’ recommending the product based on the ad. When asked how likely they would be to engage with the ad, 28% said not likely and 45% said not likely at all (see Figure 7).

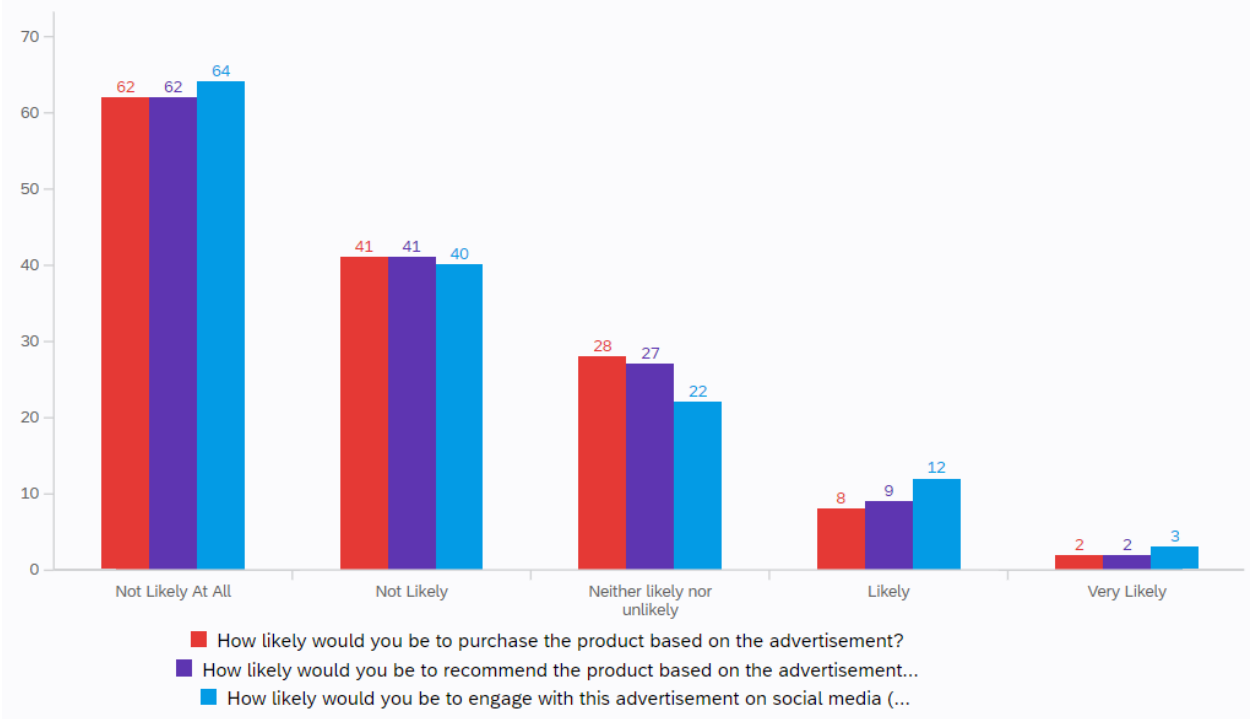


Figure 7: Likelihood of participants to take an action from a CGI influencer video advertisement

The researcher asked participants to pick which of the two advertisements they preferred to determine which one was more liked overall. One hundred and two of the 141 respondents said that they preferred the Ninja ad to the Miquela one. This means that 39 participants, or 28% of participants, preferred the Miquela ad (see Figure 8).

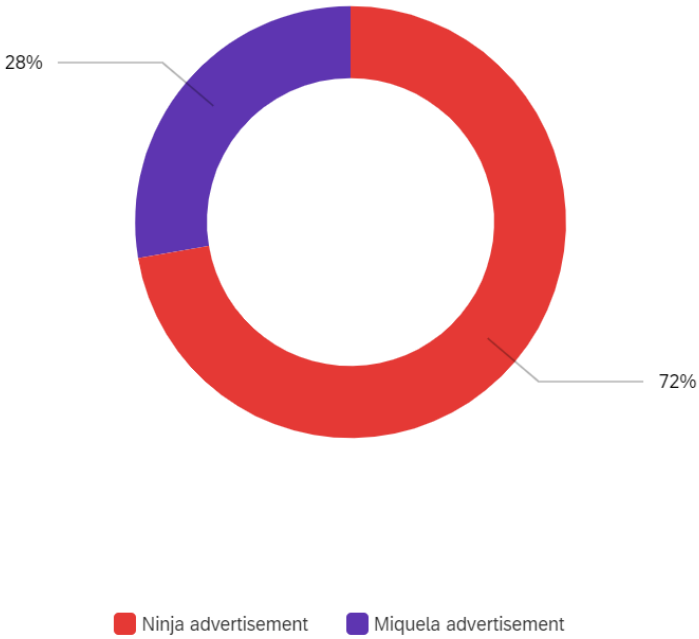


Figure 8: Video advertisement preferences

The final question of the survey before the demographic questions asked participants to say to what extent they agreed or disagreed with various statements about CGI influencers. Sixty-three percent of respondents said they either agreed (45%) or strongly agreed (18%) that they want to know who manages the accounts of CGI influencers. Eighty-one percent either agreed (57%) or strongly agreed (24%) that the number of CGI influencers on social media will grow in the following years, and most respondents either agreed (39%) or neither agreed nor disagreed (26%) that there will be more CGI influencers on social media than human influencers. When asked if they preferred CGI influencers to human influencers, most of the respondents said they either disagreed (32%) or strongly disagreed (35%). Twenty-eight percent said they neither agreed nor disagreed with the statement. Participants were asked if they would consider following a CGI influencer on social media, to which 61% responded either disagree (34%) or

strongly disagree (27%), 16% neither agreed nor disagreed, and the remaining 23% either agreed (18%) or strongly agreed (5%).

	Gender		Total
	Male	Female	
Preferred video ad			
Ninja advertisement	37	64	101
	84%	67%	
Miquela advertisement	7	31	38
	16%	33%	
Total	44	95	139
P-value	0.04		

Figure 9: Gender vs Video Advertisement Preference Crosstabulation

The researcher conducted a series of Chi-Square Tests to test relationships between variables of her survey. She ran a Chi-Square Test to determine if there is a relationship between participant's gender and which of the two video advertisements they showed a preference for. This test generated a p-value of .04 (see Figure 9). This p-value is less than .05. Therefore, there is a statistically significant relationship between gender and video advertisement preference. While both male and female participants showed a preference for Ninja's advertisement, males were more likely to prefer the Ninja advertisement than females according to the data.

	Age		Total
	18-20	21-26	
Preferred video ad			
Ninja advertisement	55	37	92
	73%	74%	
Miquela advertisement	20	13	33
	27%	26%	
Total	75	50	125
P-value	0.93		

Figure 10: Age vs Video Advertisement Preference Crosstabulation

The researcher conducted another Chi-Square Test to test the association between participants ages and which of the two video ads they preferred. Participants were grouped into two age ranges, ages 18 to 20 and 21 to 26. The 10 participants who were above the age of 26 were not included in this test. The test rendered a p-value of 0.93 (see Figure 10). This number is larger than 0.05, which means the results are not significant. This means that there is no relationship between age and video ad preference.

	Follow human influencers		Total
	Yes	No	
Purchase based on Ninja's ad			
Not likely at all/Not likely	62	39	101
	79%	62%	
Neither likely nor unlikely/Likely/Very Likely	16	24	38
	21%	38%	
Total	78	63	141
P-value	0.2		

Figure 11: Following Human Influencers vs Likelihood of Purchasing the Product Based on Ninja's Ad Crosstabulation

Additional Chi-Square Tests were conducted to see if participants who followed human influencers on social media responded to the video ads differently than participants who did not. Human influencers were chosen as opposed to CGI influencers for these tests because only 4% of participants said they followed CGI influencers, which is too small of a sample size to get reliable results. The first test tested the relationship between the likelihoods that respondents gave for purchasing the product shown in Ninja’s (human influencer) ad and whether or not they followed human influencers. According to the test, the p-value is 0.2 (see Figure 11). This number is greater than 0.05, which indicates no relationship between following human influencers and the likelihood of purchasing a product based on a human influencer’s ad.

	Follow human influencers		Total
	Yes	No	
Rec based on Ninja's ad			
Not likely at all/Not likely	56	44	100
	72%	70%	
Neither likely nor unlikely/Likely/Very Likely	22	19	38
	28%	30%	
Total	78	63	141
P-value	0.21		

Figure 12: Following Human Influencers vs Likelihood of Recommending the Product Based on Ninja’s Ad Crosstabulation

The researcher also tested for a relationship between the likelihood of participants recommending the product shown in Ninja’s ad and if they followed human influencers. The p-value for this test is 0.21 (see Figure 12). This p-value is greater than 0.05 which means there is

no relationship between following human influencers and how likely participants were to recommend the product based on Ninja’s ad.

	Follow human influencers		Total
	Yes	No	
Purchase based on Miquela's ad			
Not likely at all/Not likely	63	40	103
	81%	63%	
Neither likely nor unlikely/Likely/Very Likely	15	23	38
	19%	37%	
Total	78	63	141
P-value	0.08		

Figure 13: Following Human Influencers vs Likelihood of Purchasing the Product Based on Miquela’s Ad Crosstabulation

The same tests were conducted using the results from the questions that asked participants how likely they would be to purchase and recommend the product based on Miquela’s (CGI influencer) ad. The first test tested for an association between whether or not participants followed human influencers and the likelihoods they gave for purchasing the product after watching Miquela’s ad. The p-value for this test is 0.08 (see Figure 13). Since this number is greater than 0.05, there is no relationship between these two variables.

	Follow human influencers		Total
	Yes	No	
Rec based on Miquela's ad			
Not likely at all/Not likely	62	41	103
	79%	65%	
Neither likely nor unlikely/Likely/Very Likely	16	22	38
	21%	35%	
Total	78	63	141
P-value	0.01		

Figure 14: Following Human Influencers vs Likelihood of Recommending the Product Based on Miquela's Ad Crosstabulation

The final Chi-Square Test tested for a relationship between whether or not participants followed human influencers and the likelihoods they gave for recommending the product after watching Miquela's ad. The test rendered a p-value of 0.01 (see Figure 14). Since this number is less than 0.05, there is proof of a statistically significant relationship between following human influencers and the likelihood of recommending the product after watching Miquela's ad. Participants who did not follow human influencers were more likely to answer "neither likely nor unlikely", "likely", or "very likely" when asked about their willingness to recommend the product shown in the CGI influencers ad than those who followed human influencers.

Discussion

The purpose of this study was to gain a better understanding of how people ages 18-24 feel about CGI influencer marketing and how those feelings vary from the ones they express towards human influencer marketing. The researcher had three main questions that she answered through her research. First, she wanted to know how aware people were of the presence of CGI influencers on social media sites. Based on the data collected, it can be inferred that people ages 18-24 are not very familiar with these kinds of influencers and only a small percentage of them follow CGI influencers on social media. They were more aware of human influencers and more participants followed them as opposed to CGI influencers. This study is worth replicating in the future to see if people become more aware of and follow more CGI influencers on social media once CGI technology inevitably becomes more popular.

The researcher also posed the following question: “How do people respond to marketing content shared by CGI influencers?” As evident by the respondent’s answers to the questions about Miquela’s Samsung advertisement, people ages 18 to 24 are generally unlikely to take actions in response to a CGI influencer’s promotional content. Almost 75% of participants said they were either not likely or not likely at all to purchase the product being advertised, recommend the product, or engage with the ad on social media. There could be several explanations to why the majority of participants responded negatively to the ad. For example, respondents with a preference for Apple phones may be less likely to recommend or purchase the phone being advertised because it is a Samsung product. They may also have known about Miquela prior to completing the survey and have negative feelings towards her, which contributed to their negative responses to the ad.

Most participants also said they would be either not likely or not likely at all to purchase the product or recommend the product being promoted by a CGI influencer in the KFC Instagram ad. These responses as well as the responses to Miquela's video ad provide sufficient evidence to confirm the researcher's hypothesis that participants would respond more negatively than positively to CGI influencer marketing content. While the majority of responses were negative for both ads, more respondents said they felt neutral about recommending or purchasing the product for this ad than for Miquela's video ad. Various factors may have contributed to this, including the participants personal feelings towards KFC or Dr. Pepper (the product being advertised in the ad) and the fact that the KFC ad was a still image as opposed to a video ad.

The final research question is "How do participants responses to CGI influencer marketing content differ from their responses to human influencer marketing content?" Based on the results of her survey, the researcher found that respondents showed a preference towards the ad featuring a human influencer than the ad with a CGI one. Almost 75% of respondents said they preferred a human influencers ad to a very similar ad featuring a CGI influencer. They were also more willing to purchase and recommend the product after watching the human influencers ad despite both ads featuring the same exact product. The majority of participants also either strongly disagreed or disagreed with the statement "I prefer CGI influencers to human influencers."

The results of the researcher's survey are beneficial to marketing professionals, particularly marketing professionals who use/are considering using influencer marketing as a method of communicating with an audience of people between the ages of 18 and 24. These findings suggest that people ages 18 to 24 are more likely to engage with and express positive sentiments for ads featuring human influencers as oppose to CGI influencers. They also show

that people have an overall preference for human influencers. Marketing professionals who want to know more about why people have these opinions should conduct additional research to determine those reasons. Additionally, our findings show that people are less aware of CGI influencers than human influencers and only a small amount follow CGI influencers on social media sites. Marketing professionals should take that factor into consideration when deciding if they should use a CGI influencer for promotional purposes.

Limitations and Future Research

This study has limitations which could indicate opportunities for future research. One of these limitations was the method used to collect the data. Due to the COVID-19 pandemic, the researcher collected data entirely online using a survey. Future researchers should consider conducting research on this subject in person through the use of focus groups and interviews rather than just an online survey. This would allow them to gain a deeper understanding of participants feelings and why they expressed the opinions they did. It would also allow them to ask additional questions and get clarification when needed. Another limitation is the lack of reliable preexisting studies on the topic of CGI influencers and CGI influencer marketing. This lack of reliable data meant the researcher did not have a strong foundation which she could base her survey questions on. It also means that there is an opportunity for future research to be conducted. A final limitation of the study are biases held by individual participants. Respondents may have personal biases towards the influencers featured in the survey which may have impacted their responses.

Appendix

Screening Questions:

I agree to take part in this study.

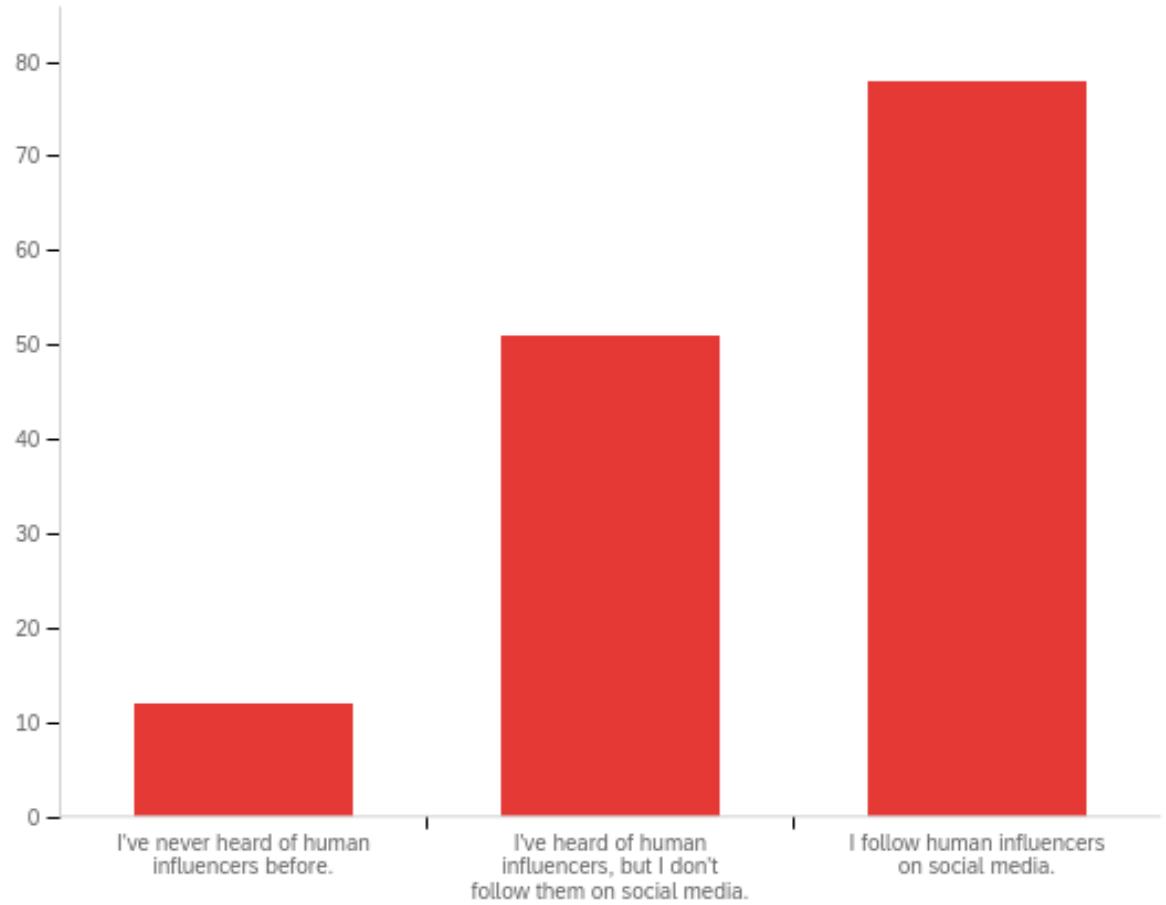
#	Answer	%	Count
1	Yes	100%	141
	Total	100%	141

Are you 18 years old or older?

#	Answer	%	Count
1	Yes	100%	141
	Total	100%	141

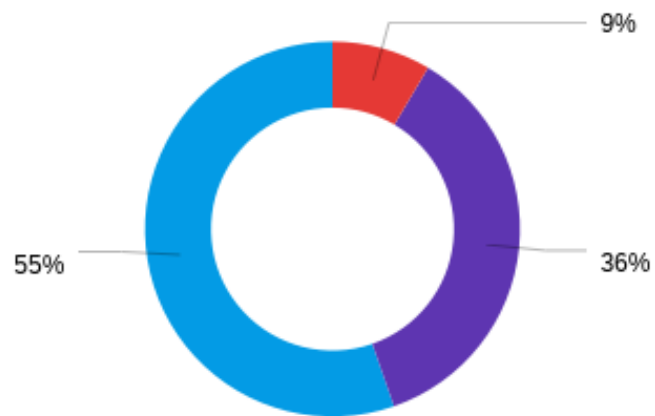
Survey Questions:

Q1 - Select the statement that best describes your awareness of human influencers:



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Select the statement that best describes your awareness of human influencers:	1	3	2	1	0	141

#	Answer	%	Count
1	I've never heard of human influencers before.	9%	12
2	I've heard of human influencers, but I don't follow them on social media.	36%	51
3	I follow human influencers on social media.	55%	78
	Total	100%	141

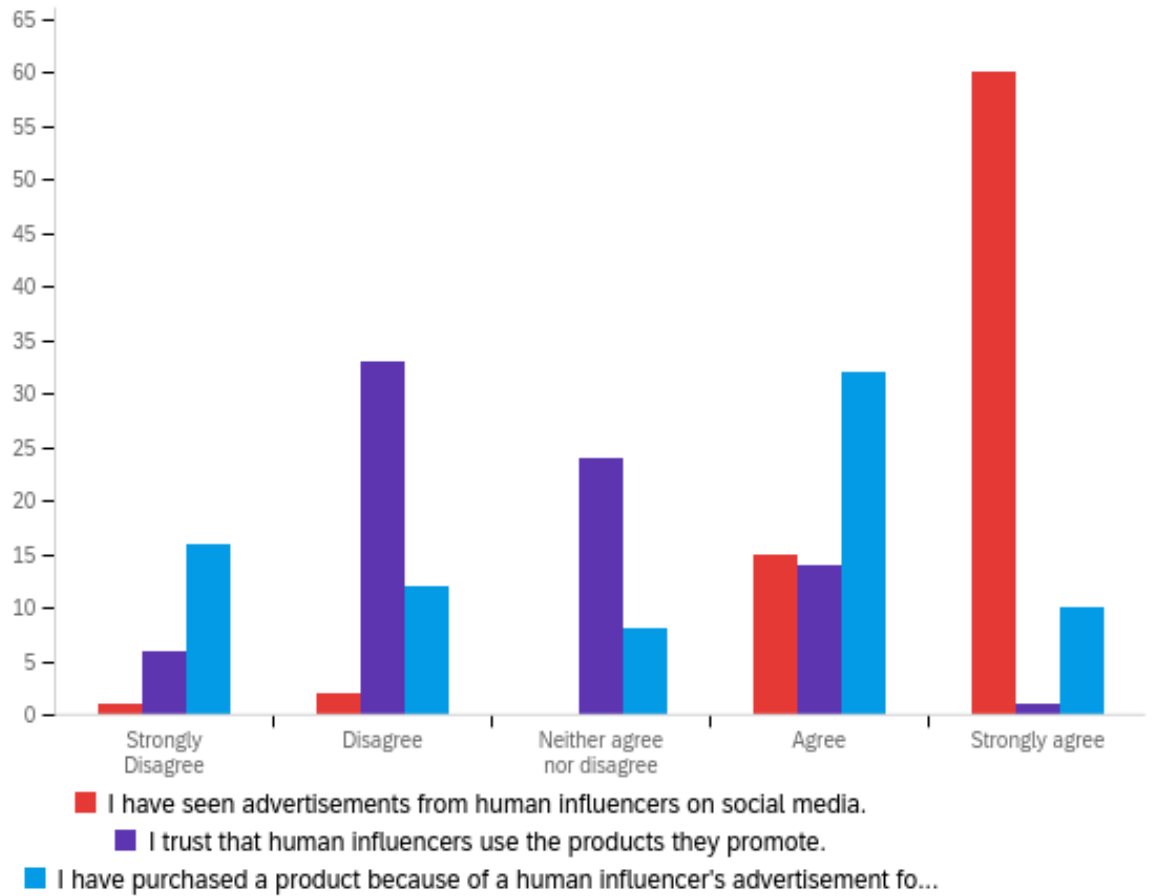


■ I've never heard of human influencers before.

■ I've heard of human influencers, but I don't follow them on social media.

■ I follow human influencers on social media.

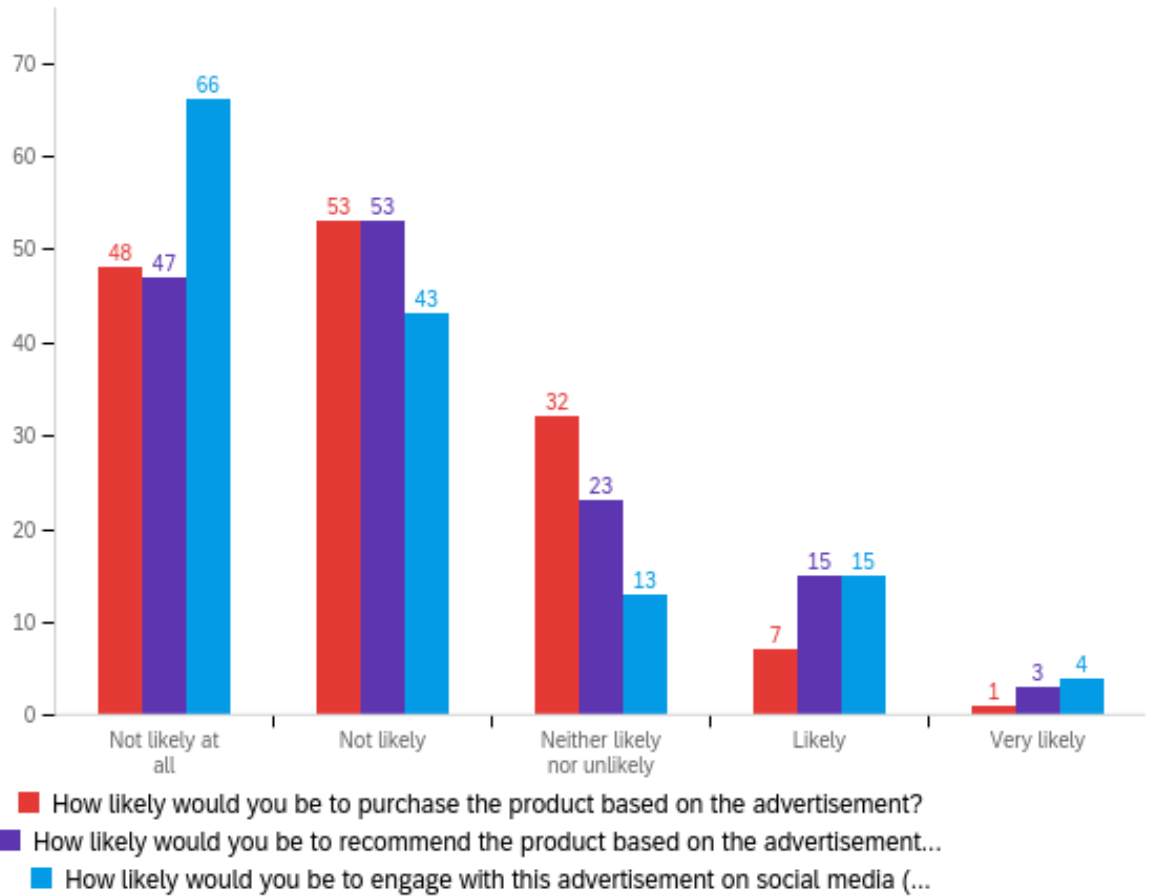
Q2 - To what extent do you agree or disagree with each of the following statements about human influencers?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I have seen advertisements from human influencers on social media.	1	5	5	1	1	78
2	I trust that human influencers use the products they promote.	1	5	3	1	1	78
3	I have purchased a product because of a human influencer's advertisement for the product.	1	5	3	1	2	78

#	Question	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly agree		Total
1	I have seen advertisements from human influencers on social media.	1%	1	3%	2	0%	0	19%	15	77%	60	78
2	I trust that human influencers use the products they promote.	8%	6	42%	33	31%	24	18%	14	1%	1	78
3	I have purchased a product because of a human influencer's advertisement for the product.	21%	16	15%	12	10%	8	41%	32	13%	10	78

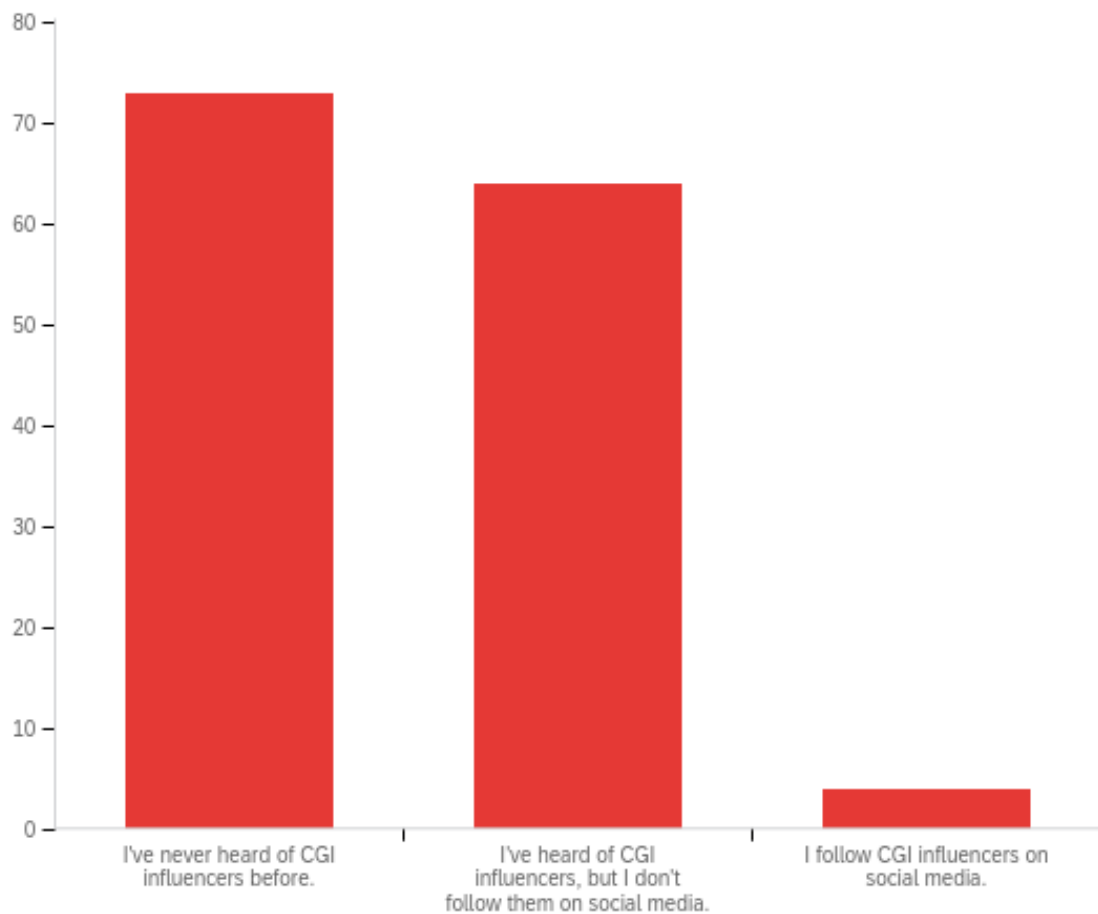
Q3 - Watch the following video of a human influencer advertising a product then answer the following questions.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How likely would you be to purchase the product based on the advertisement?	1	5	2	1	1	141
2	How likely would you be to recommend the product based on the advertisement?	1	5	2	1	1	141
3	How likely would you be to engage with this advertisement on social media (like, share, retweet, etc.)	1	5	2	1	1	141

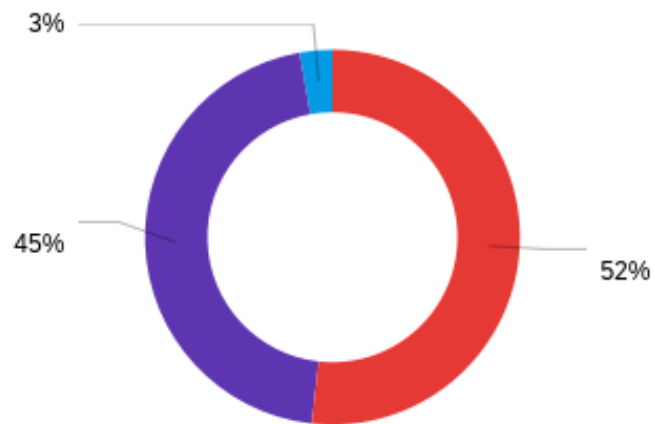
#	Question	Not likely at all		Not likely		Neither likely nor unlikely		Likely		Very likely		Total
1	How likely would you be to purchase the product based on the advertisement?	34%	48	38%	53	23%	32	5%	7	1%	1	141
2	How likely would you be to recommend the product based on the advertisement?	33%	47	38%	53	16%	23	11%	15	2%	3	141
3	How likely would you be to engage with this advertisement on social media (like, share, retweet, etc.)	47%	66	30%	43	9%	13	11%	15	3%	4	141

Q4 - Select the statement that best describes your awareness of computer-generated imagery (CGI) influencers.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Select the statement that best describes your awareness of computer-generated imagery (CGI) influencers.	1	3	2	1	0	141

#	Answer	%	Count
1	I've never heard of CGI influencers before.	52%	73
2	I've heard of CGI influencers, but I don't follow them on social media.	45%	64
3	I follow CGI influencers on social media.	3%	4
	Total	100%	141

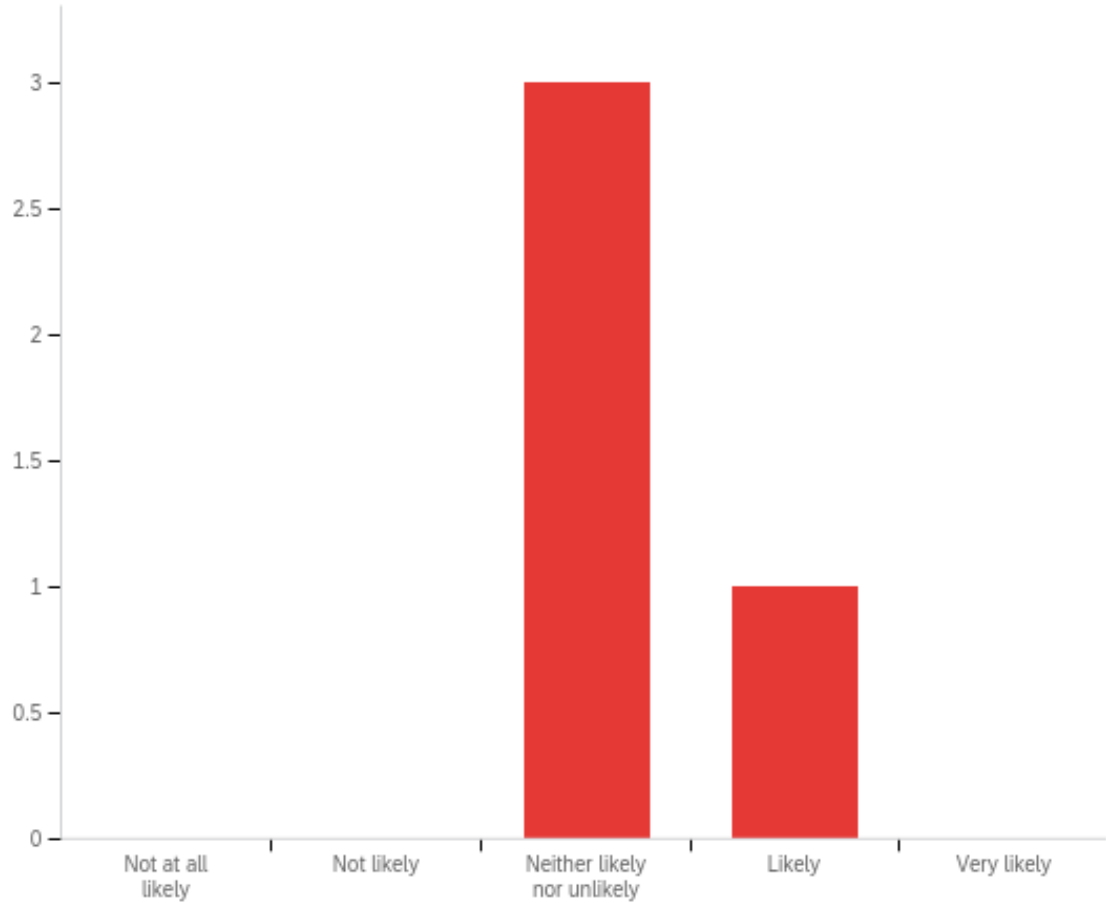


■ I've never heard of CGI influencers before.

■ I've heard of CGI influencers, but I don't follow them on social media.

■ I follow CGI influencers on social media.

Q5 - How likely would you be to follow more CGI influencers on social media?

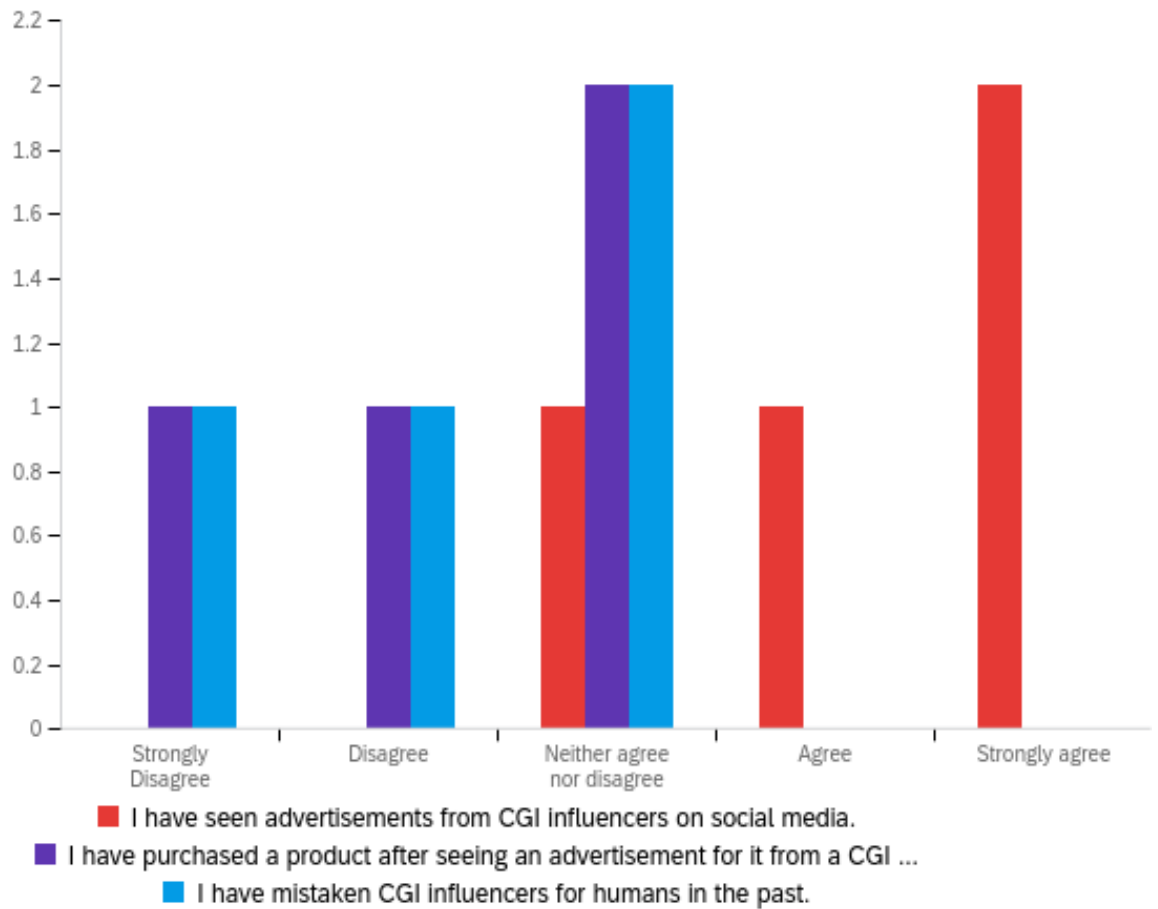


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How likely would you be to follow more CGI influencers on social media?	3	4	3	0	0	4

#	Answer	%	Count
1	Not at all likely	0%	0
2	Not likely	0%	0
3	Neither likely nor unlikely	75%	3
4	Likely	25%	1

5	Very likely	0%	0
	Total	100%	4

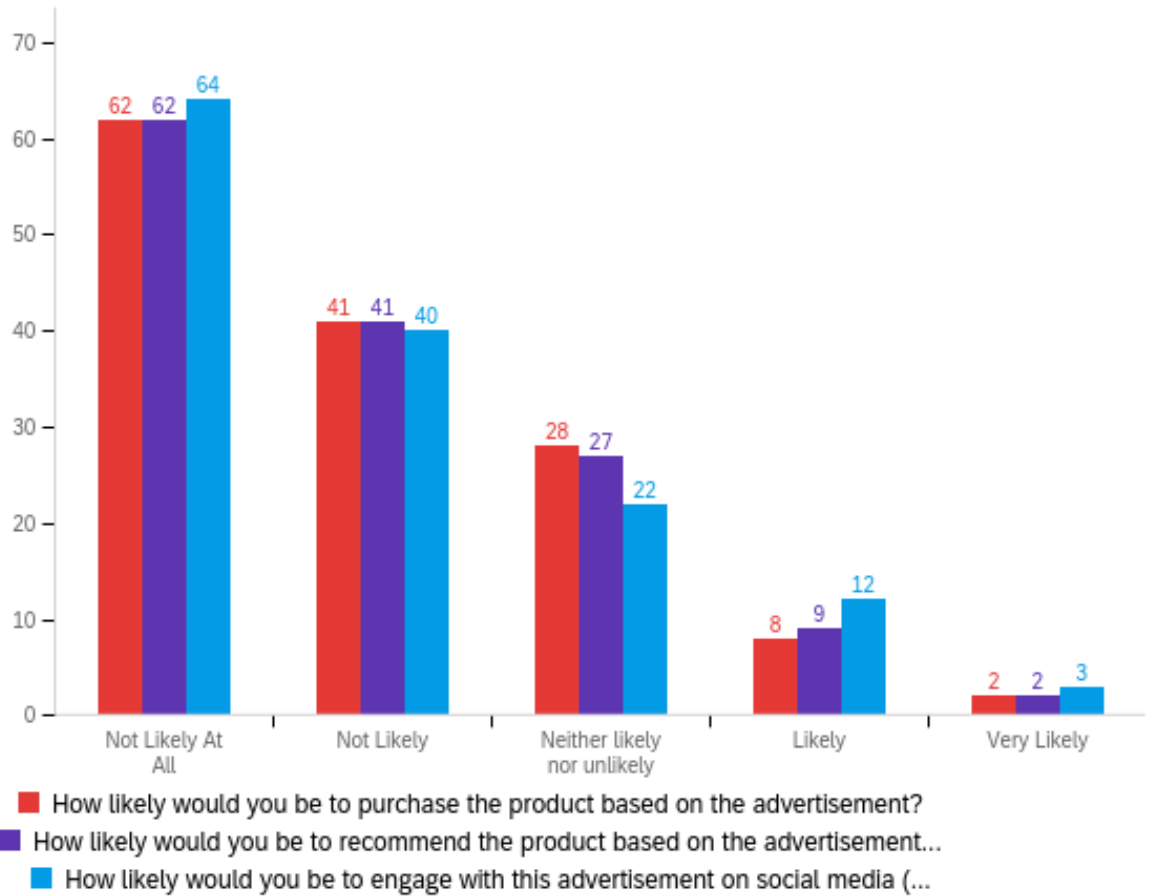
Q6 - To what extent do you agree or disagree with the following statements about CGI influencers?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I have seen advertisements from CGI influencers on social media.	3	5	4	1	1	4
2	I have purchased a product after seeing an advertisement for it from a CGI influencer.	1	3	2	1	1	4
3	I have mistaken CGI influencers for humans in the past.	1	3	2	1	1	4

#	Question	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly agree		Total
1	I have seen advertisements from CGI influencers on social media.	0%	0	0%	0	25%	1	25%	1	50%	2	4
2	I have purchased a product after seeing an advertisement for it from a CGI influencer.	25%	1	25%	1	50%	2	0%	0	0%	0	4
3	I have mistaken CGI influencers for humans in the past.	25%	1	25%	1	50%	2	0%	0	0%	0	4

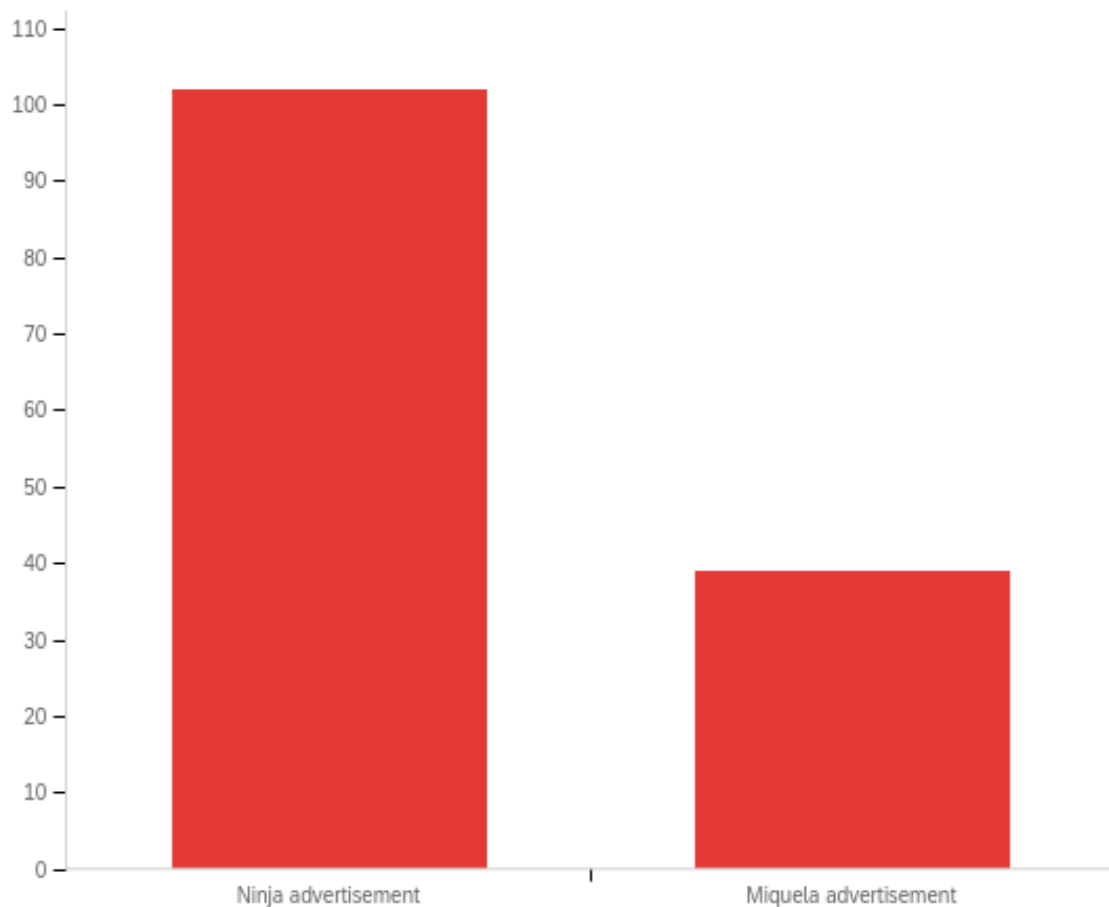
Q7 - Watch the following video of a CGI influencer advertising a product then answer the following questions.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How likely would you be to purchase the product based on the advertisement?	1	5	2	1	1	141
2	How likely would you be to recommend the product based on the advertisement?	1	5	2	1	1	141
3	How likely would you be to engage with this advertisement on social media (like, share, retweet, etc.)	1	5	2	1	1	141

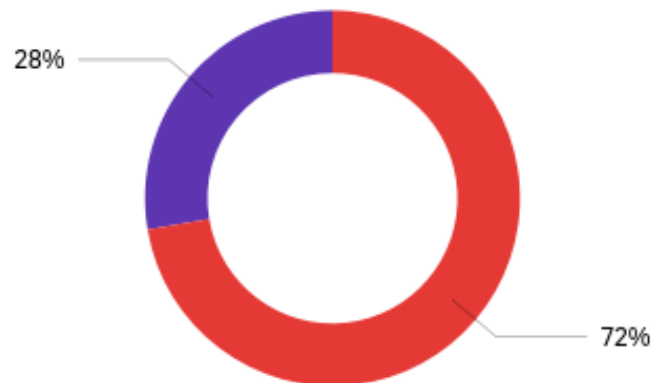
#	Question	Not Likely At All		Not Likely		Neither likely nor unlikely		Likely		Very Likely		Total
1	How likely would you be to purchase the product based on the advertisement?	44%	62	29%	41	20%	28	6%	8	1%	2	141
2	How likely would you be to recommend the product based on the advertisement?	44%	62	29%	41	19%	27	6%	9	1%	2	141
3	How likely would you be to engage with this advertisement on social media (like, share, retweet, etc.)	45%	64	28%	40	16%	22	9%	12	2%	3	141

Q8 - Which of the video advertisements did you prefer?



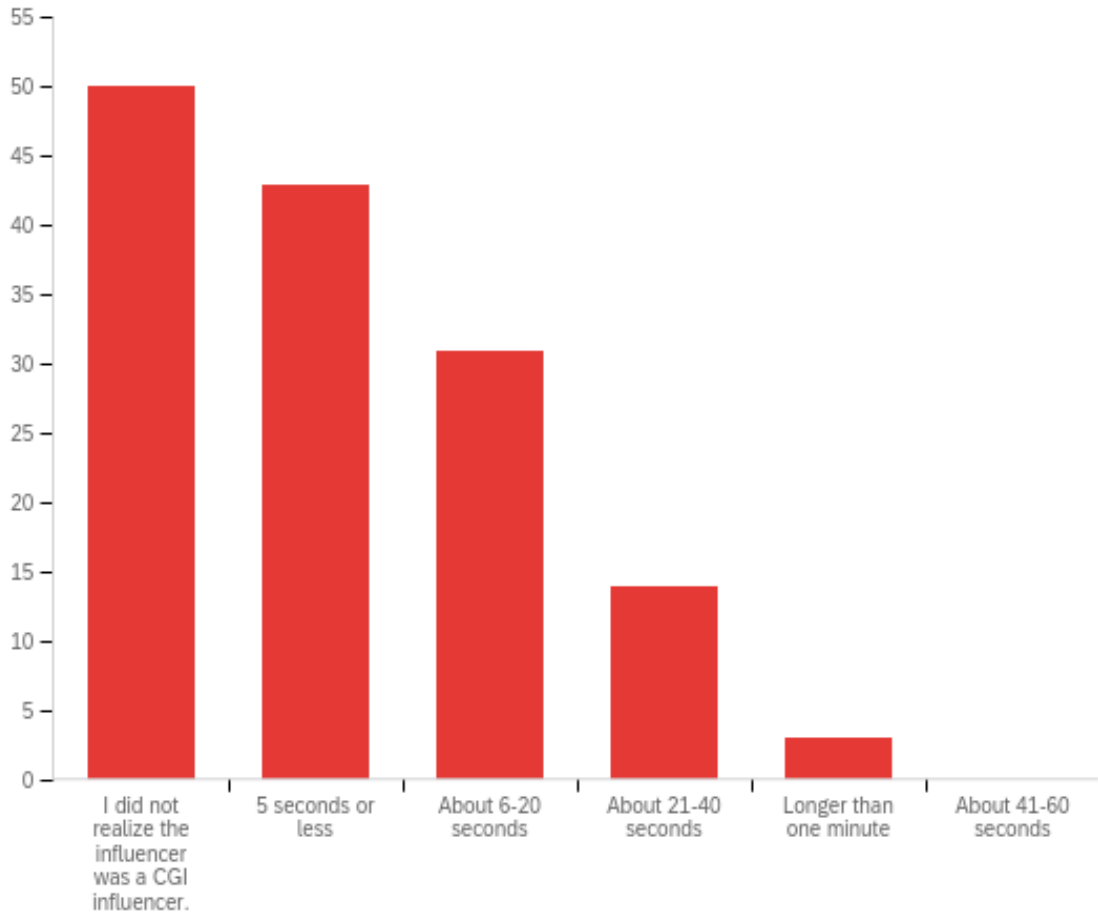
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Which of the video advertisements did you prefer?	1	2	1	0	0	141

#	Answer	%	Count
1	Ninja advertisement	72%	102
2	Lil Miquela advertisement	28%	39
	Total	100%	141



■ Ninja advertisement
 ■ Miquela advertisement

Q9 - About how long did it take you to recognize that this influencer was a CGI influencer?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	About how long did it take you to recognize that this influencer was a CGI influencer?	1	6	3	2	5	141

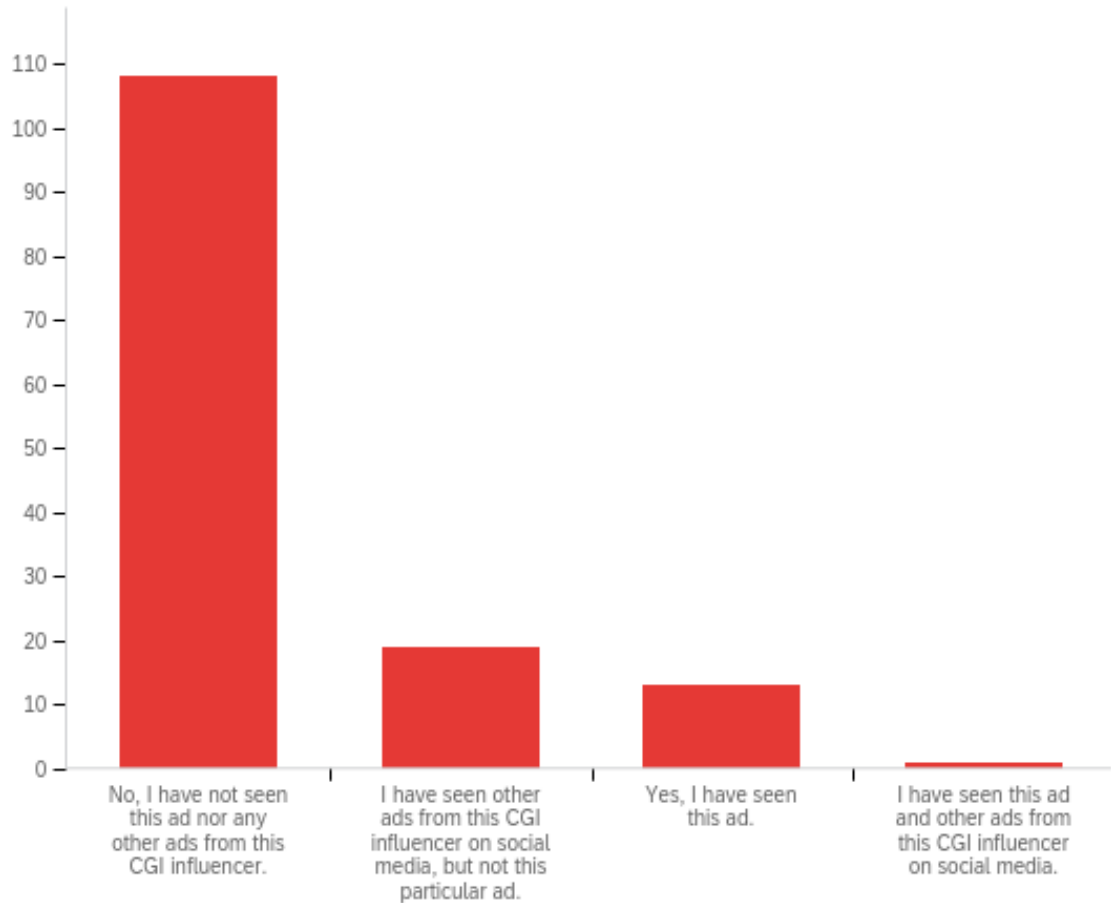
#	Answer	%	Count
1	5 seconds or less	30%	43
2	About 6-20 seconds	22%	31

3	About 21-40 seconds	10%	14
4	About 41-60 seconds	0%	0
5	Longer than one minute	2%	3
6	I did not realize the influencer was a CGI influencer.	35%	50
	Total	100%	141



- 5 seconds or less
- About 6-20 seconds
- About 21-40 seconds
- About 41-60 seconds
- Longer than one minute
- I did not realize the influencer was a CGI influencer.

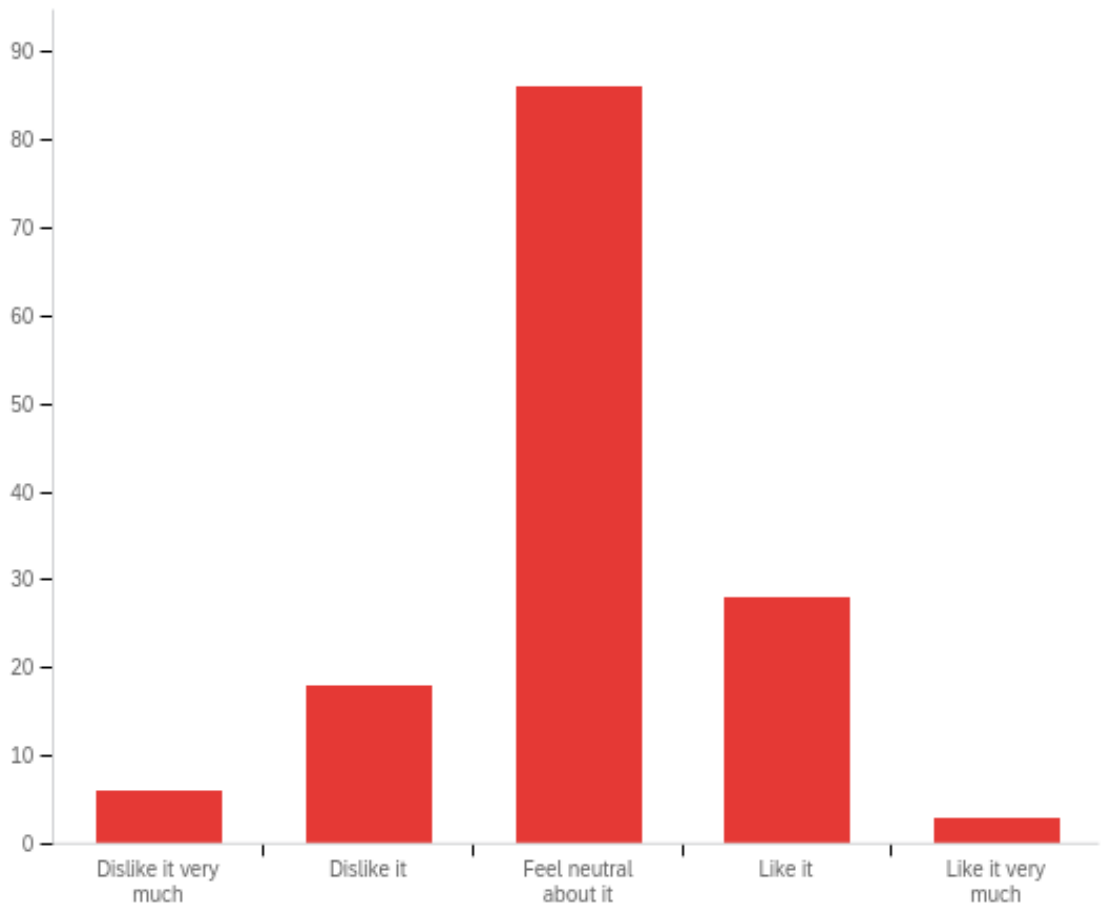
Q10 - Have you seen this ad on social media before?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Have you seen this ad on social media before?	1	4	4	1	1	141

#	Answer	%	Count
1	Yes, I have seen this ad.	9%	13
2	I have seen this ad and other ads from this CGI influencer on social media.	1%	1
3	I have seen other ads from this CGI influencer on social media, but not this particular ad.	13%	19
4	No, I have not seen this ad nor any other ads from this CGI influencer.	77%	108
	Total	100%	141

Q11 - Thinking about the ad overall, which of the following best describes how much you like/dislike the ad?

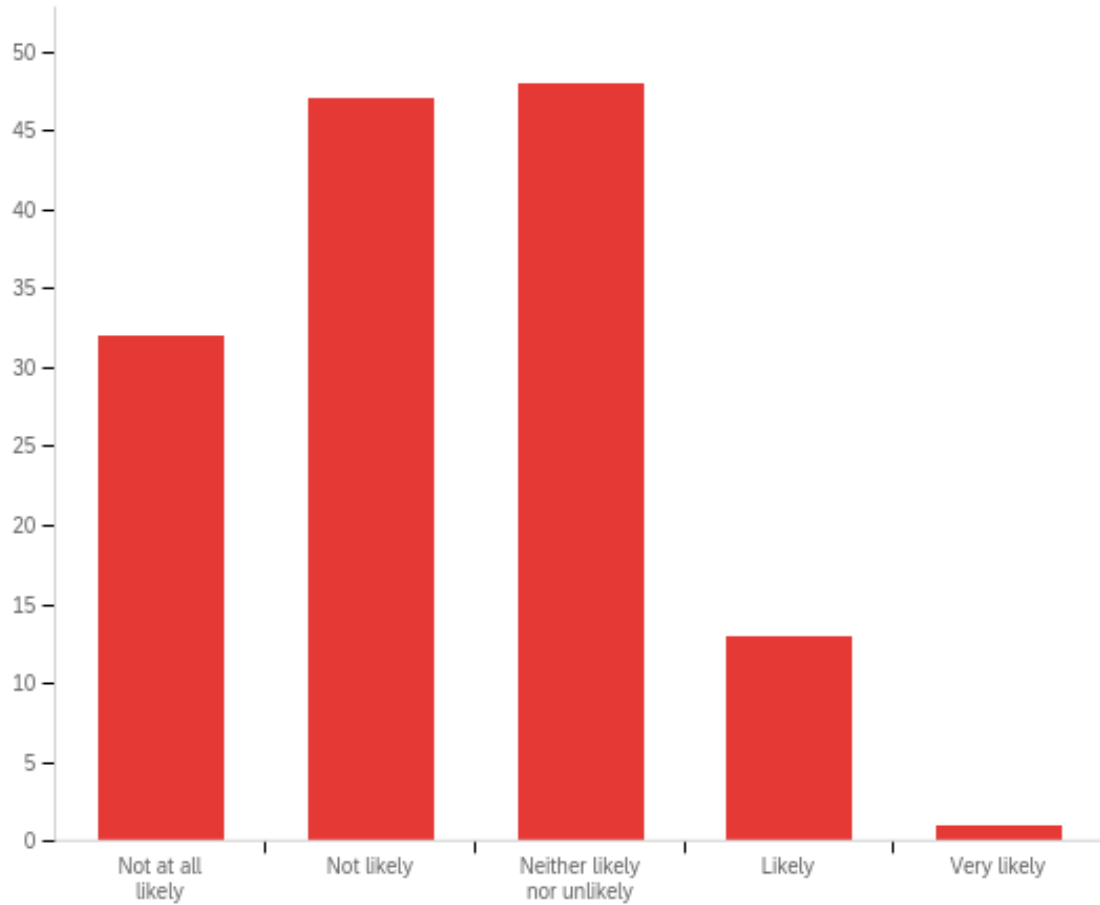


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Thinking about the ad overall, which of the following best describes how much you like/dislike the ad?	1	5	3	1	1	141

#	Answer	%	Count
1	Dislike it very much	4%	6
2	Dislike it	13%	18

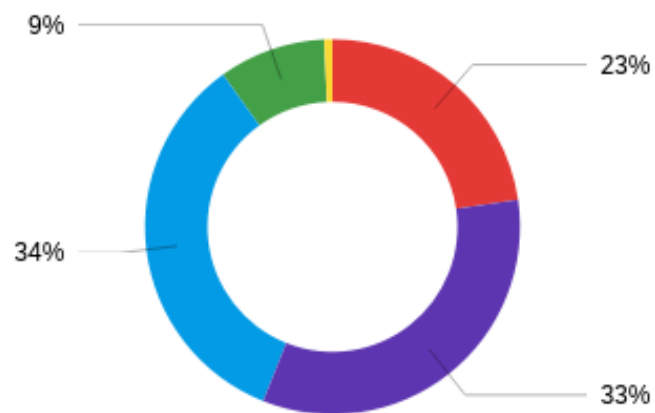
3	Feel neutral about it	61%	86
4	Like it	20%	28
5	Like it very much	2%	3
	Total	100%	141

Q12 - How likely would you be to buy the product based on the ad?



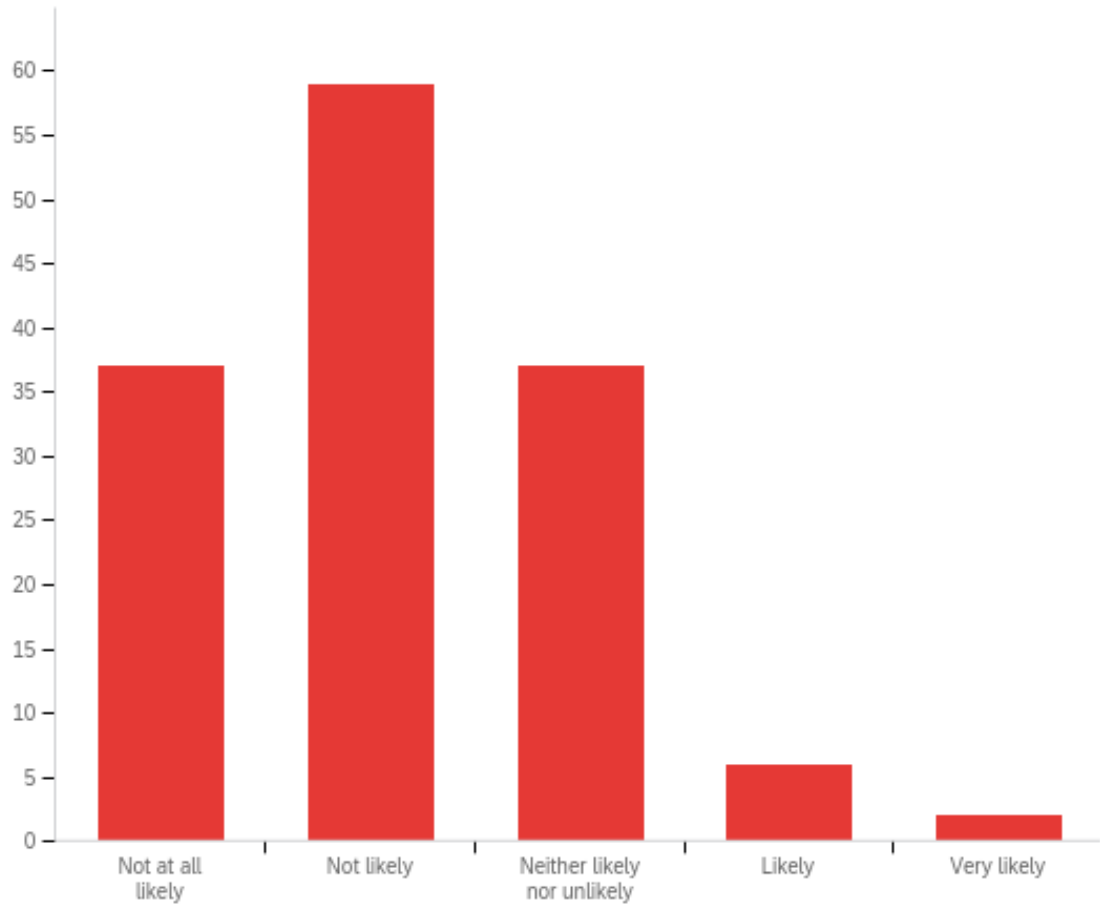
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How likely would you be to buy the product based on the ad?	1	5	2	1	1	141

#	Answer	%	Count
1	Not at all likely	23%	32
2	Not likely	33%	47
3	Neither likely nor unlikely	34%	48
4	Likely	9%	13
5	Very likely	1%	1
	Total	100%	141



■ Not at all likely
 ■ Not likely
 ■ Neither likely nor unlikely
 ■ Likely
 ■ Very likely

Q13 - How likely would you be to recommend the product based on the ad?



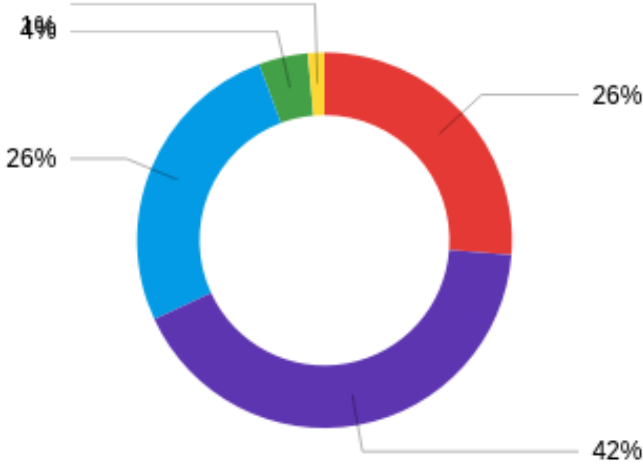
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How likely would you be to recommend the product based on the ad?	1	5	2	1	1	141

#	Answer	%	Count
1	Not at all likely	26%	32
2	Not likely	42%	47
3	Neither likely nor unlikely	26%	48
4	Likely	4%	13
5	Very likely	1%	1

Total

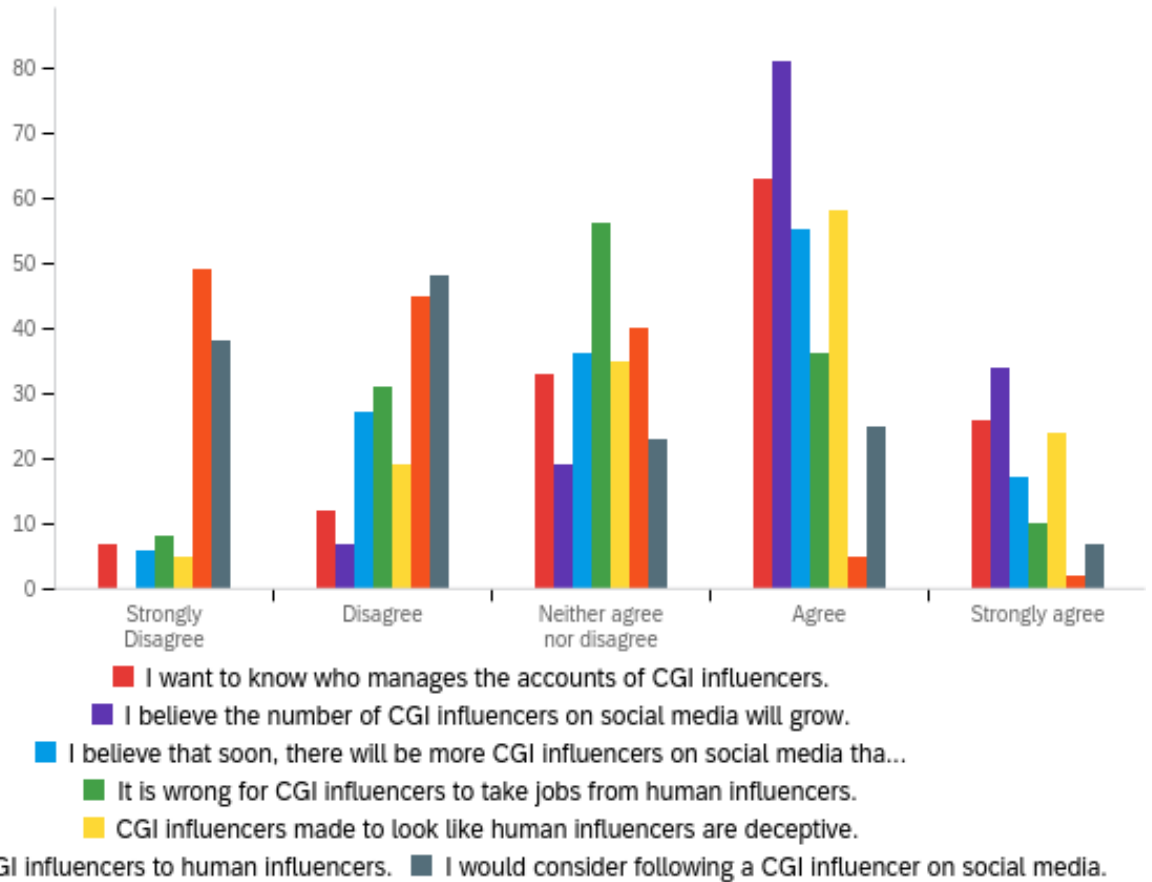
100%

141



Not at all likely Not likely Neither likely nor unlikely Likely Very likely

Q14 - To what extent do you agree or disagree with each of the following statements about CGI influencers?



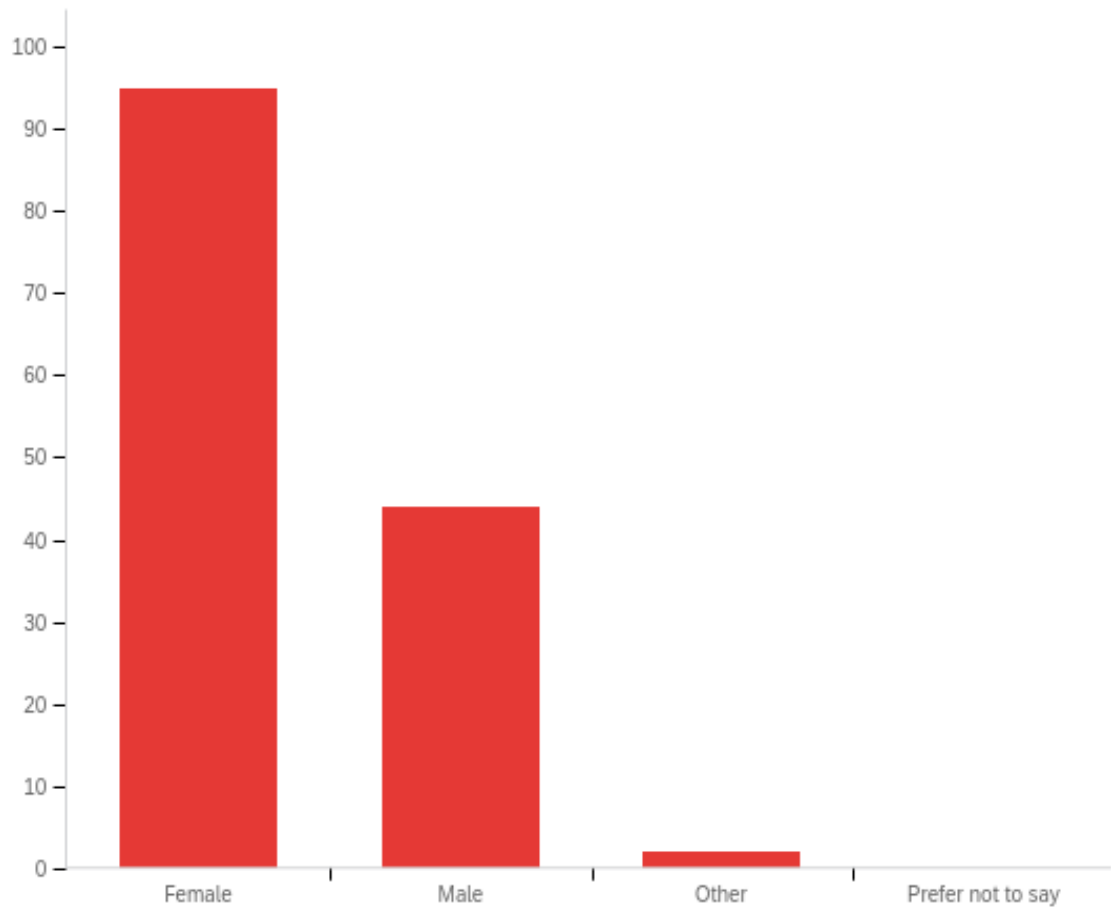
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	I want to know who manages the accounts of CGI influencers.	1	5	4	1	1	141
2	I believe the number of CGI influencers on social media will grow.	2	5	4	1	1	141
3	I believe that soon, there will be more CGI influencers on social media than human influencers.	1	5	3	1	1	141
4	It is wrong for CGI influencers to take jobs from human influencers.	1	5	3	1	1	141
5	CGI influencers made to look like human influencers are deceptive.	1	5	4	1	1	141
6	I prefer CGI influencers to human influencers.	1	5	2	1	1	141

7	I would consider following a CGI influencer on social media.	1	5	2	1	1	141
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#	Question	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
1	I want to know who manages the accounts of CGI influencers.	5% 7	9% 12	23% 33	45% 63	18% 26	141
2	I believe the number of CGI influencers on social media will grow.	0% 0	5% 7	13% 19	57% 81	24% 34	141
3	I believe that soon, there will be more CGI influencers on social media than human influencers.	4% 6	19% 27	26% 36	39% 55	12% 17	141
4	It is wrong for CGI influencers to take jobs from human influencers.	6% 8	22% 31	40% 56	26% 36	7% 10	141
5	CGI influencers made to look like human influencers are deceptive.	4% 5	13% 19	25% 35	41% 58	17% 24	141
6	I prefer CGI influencers	35% 49	32% 45	28% 40	4% 5	1% 2	141

	to human influencers.											
7	I would consider following a CGI influencer on social media.	27%	38	34%	48	16%	23	18%	25	5%	7	141

Q15 - What is your gender?



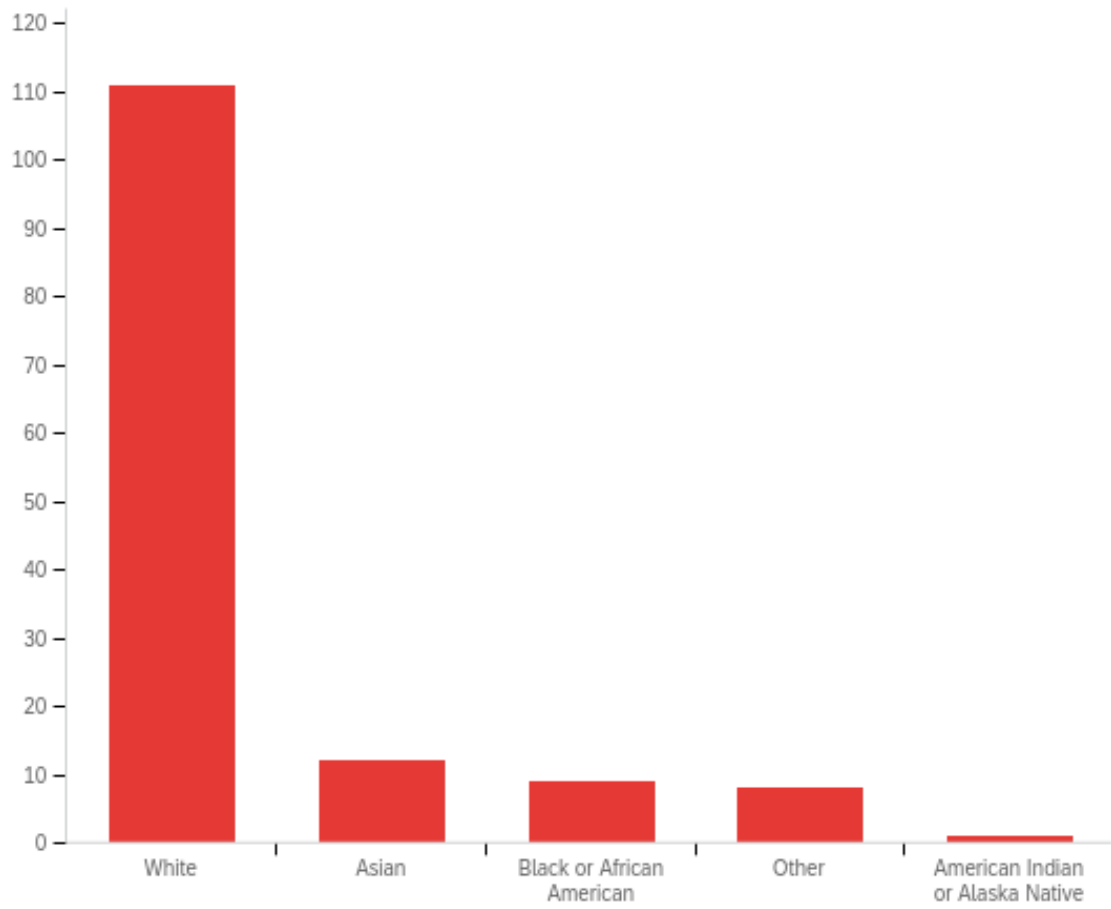
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your gender?	1	3	2	0	0	141

#	Answer	%	Count
1	Male	31%	44
2	Female	67%	95
3	Other	1%	2
4	Prefer not to say	0%	0
	Total	100%	141

Q16 – How old are you?

#	Answer	%	Count
1	18	13%	19
2	19	20%	28
3	20	20%	28
4	21	13%	19
5	22	13%	19
6	23	7%	10
7	24	2%	2
8	25	3%	4
9	26	2%	2
10	27	2%	2
11	28	2%	3
12	31	1%	1
13	33	1%	1
14	37	1%	1
15	54	1%	1
16	55	1%	1
	Total	100%	141

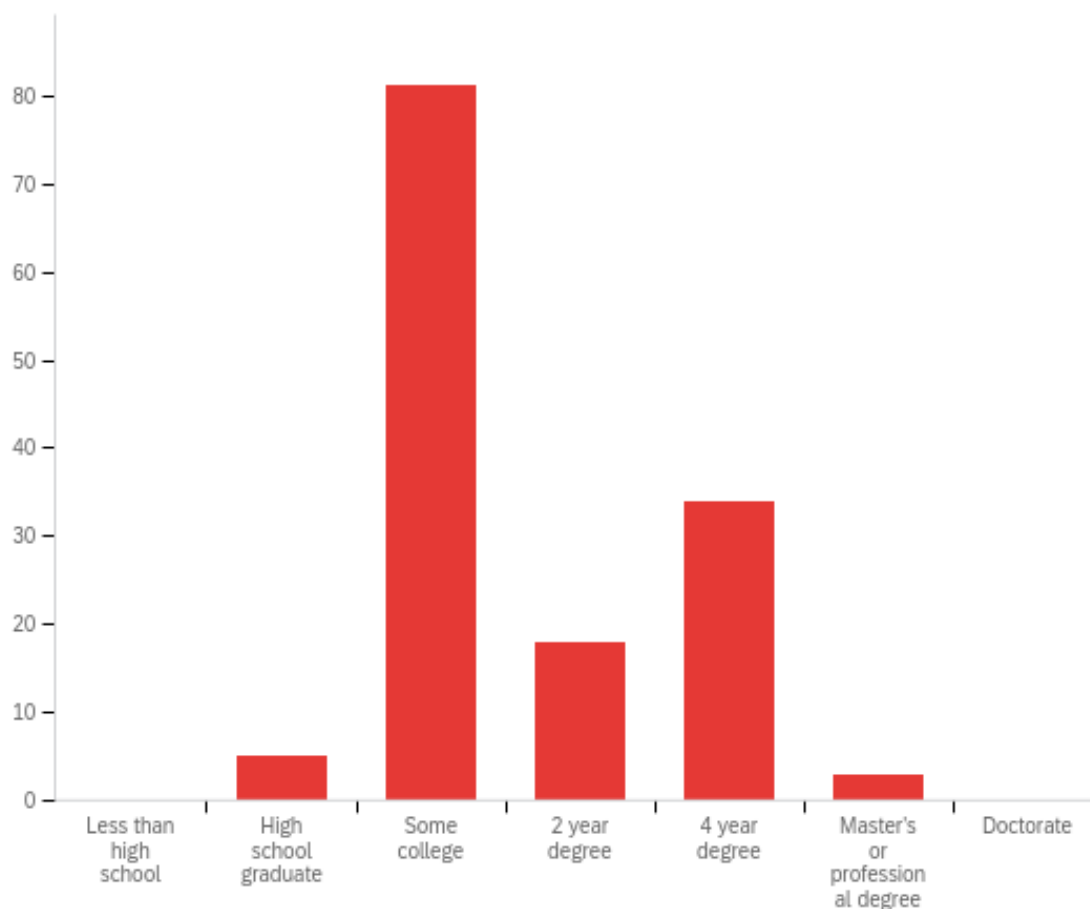
Q17 - What is your race/ethnicity?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your race/ethnicity?	1	6	2	1	2	141

#	Answer	%	Count
1	White	79%	111
6	Other	6%	8
5	Native Hawaiian or Pacific Islander	0%	0
2	Black or African American	6%	9
4	Asian	9%	12
3	American Indian or Alaska Native	1%	1
	Total	100%	141

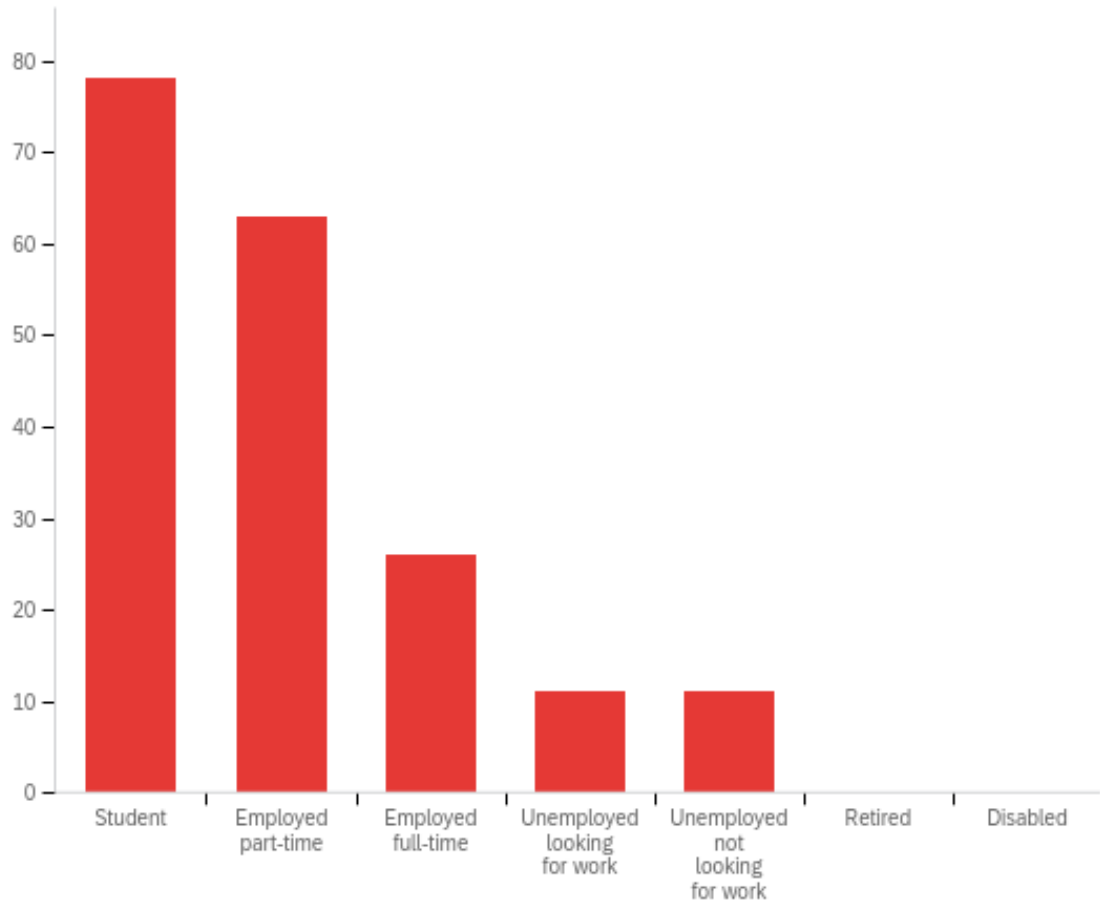
Q18 - What is your current level of education?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your current level of education?	2	6	4	1	1	141

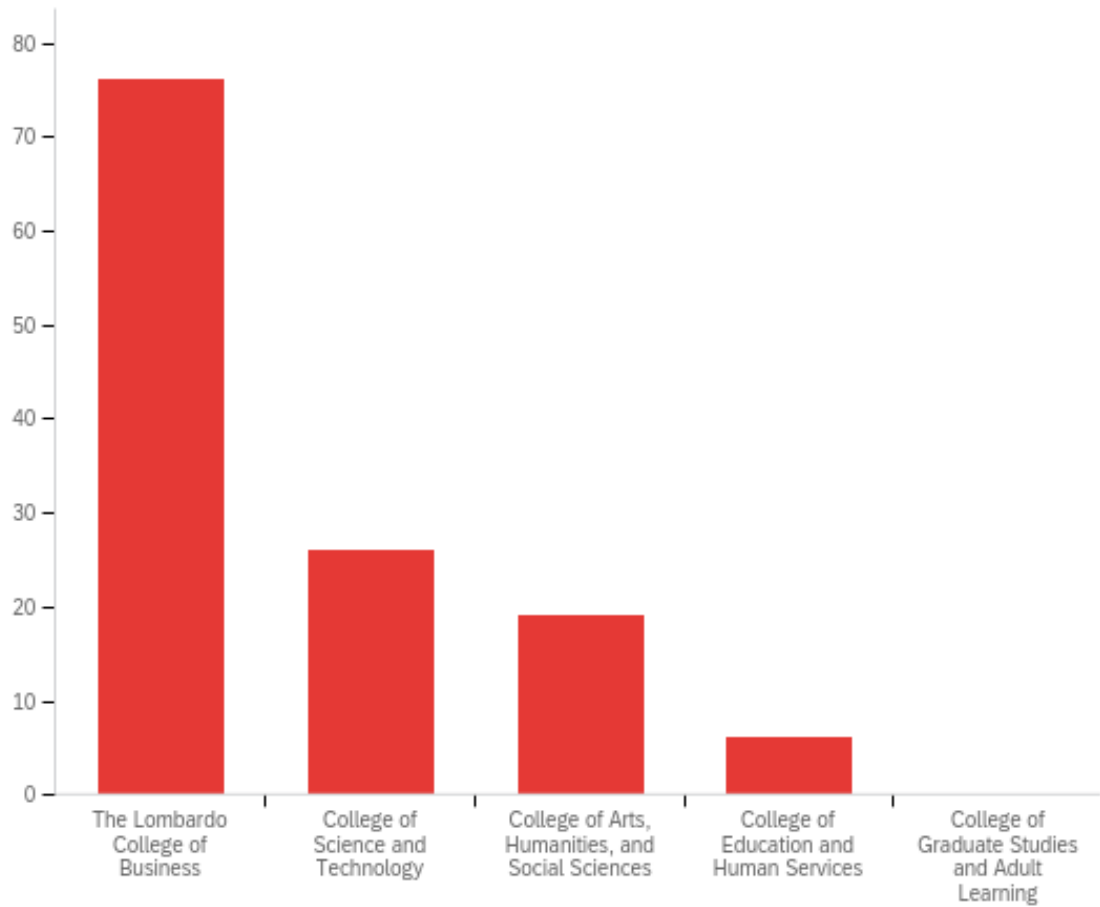
#	Answer	%	Count
1	Less than high school	0%	0
2	High school graduate	4%	5
3	Some college	57%	81
4	2 year degree	13%	18
5	4 year degree	24%	34
6	Master's or professional degree	2%	3
7	Doctorate	0%	0
	Total	100%	141

Q19 - What is your current employment status? Check all that apply.



#	Answer	%	Count
1	Employed full-time	14%	26
2	Employed part-time	33%	63
3	Unemployed looking for work	6%	11
4	Unemployed not looking for work	6%	11
5	Retired	0%	0
6	Student	41%	78
7	Disabled	0%	0
	Total	100%	189

Q20 - Which college are you in?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Which college are you in?	1	4	2	1	1	127

#	Answer	%	Count
1	College of Arts, Humanities, and Social Sciences	15%	19
2	The Lombardo College of Business	60%	76
3	College of Education and Human Services	5%	6
4	College of Science and Technology	20%	26

5	College of Graduate Studies and Adult Learning	0%	0
	Total	100%	127

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