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RESEARCH ARTICLE

AN ANALYSIS OF ALGOSPEAK AND THE DREADED ALGORITHM

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Abstract

Algospeak has become avaluable part of how the internet functions today. Millions of individuals see algospeak every day while they are browsing various social media apps and websites. The popularity of algospeak may even have a measurable impact on day-to-day modern language. Communicating online is becoming increasingly widespread, and people are using algospeak terms in more thantheir social media posts. Individuals may question how this language is being understood by the wider public. If algospeak ismisinterpreted , content creators and other users may fail to comprehendthe intended message. This research aims to determine how well people understand algospeak, which algospeak terms are most widely understood, and which age groups understand algospeak the best. Results have indicated that the younger age groups understand algospeak the best, but it is generally not very well understood. The researchers conclude with insight into the evident trends. Recommendations for future research are also proposed.

Introduction:-

Algospeak is defined as “coded language and euphemisms used on social media platforms to avoid having content removed or filtered by an algorithm” (Dictionary.com, 2024). Social media algorithms can mark certain videos based on their use of language and flag or delete them (Dictionary.com, 2024). Algospeak is the language that has evolved from communities attempting to avoid their content from being marked by the algorithm (Dictionary.com, 2024). Algospeak also helps videos increase in popularity by avoiding being “down-ranked” by any content moderation algorithms (Lorenz, 2022). Some common examples of algospeak are the use of “le$bian” for the word lesbian (Klug et. al, 2023) or “seggs” for sex (Dictionary.com, 2024). The term algospeak was popularized by an article by The Washington Post in 2022 (Dictionary.com, 2024). The initial Washington Post article references the 2020 Covid-19 Pandemic as a primary cause for algospeak’s creation, asserting that increased online engagement led to greater familiarity with the TikTok algorithm (Lorenz, 2022).

Algorithms have been used to increase engagement between social media platforms for over a decade (Kim, 2017). As early as 2009, companies with more than 1,000 employees had more than 200 terabytes of data about their users (Kim, 2017). Social media algorithms typically have three stages (Kim, 2017). They first analyze a user’s accumulated data such as clicks, posts, and photos (Kim, 2017). Then, the algorithm makes a prediction about the type of content the user may like (Kim, 2017). Finally, this genre of video is pushed to the user’s feed (Kim, 2017).

Algospeak is not the first language of its kind. There have been many examples of users using euphemisms to communicate. One of the most prevalent is Leetspeak (Mendizabal et al., 2023). Leetspeak was initially developed

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for spammers to avoid getting caught by spam filters (Mendizabal et al., 2023). They attempt to do this by using symbols that are similar to the letters they are conveying (Mendizabal et al., 2023). For example, the term "Viagra" can be conveyed by spellings such as "v1agra", "v¡agra", and "vi/\gra" (Mendizabal et al., 2023). These misspellings are used in an attempt to avoid messages being flagged as spam and taken out of users' primary inboxes (Mendizabal et al., 2023).

Algospeak primarily resides on the social media platform TikTok, as it is viewed through an untraditional "For You" page (Lorenz, 2022). The "For You" page works by providing users with videos based on their previous activity on the app, such as likes, comments, and shares. The app also filters what content is sent to users' "For You" pages. This sorting is commonly called the algorithm. Following an algorithm's desires and avoiding language it views as offensive or unfit for its platform is essential to gaining and retaining viewership on the app (Lorenz, 2022). Algospeak has become a key for users attempting to spread messages to their communities without having their videos flagged or being banned.

Some users have been found to intentionally manipulate their personal engagement on TikTok to better choose what videos they see on their feed (Karizat et al., 2021). Users have made claims such as liking content only to "see more of it" and intentionally following pages that relate to a certain subject that the user wants to see more of (Karizat et al., 2021). The users who were interviewed claimed that their attempts to manipulate the algorithm have been successful (Karizat et al., 2021). Research suggests that there is a level of understanding of what the algorithm is amongst TikTok's users, and it promotes many "folk theories" about the topic (Karizat et al., 2021).

Shadowbanning is a rumor surrounding social media apps such as TikTok, Twitter, and Facebook. Major social media companies are rumored to employ a filter to the content that is shown to its users (Delmonaco et al., 2024). Shadowbanning involves not showing a content creator's videos to their followers despite not having directly violated any rules of the platform. This differs from a regular ban because the platform does not notify the creator or officially delete the video. Significant evidence has been found suggesting that the rumors around shadowbanning are true (Le Merrer, 2021). It has been shown that these "bans" occur to individuals much more often than random individuals as many social media companies claim (Le Merrer, 2021). Despite this evidence, most forms of social media deny they use shadowbanning (Delmonaco et al., 2024). The rumored existence of shadowbanning is a large reason for algospeak. Users do not want to experience the effects of this nasty rumor, so they use algospeak in an attempt to avoid it.

The TikTok algorithm typically works against marginalized communities (Steen et al., 2023). Users who posted in relation to racial groups or LGBTQ+ communities have faced "unreasonable restrictions" for child safety (Steen et al., 2023). One content creator said, "when it comes to the word 'Black,' I use 'Bl@ck'," in an interview (Steen et al., 2023). Another creator said, "I made a video [. . .] I just said the word 'lesbian' [. . .] that was taken down," (Steen et al., 2023). These restrictions have encouraged users to be more discreet with all content, even content which is not explicit or traditionally offensive (Steen et al., 2023).

Many content creators struggle with using Algospeak, as they feel it may take away from the seriousness of their content (Klug et al., 2023). One creator said, "You spend moretime trying to dodge this little community guidelines bot opposed toactually creating content that is genuine and helpful," (Klug et al., 2023). Another creator claimed that they were receiving constant bans and video removal for "hate speech" for using the word "faggot" when attempting to use it in a completely different context (Klug et al., 2023). The creator was forced to change their writing to "f-baguette" to continue spreading their message (Klug et al., 2023).

Methodology:-

Questions and answers for the survey were derived from the paper You Can (Not) Say What You Want: Using Algospeak to Contest and Evade Algorithmic Content Moderation on TikTok (Steen et al., 2023). The survey was then created to capture demographics such as age, gender, and internet access. Then, the different algospeak terms were displayed, and the respondents were tasked with defining the terms to the best of their ability.

Finally, respondents were invited to provide open-ended comments at the end of the survey. The survey was distributed via social media, email, and text message. The data collection period began on 22 June 2024. It ended on 11 July 2024. The data collected can be publicly viewedusing Google Docs at

https://docs.google.com/spreadsheets/d/13JfmzsgKpmww7LzY6PcQqftSbqIQZDNzH8Q3QiGmQgM/edit?usp=sharing.

Results – Issues and Bias:-
A notable aspect of this survey was the meticulous consideration given to data collection methodologies. The primary challenge involved selecting between multiple-choice and free-response formats for the definition questions. The multiple-choice format facilitated straightforward data collection; however, there was a significant risk of respondents deducing the definitions through the process of elimination. Conversely, the free-response format encouraged authentic comprehension, as respondents were required to rely solely on their knowledge of the word in question. Despite the increased complexity of data collection and the potential for bias, the free-response method was ultimately chosen. This approach was deemed more effective due to the additional insights it provided. Bias was mitigated by utilizing definitions provided by a third-party source.

Results – Accuracy (Survey)
There was a total of 109 responses to the survey. The age distribution of the respondents was as follows: 35.8% were 18-24, 17.4% were 25-34, 13.8% were 35-44, 16.5% were 45-54, 10.1% were 55-64, and 6.4% were 65+ as per Figure A1 in Appendix A. Approximately 55% of these respondents were female while 44% of these respondents were male. Around 1% of these respondents identified as Non-Binary/Other. These results can be seen in Figure A2 in Appendix A. 102 of the respondents reported that their primary language is English. 68.6% of the respondents reported that their State or Country of residence was West Virginia, as per Figure A3 in Appendix A.

After consenting to the survey and answering demographic questions, the respondents were directed to the first of four sections. The first section asked about internet usage. 98.2% of respondents reported using the internet daily. They were then asked about which social media platforms they used. The leading platforms were Facebook and YouTube with 71.6% of respondents using these platforms, as per Figure A4 in Appendix A.

In the next section, respondents were asked about their use and perception of internet slang. Their first two questions asked how often they encounter and use internet slang online and in their own communications. 42.2% of respondents claimed to encounter internet slang very often online. No respondents reported never encountering internet slang online. Only 17.4% reported using internet slang in their own communication. These statistics can be seen in Figures A5 and A6 in Appendix A. They were then asked what their primary reason for using internet slang is. As per Figure A7 in Appendix A, 77.1% of respondents reported using internet slang to make communication faster and more efficient.

The third section of the survey then asked respondents to define terms. These questions were free responses, and they required a method for determining correctness. The correct answers were determined via Table 1 from You Can (Not) Say What You Want: Using Algospeak to Contest and Evade Algorithmic Content Moderation on TikTok (Steen et al., 2023). 68.8% of respondents responded correctly to the prompt “seggs”. 81.7% of respondents responded correctly to the prompt “unalive”. 13.8% of respondents responded correctly to the prompt “le dollar bean”. 20.2% of respondents responded correctly to the prompt “□□□”. 13.8% of respondents responded correctly to the prompt “ouid”. 67.9% of respondents responded correctly to the prompt “□”. 15.6% of respondents responded correctly to the prompt “SH”. 46.8% of respondents responded correctly to the prompt “corn”. 59.6% of respondents responded correctly to the prompt “□□”. 23.9% of respondents responded correctly to the prompt “kermit sewer slide”. 15.6% of respondents responded correctly to the prompt “accountant”.Of all questions asked, 38.9% were answered correctly. These statistics can be seen in Figures A8 through A19 in Appendix A.

Conclusions:-
The origin of algospeak is typically to avoid online censorship by sorting algorithms (Dictionary.com, 2024). This has led to the creation of common phrases such as “unalive”, “seggs”, and “corn”. Despite this origin, most people do not use algospeak in this way. The most common response for why respondents choose to use algospeak was to “make communication faster and more efficient”. Amongst the options provided, “Algorithm evasion to ensure content remains visible and reaches a wider audience” was the least selected option. The origins of words derived from algospeak appear to have minimal influence on their overall usage. Although they were initially created to circumvent online algorithms, these terms have evolved into accepted modes of communication among the general public.

According to the survey results, a majority of individuals frequently encounter internet slang during their online activities. Additionally, a majority of people even use the internet slang in their own communication. Despite this, only 36.9% of all questions were answered correctly. There was a wide variety of incorrect answers amongst the list of responses. This shows that there is a strong possibility for miscommunications and misinformation when algospeak is used. This raises the question of the morality of automated sorting algorithms. These automatic algorithms do filter potentially harmful content, but they may also censor and discriminate against minorities.

As seen in figure A19 in Appendix A, the average number of correct answers goes down as the respondents' age increased. The age group of 18-24 averaged over 50% correct answers, and the age group of 65+ averaged less than one correct answer per respondent. This stark difference raises an interesting point about effective communication. Modern algospeak is well received by the younger internet users, but it is escaping the older generations. This may lead to miscommunications and misunderstandings between generations. This contrast must be considered in any form of communication, especially online.

Limitations and Further Research:-

The predominance of responses from West Virginia residents may have an influence on the results, potentially diverging from the perspectives of the broader global population. This limitation in global reach was partly due to constraints in time and resources. A larger and more diverse sample size would improve the validity of the results.Additionally, expanding the research beyond English-speaking contexts would provide valuable insights into how algospeak is used in non-English-speaking communities and across different cultures.

Given the stark differences in comprehension of algospeak across age groups, a more focused investigation could examine how older generations interact with and perceive internet slang and algospeak. Research could explore how this gap impacts online communication, specifically in terms of misunderstanding and exclusion. Studies could also assess how educational programs or digital literacy initiatives can bridge this communication gap.

Considering that algospeak arose largely to bypass algorithmic censorship, there is a need for ethical research into the effects of these automated systems on free expression. How should social media companies balance the need to filter harmful content with the risk of over-censoring or unfairly targeting specific communities? Addressing this issue could provide a foundation for advocating more transparent and equitable moderation practices.

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Appendix A:

Figure A1:- Age of Respondents.

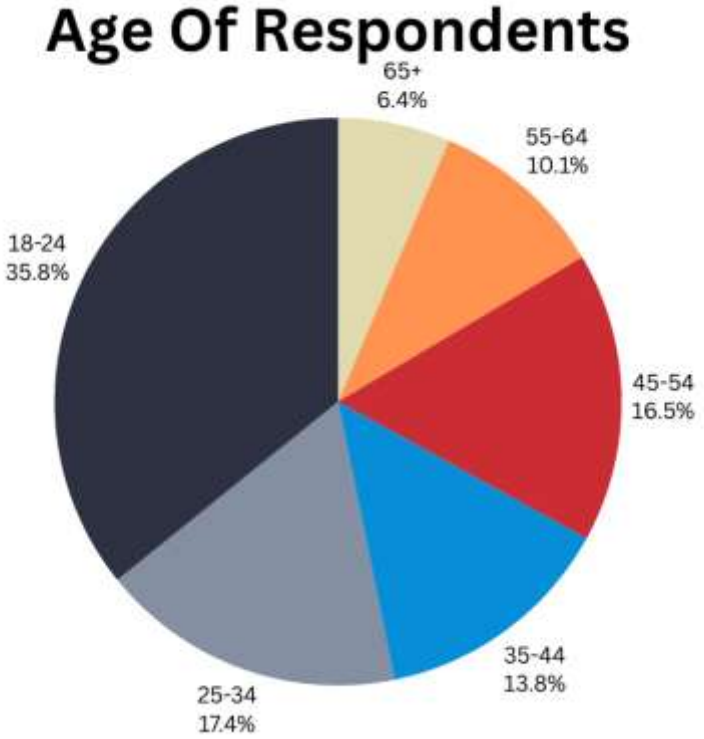

Figure A2:- Gender of Respondents.

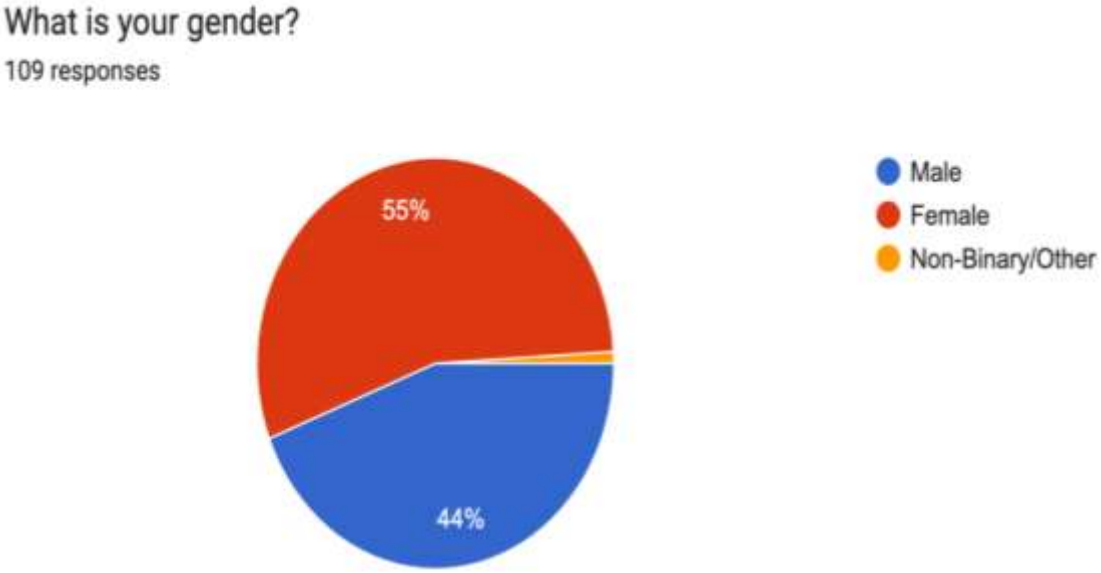

Figure A3:- Count of State of Residence (or Country if outside of U.S.).

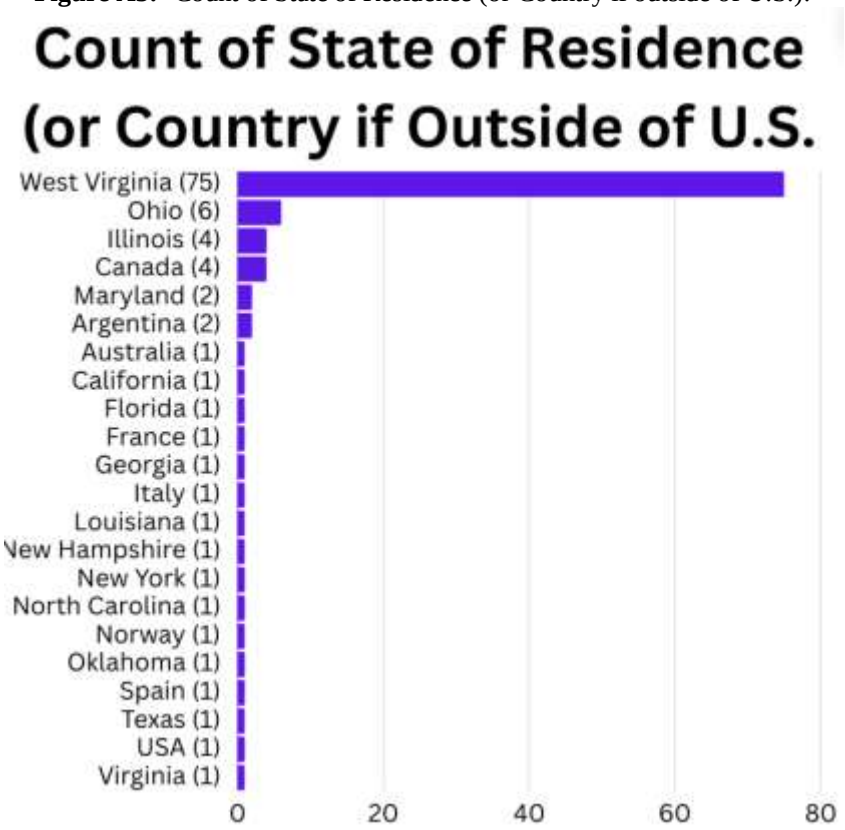

Figure A4:- Which social media platforms do respondents use?

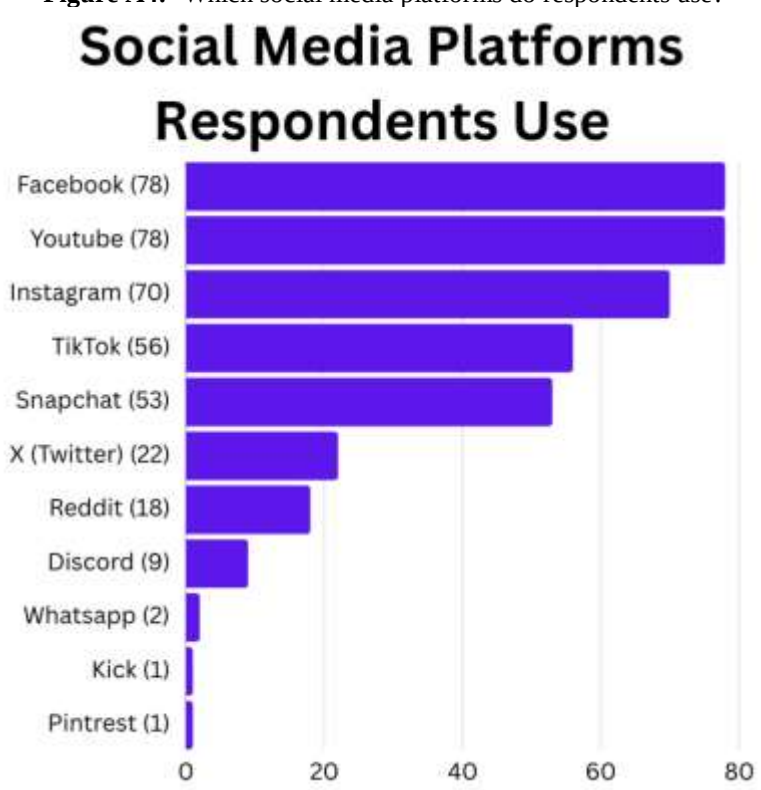

Figure A5:- How often do you encounter internet slang in your online interactions?

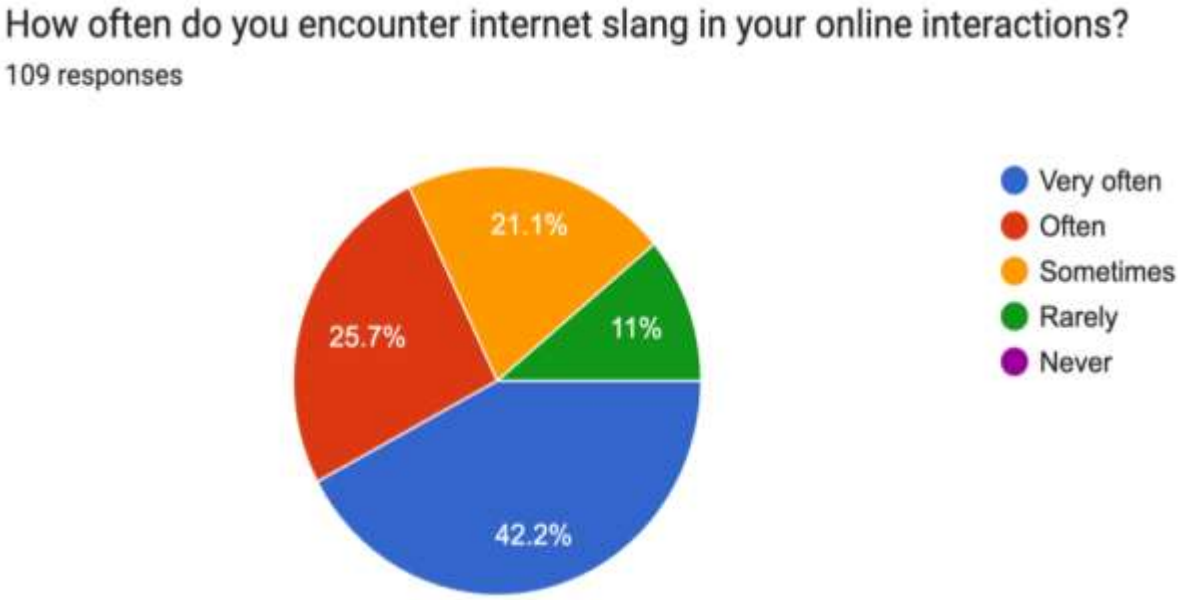

Figure A6:- How often do you use internet slang in your own communication.

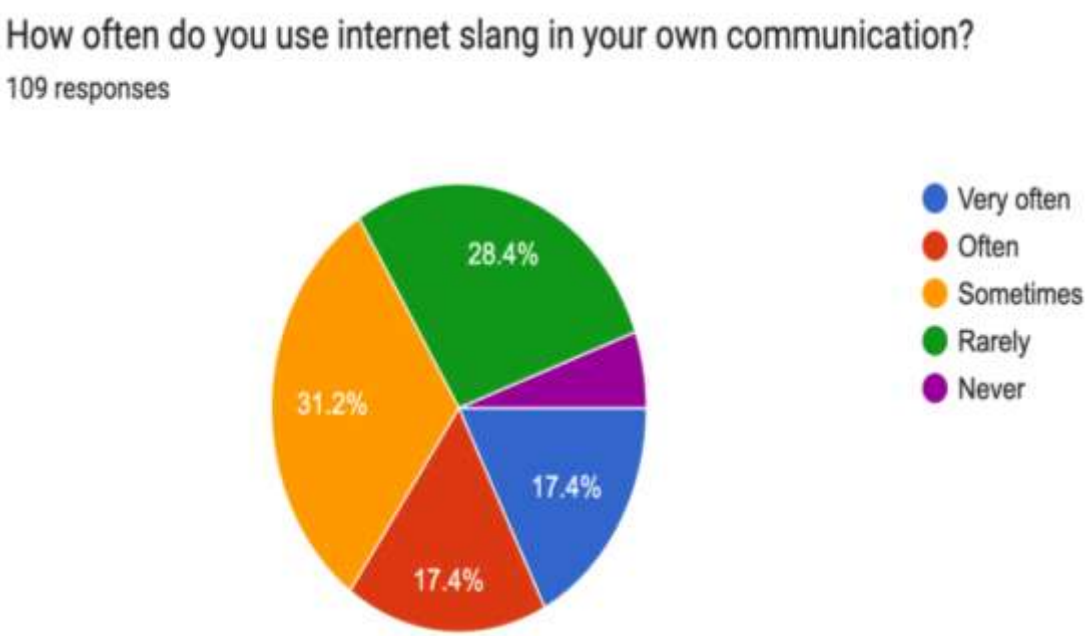

Figure A7:- If you do use internet slang, what is the primary reason for using it?

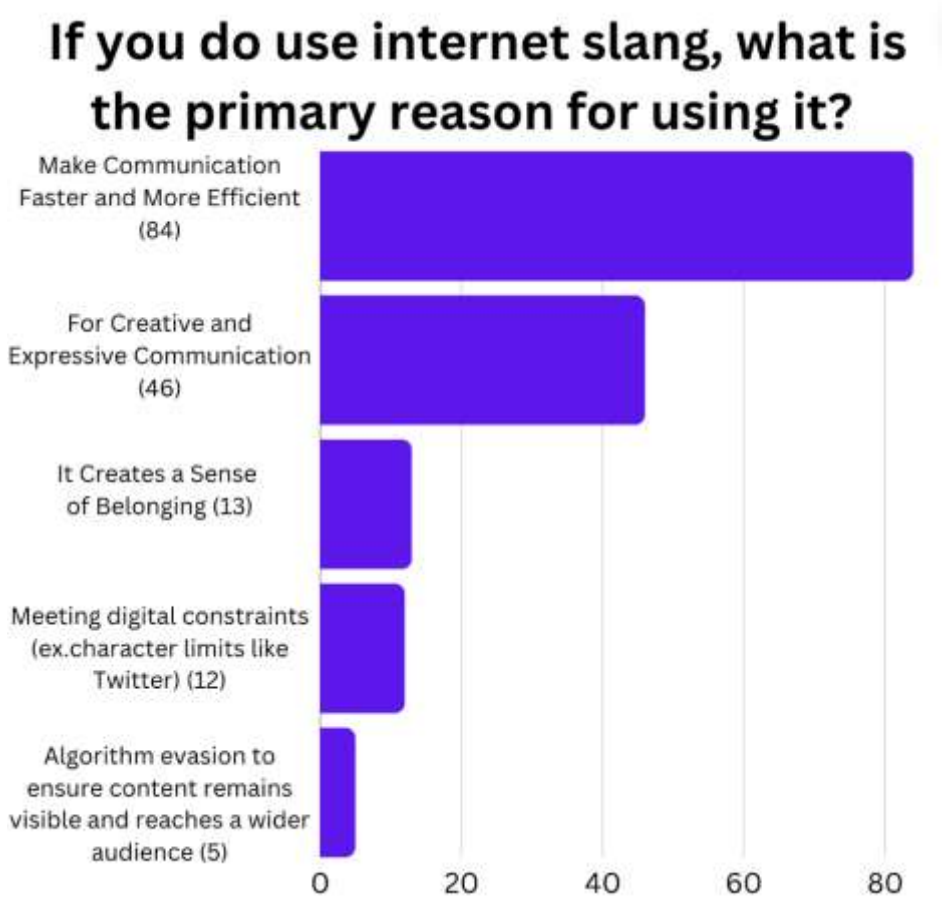

Figure A8:- Answers for "Seggs".

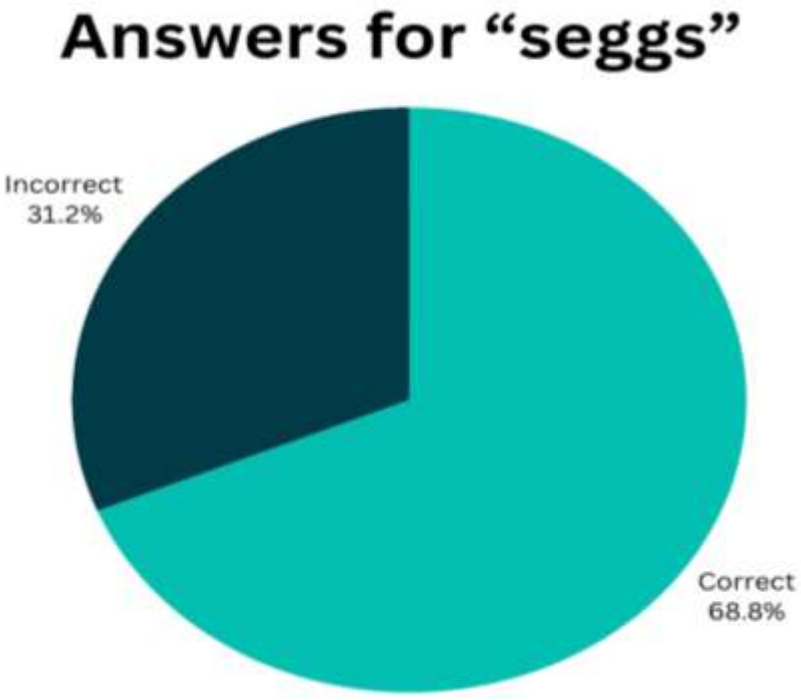

Figure A9:- Answers for “unalive”

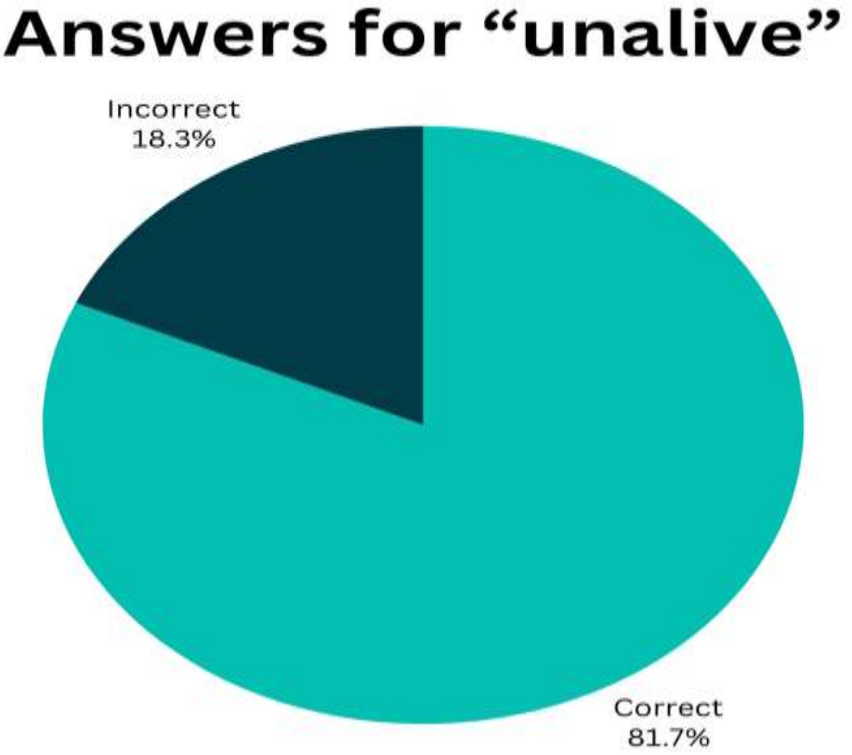

Figure A10:- Answers for “le dollar bean”.

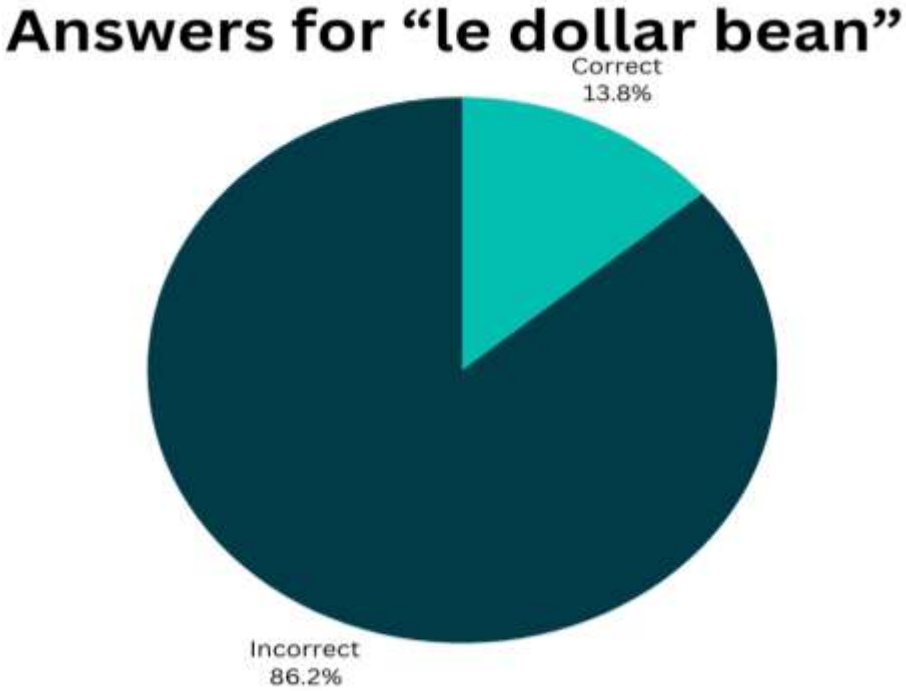

Figure A11:- Responses to "□□"

Figure A12:- Answers for "ouid".

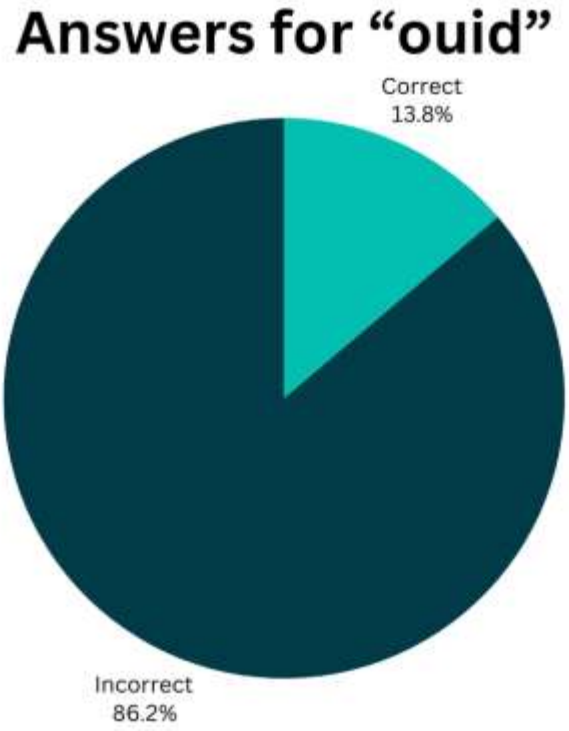

Figure A13:- Answers for "".

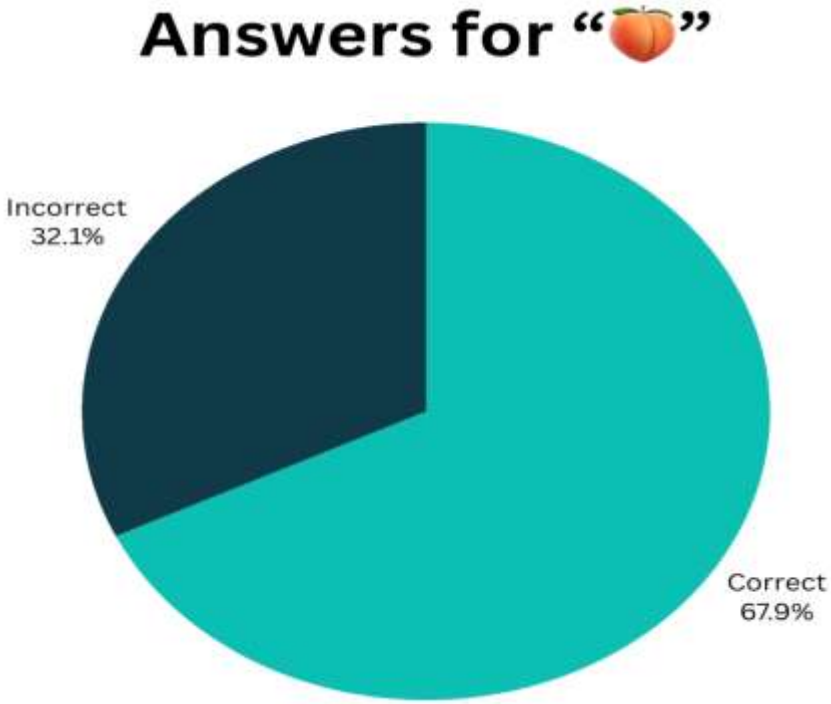

Figure A14:- Answers for "SH".

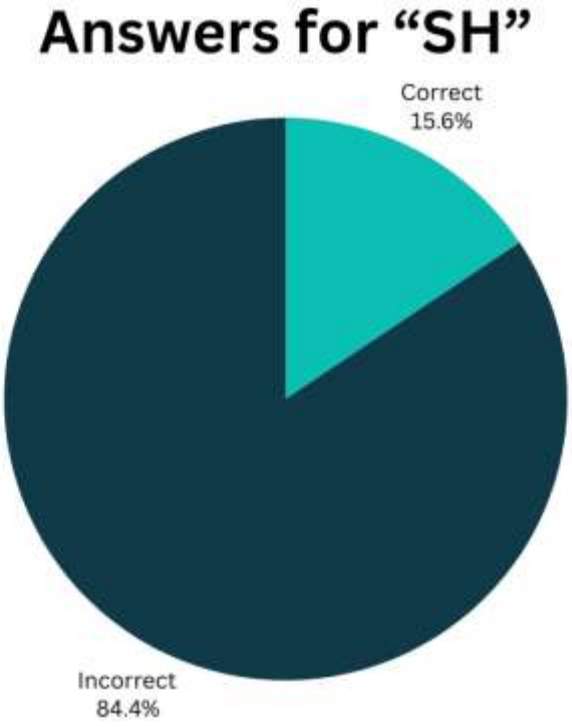

Figure A15:- Answers for “corn”.

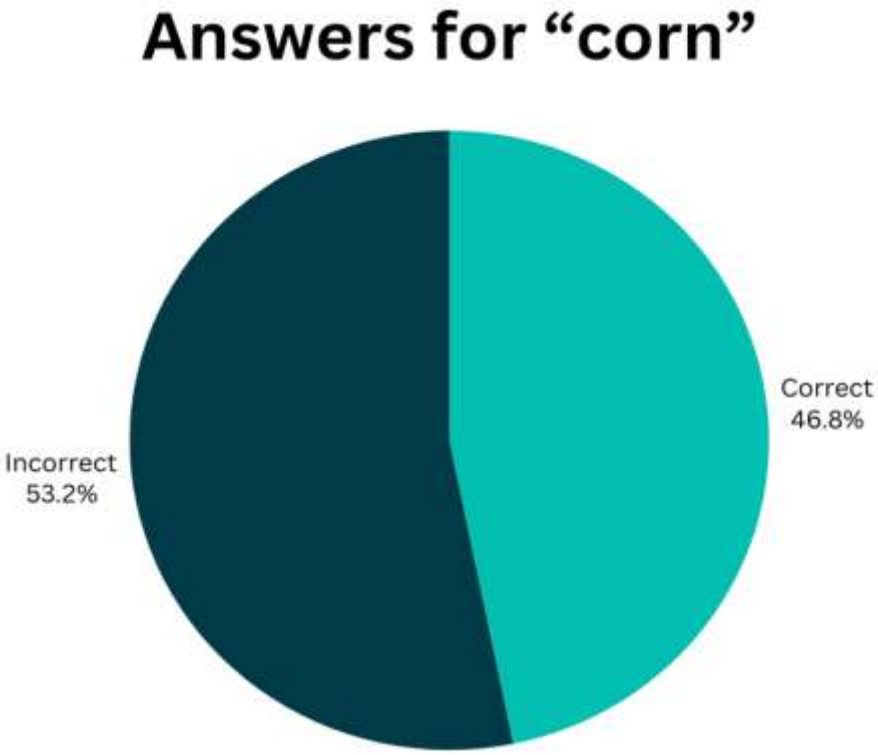

Figure A16:- Answers for “□”

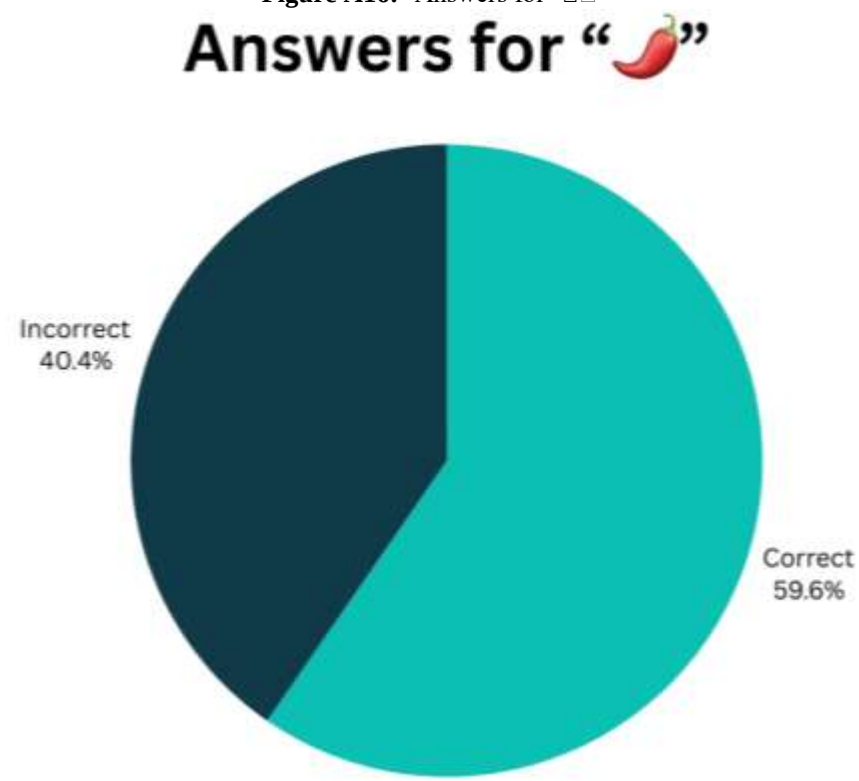

Figure A17:- Answers for "Kermit sewer slide".

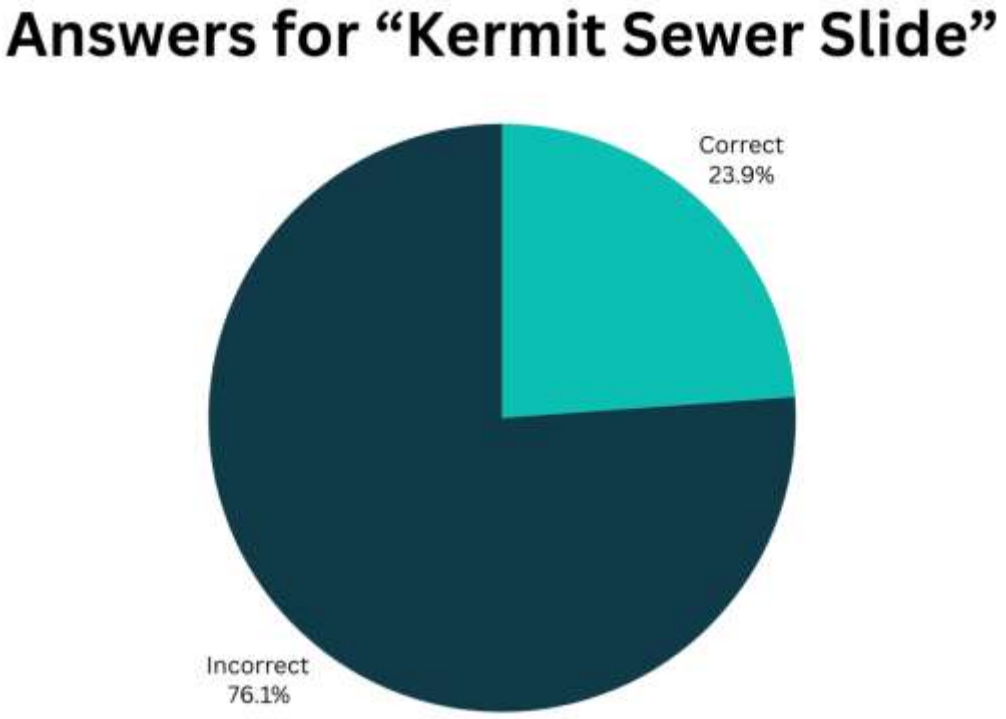

Figure A18:- Answers for "Accountant".

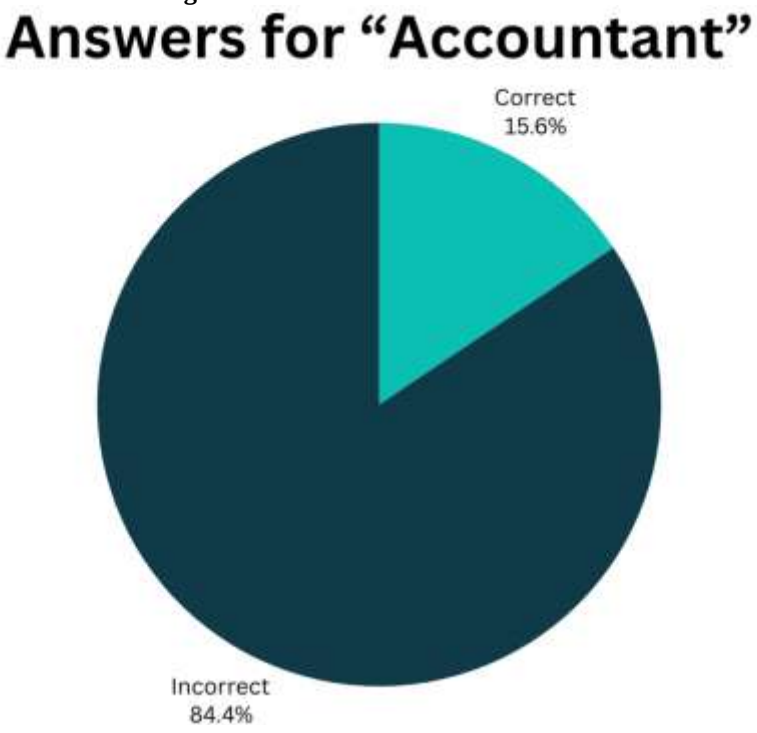

Figure A19:- Total of all answers.

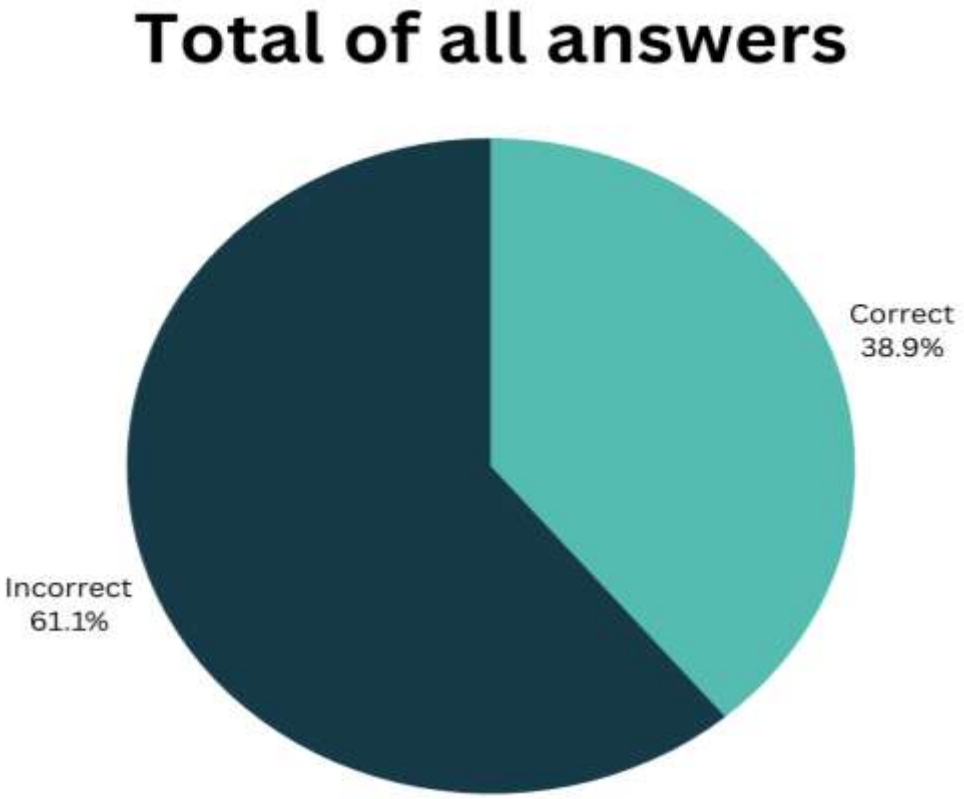

Figure A20:- Average Number of Correct Answers by Age Group.