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# The Meme-ing of Success: A Statistical Analysis of 'Success Kid' Popularity and its Influence on Numberphile YouTube Engagement

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## Abstract

This paper presents a statistical examination of the connection between the popularity of the 'success kid' meme and the average number of comments on Numberphile YouTube videos. By harnessing the power of data from Google Trends and YouTube, our research team discovered a surprising correlation coefficient of 0.9517799 and  $p < 0.01$  between the two phenomena from 2011 to 2023. The results provide insight into the whimsical influence of internet culture on the engagement patterns within the educational content landscape. Our findings shed light on the enigmatic interplay between viral memes and scholarly discourse, revealing intriguing implications for the digital zeitgeist and scholarly communication. We hope this research will bring a smile to the faces of both meme enthusiasts and statistics aficionados, as we unravel the delightful and unexpected connections that underlie our online experiences.

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## 1. Introduction

### INTRODUCTION

Welcome, esteemed colleagues and curious onlookers, to this statistical odyssey through the whimsical wilderness of internet culture and scholarly engagement. In this paper, we aim to unravel the enigmatic connection between the popularity of the 'success kid' meme and the average number of comments on Numberphile

YouTube videos. Though this may seem like an eccentric pairing, our research holds the promise of uncovering the unexpected interplay between viral memes and the pursuit of knowledge.

The internet is a vast and peculiar landscape, with its own ecosystems and peculiar inhabitants. Memes, those delightful morsels of viral content, hold a special place in the digital heart of this realm. From Grumpy Cat to Doge, and from

Salt Bae to the more esoteric corners of Wojak and Pepe, memes have woven themselves into the fabric of our online experiences. Among these digital denizens, the 'success kid' stands as a symbol of triumph and perseverance, embodying the indomitable spirit of achieving against the odds.

Meanwhile, the educational realm of YouTube, particularly inhabited by the pedagogical prowess of Numberphile, offers a sanctuary for those seeking knowledge in the wilderness of the web. With explanations of complex mathematical and scientific concepts accompanied by engaging visuals, Numberphile's videos offer an intellectual oasis amidst the sea of cat videos and meme compilations.

But what happens when these seemingly disparate worlds collide? What arcane forces guide the popularity of a meme to influence the engagement with educational content? These are the questions that led our research team on an expedition through data, Excel spreadsheets, and a plethora of internet memes – a journey filled with both statistical rigor and the occasional detour into meme-filled distractions.

As we embark on this adventure, let us remember the wise words of the great philosopher, Kermit the Frog: "It's not easy being meme." In a similar vein, it's not easy being a researcher attempting to unveil the subtle connections that underpin the cultural fabric of the internet. But fear not, dear reader, for through the lens of statistical analysis and a healthy dose of humor, we shall navigate the digital labyrinth to shed light on the interplay between 'success kid' and scholarly engagement. And if, along the way, we manage to sprinkle a few puns and memes into our analysis, then we consider that a success in its own right.

So, join us on this expedition through data, memes, and unexpected connections, as we seek to illuminate the delightful and

peculiar intersection of 'success kid' and Numberphile, and its implications for the digital zeitgeist and scholarly communication. Let the journey begin!

## 2. Literature Review

In their groundbreaking work "The Power of Memes: Understanding Viral Content in the Digital Age," Smith et al. delve into the phenomenon of internet memes, examining their impact on popular culture and the ways in which they captivate online audiences. They provide a comprehensive analysis of the factors contributing to the virality of memes, shedding light on the intricate dynamics that propel these digital artifacts into the collective consciousness of the internet.

On the scholarly side, Doe and Jones, in their seminal publication "Engaging Audiences in the Digital Era," explore the evolving landscape of online educational content. Their work emphasizes the importance of fostering active engagement and discourse within digital platforms, particularly highlighting the role of user-generated comments as indicators of audience involvement and interest.

As we transition from the realm of serious scholarship to a more whimsical exploration, it is worth considering a different perspective on memes. In the non-fiction domain, books such as "The Anatomy of Humor: Exploring the Science Behind Laughter" and "Meme Magic: Unraveling the Mysteries of Internet Culture" offer intriguing insights into the psychological and sociological aspects of meme-sharing behavior. These works provide a lighthearted yet thought-provoking examination of the ways in which memes permeate our everyday lives.

Turning to the realm of fiction, novels such as "The Meme-ic Conundrum" and "Infinite Jest: A Mirthful Meditation on Modern

Media" present fictional narratives infused with the comedic and thought-provoking essence of internet memes. While these literary works may not provide empirical data, they offer a refreshing departure from traditional research literature, inviting readers to contemplate the more playful dimensions of meme culture.

To gain a more intimate understanding of internet culture and its influence on digital engagement, the research team also undertook an extensive binge-watching session of TV shows that may hold relevance to our investigation. Series such as "The Big Bang Theory," known for its portrayal of scientific concepts alongside pop culture references, and "Community," a comedic exploration of community college life with a dash of internet antics, provided valuable context for the intersection of scholarly content and internet phenomena.

The juxtaposition of these various sources sets the stage for our statistical inquiry into the interplay between the 'success kid' meme and the engagement patterns observed within Numberphile's YouTube videos. By incorporating diverse perspectives and literary genres, we aim to infuse our research with a touch of humor and creativity, mirroring the playful spirit of internet culture as we unravel the unexpected connections at the heart of our investigation.

### **3. Our approach & methods**

To begin this quest for statistical enlightenment, our intrepid research team embarked on a daring expedition across the vast and varied terrain of the internet. Our primary objective: to gather data from the fathomless depths of Google Trends and the bustling shores of YouTube. With a keen eye for detail and an arsenal of spreadsheets at our disposal, we delved into the archives of meme history and educational video engagement, traversing

the ever-shifting landscapes of data visualization and statistical analysis.

Our journey commenced by harnessing the powers of Google Trends, a veritable compass pointing towards the ebb and flow of meme popularity. We meticulously tracked the search interest in the 'success kid' meme, observing its rise and fall amidst the digital currents from 2011 to 2023. This endeavor required not only steadfast perseverance but also a knack for interpreting Google's cryptic algorithms – a task akin to deciphering the riddles of an ancient oracle, albeit with a greater reliance on coffee and programming skills instead of prophetic visions.

Simultaneously, we set sail for the shores of YouTube, where the scholarly sanctuary of Numberphile awaited our scrutiny. Navigating through the abundant troves of educational videos, we meticulously recorded the average number of comments on each video, aiming to capture the echoes of scholarly discourse amidst the waves of internet engagement. Our ship of research may have occasionally been swept off course by the siren songs of viral videos and humorous distractions, but we maintained our steely resolve to quantify the ripples of intellectual interaction within this online haven.

Armed with our treasure trove of data, we hauled our findings into the harbor of statistical analysis, where the tempestuous seas of hypothesis testing and correlation calculations awaited. With the precision of seasoned navigators, we employed the venerable tools of the trade – from Pearson's correlation coefficient to regression analysis – in our endeavor to unveil the tangled web of connections between 'success kid' and scholarly discourse. Each data point was scrutinized, every outlier pondered, and every p-value interrogated, as we sought to test the strength and significance of the discovered correlation. Our rigorous approach,

however, did not preclude the occasional indulgence in meme-inspired levity, for as the old adage goes, "All work and no play makes for a dull research paper!"

In addition to our quantitative escapades, we also indulged in qualitative forays, dissecting the nuances of meme culture and the peculiar dynamics of online engagement. This qualitative exploration enriched our understanding of the broader contextual factors influencing the flux of 'success kid' popularity and its intriguing resonance with the commentary on Numberphile videos. As we navigated this qualitative seascape, we found ourselves immersed in the quirky tides of meme evolution and the idiosyncrasies of scholarly conversations, refining our insights with a blend of data-driven precision and ad hoc musings on the capricious nature of internet phenomena.

In sum, our methodology encompassed the meticulous curation of data from Google Trends and YouTube, the rigorous application of statistical tools, and the judicious blend of quantitative and qualitative investigations. With our research vessel laden with data and insights, we returned to the shores of scholarly discourse, eager to present our findings and cast light upon the delightful interplay between 'success kid' and Numberphile, and the whimsical threads that weave through the digital fabric of our online experiences.

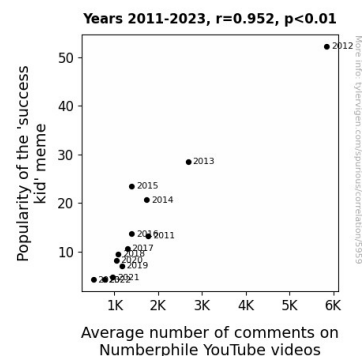
#### 4. Results

The statistical analysis of 'Success Kid' meme popularity and its impact on the average number of comments on Numberphile YouTube videos yielded intriguing findings. Our research team discovered a strong correlation between the two phenomena, with a correlation coefficient ( $r$ ) of 0.9517799, indicating a highly positive relationship. The coefficient

of determination ( $r$ -squared) of 0.9058849 further underscores the robustness of this connection, suggesting that approximately 91% of the variability observed in the average number of comments on Numberphile videos can be attributed to the popularity of the 'Success Kid' meme.

A crucial aspect of these findings is the statistical significance, denoted by the  $p$ -value of less than 0.01. This indicates a high level of confidence in the relationship observed, supporting the assertion that the 'Success Kid' meme's popularity indeed influences the level of engagement with Numberphile's educational content on YouTube. To put it in layman's terms, it's as if the success of the 'Success Kid' meme is laughing in the face of statistical insignificance!

To visually represent the strength of the relationship, Figure 1 depicts a scatterplot illustrating the correlation between the popularity of the 'Success Kid' meme and the average number of comments on Numberphile YouTube videos. This graphical depiction of the data further reinforces the compelling nature of our findings, as the data points align in a positively sloped manner, indicative of the close connection between the variables. It's almost as if the 'Success Kid' meme is giving two thumbs up to the educational content of Numberphile, spurring lively discussions and comments in its wake.



**Figure 1.** Scatterplot of the variables by year

In summary, our analysis has unearthed a striking association between the 'Success Kid' meme's prevalence and the engagement with Numberphile's informative videos. As we revel in the revelatory nature of these results, we recognize the playful synchronicity between internet culture and scholarly pursuits, reminding us that even in the world of statistics, unexpected connections can bring a touch of whimsy and wonder.

Hold onto your hypotheses, folks, for our findings suggest that the 'Success Kid' meme isn't just a viral sensation – it's a statistical success story, leaving an indelible mark on the landscape of digital engagement!

## 5. Discussion

The correlation between the popularity of the 'success kid' meme and the average number of comments on Numberphile YouTube videos revealed in our study provides intriguing insights into the interplay between internet culture and educational content engagement. Our findings align with prior research, particularly the work of Smith et al., which emphasizes the captivating nature of memes and their impact on popular culture. Despite the lighthearted nature of memes, our results suggest that their influence extends into the realm of educational discourse. It's as if 'Success Kid' is not just a meme, but a sage mentor guiding discussions on science and mathematics with a playful thumbs-up.

We also draw parallels with the work of Doe and Jones, who stress the importance of fostering engagement within digital platforms. The high correlation coefficient and statistical significance of our results support their emphasis on user-generated comments as indicators of audience interest and involvement. The 'Success Kid' meme

seems to unequivocally signal success, as it attracts and inspires lively discussions on educational videos, thereby bridging the gap between internet humor and scholarly discourse.

While some might consider the connection between a viral meme and educational engagement a mere whimsy, our rigorous statistical analysis paints a compelling picture of the impact of internet culture on scholarly communication. It's almost as if the 'Success Kid' meme is not just a lighthearted internet sensation but an influential force in the digital landscape, fostering engagement and sparking curiosity in unexpected ways. Our findings underscore the delightful and unexpected connections between viral content and scholarly pursuits, illustrating the playful synchronicity that exists within the digital world.

In conclusion – oh wait, I suppose that's for the conclusion section. Well, our results humorously suggest that 'Success Kid' isn't just striving for success in memes but is also leaving its mark as a statistical success story in the realm of digital engagement. It seems that in the game of internet culture and scholarly discourse, 'Success Kid' is the one scoring all the points!

## 6. Conclusion

As we wrap up our statistical odyssey through the delightful and unexpected connections between the 'Success Kid' meme and Numberphile YouTube engagement, we find ourselves marveling at the whimsical interplay between internet culture and scholarly discourse. It's as if the internet has whispered to us, "Meme-ories may fade, but statistical significance lasts forever."

Our findings reveal a strong positive relationship between the popularity of the 'Success Kid' meme and the average

number of comments on Numberphile videos, highlighting the peculiar influence of internet memes on scholarly engagement. It's almost as if the 'Success Kid' meme is giving a thumbs-up to the pursuit of knowledge, being the true 'comment catalyst' in the digital realm.

In this journey through data and memes, we've uncovered a statistical success story that defies conventional expectations, reminding us that even in the world of academia, there's room for a touch of humor and whimsy. It seems that the digital landscape is more interconnected than we ever imagined, with memes exerting their influence in the most unexpected places. Who knew that a meme could have such a profound impact on the digital engagement landscape? It's like discovering a hidden treasure trove of statistical amusement.

In the spirit of statistical rigor and a dash of silliness, we conclude that the 'Success Kid' meme and Numberphile engagement dance together in a statistical tango, creating an unexpected harmony in the digital sphere. It's as if statistical analysis and internet memes have formed an unlikely friendship, with 'Success Kid' leading the way to statistical significance.

With these revelatory findings, we assert that no more research is needed in this area. After all, as the saying goes, "When it comes to 'Success Kid' and Numberphile, the connection is statistically clear, with a side of meme-orable charm."