

# The Impact of TikTok: Investigating the Effect of TikTok on High School Student's Academic Performance

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## ABSTRACT

This study investigates the impact of the app TikTok on High School students, with a focus on student's academic performance. Conducted through a survey method, these analyses on high school students study the factors that influence their abilities to perform well in school, and are vital to understanding the future of the next generation's education. Quantitative methods and data analysis revealed the difference in methods of studying between underperforming and high performing students showed the difference in study approaches as well as their approach to social media. Other factors such as concerns regarding the apps impact on student's self-esteem and content that can negatively impact a person can reflect on their academic performance. The study concluded by offering insight on the need for more focus on helping students transcend the academic rank and provide them with the tools needed to succeed.

## Introduction

It is no secret that the app TikTok is under controversy because of its effect on users attention spans as well as other concerns regarding content. But to what extent are these components transferring to people of impressionable ages, such as high school students, and how are they impacting them in terms of their academic performance? Is it positive, negative or is there no effect? Over the years there has been significant evidence pointing towards the app harming students more than helping them. Despite arguments stating TikTok can provide helpful tips and advice to succeed academically, data shows that the negatives outweigh the positives.

## Literature Review

A multitude of studies have been conducted on how social media apps, such as TikTok, may hold responsibility for the inflection of students' academic performance. A great quantity of this research focuses on how TikTok affects attention span, and therefore carries into academics, and how content such as hyperproductivity videos might have an effect on approaches to studying and can change perspectives on the way one views academics. However, are these factors truly as influential as they are commonly believed? And if so, do they affect students with a lower GPA more significantly than those with a higher GPA? Do these influences manifest in consistent patterns, either positively or negatively, within high school students? Studies show 67% of TikTok users(Pew Research Center) are teens in high school, which means that they are the age group that is experiencing the most impact on the effects of TikTok. These questions led to the research question, "To what extent are these factors affecting the academic performance of high school students and are they affecting students who are struggling more academically or is it affecting students no matter their rank?" In this research, two main factors were studied: The effect the app has on users' attention, and the effect of hyperproductivity videos, which are videos that are meant to motivate consumers into doing school work or

to be productive. These videos often have a motivational air and aesthetically pleasing audio and visual that draw the user in.

## Attention Span

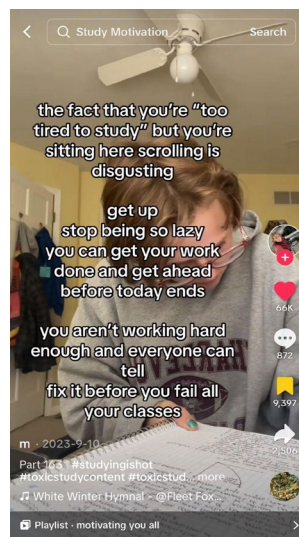
Being busy students and having to handle hours of homework and pressure to succeed, a lot of teens look to stress relievers to distract them from their busy lives, and many students turn to apps like TikTok (Homework + TikTok is not efficient) as a distraction. The paper “TikTok and the death of the attention span” (Zaveri) explores the concern of it becoming harder to put your phone down, stop procrastinating, and complete necessary work. She explains the overpowering desire to drop whatever you are working on and constantly check on social media apps like Instagram for “just a second” (Zaveri). Half an hour and a hundred reels later, that desire has been replaced by overwhelming shame. The addictive nature of these apps sucks users in, as the human brain craves this instant dopamine hit, causing the attention span to decrease more overtime (Zaveri). The author continues, stating that a short-form media type satisfies shortened attention spans, and worsens it for other, more meaningful activities. The American Physiological Association states the average attention span is not longer than 47 seconds. Zaveri expresses, “nearly 50% of users surveyed by TikTok said that videos longer than a minute long were ‘stressful’”. With new features like being able to put videos at 2x speed, or having two videos playing at once in order for the user to be able to watch a video more than 30 seconds only exacerbate the problem. According to the Pew Research Center, 67% of TikTok users are teens in high school, which means that they are the unfortunate and vulnerable age group to the harmful effects of TikTok. The center conducted a survey in which data showed that 31% of teens said they lost focus in class because they were checking their phone and 49% used technology for reasons that had nothing to do with the content of the class. The data shows how addictive the app can become with almost half of students in class not being able to put their phones down, further elaborates the need to have discussions on how much social media as a whole is affecting young users, especially students. The paper “What Makes TikTok so Addictive?: An Analysis of the Mechanisms Underlying the World’s Latest Social Media Craze” is investigating studies that prove “the impact of social media addiction on stress among employees of 13 companies in Thailand found that those with a higher degree of addiction appear to have a lower capacity for mindfulness (i.e. the ability to be fully engaged with the present moment)”. This exhibition and study showed that there are numerous effects when delving into the conversation of attention spans as well as how this continuously affects users negatively over time.

## Hyper productivity Videos

While social media apps like TikTok have evidence of decreasing the attention span of users, many people argue that the actual videos that you watch have more of an effect on users than most think. Many videos on TikTok depict a glamorous lifestyle of perfect people with disciplined schedules. These videos can often be seen as counterproductive. Videos that glorify studying for hours and create the most aesthetically pleasing videos are intended to motivate, but might end up having adverse effects. Productivity trends on the app, like the “that girl” trend that emphasized studying for hours on end with no breaks, striving for only perfection and nothing less, creating a flawless person the trend idealizes. The article “Viral TikTok trend promoting productivity may be doing more harm than good, students and faculty say” by Rachel Patel from the Columbia Chronicle puts this into perspective. Patel says, “Because I go through a lot more mental health issues, every time I tried to be #thatgirl, it just wouldn’t mesh with how I was doing mentally”. Based off the comments on a TikTok video, the top two most liked comments on a “studytok” post that exhibit a series of pictures with motivational sound playing meant to inspire the users were surprisingly negative, with (user #1) stating “I’m a high achiever everything is falling apart. I don’t know where to start anymore, no motivation ...now I give up” (TikTok user). Another user, (user #2) on the same video claimed “it’s so draining though, all the studying and time, then you end up not getting the best A+++ ... you feel like it was all for nothing” (TikTok user). These videos promote unrealistic expectations and can distract you from proven study methods that do not cause burn out.

The article “How does TikTok’s viral productivity trend affect us” (anonymous) reveals, “TikTokers are split into two camps when it comes to these types of videos. Users that have embraced these routines argue that they’re a source of inspiration and a way to get [work]... done. But others have criticized this excessive productivity as leading to mental and physical exhaustion.”

Others argue that studytok builds a sense of community. Research done shows that there is a positive aspect within the realm of the studytok community. The paper Students are turning to TikTok for homework help. Is that a bad thing (Langreo) states “We like short, and sometimes that works when it comes to homework. Kids might just want to know if they need a comma or how to cite a source.” The studytok community is extremely diverse in its content. Videos range from teachers giving advice to aesthetically pleasing videos that are motivational. While there is a positive angle, research being conducted now focuses more on the aesthetically pleasing videos, since those are the videos that get the most amount of attraction from users and are more commonly seen than videos with actual information about topics’ students are learning. When typing in “Studytok” or videos like “motivational study videos”, actual study strategies and techniques are rarer to find than specific searches curated to what the student is looking for academically. When students do search for videos related to specific topics they are interested in, there aren’t as many helpful videos along with there being less content within those videos.



**Figure 1.** A TikTok of a student promoting toxic behavior through a hyper productivity video

This photo is an example of a hyperproductivity video, and has over 66k likes. On the screen is written:he “the fact that you’re ‘too tired to study’ but you’re sitting here scrolling is disgusting. Get up and stop being so lazy. You can get your work done and get ahead before today ends. You aren’t working hard enough and everyone can tell. Fix it before you fail all your classes”. The audio and visual aspects of this video are motivational as well as the captions and hashtags, but it lacks actual study tips. The psychological strategy used in this video is called “toxic motivation”. Toxic motivation is using tactics like reverse psychology or being motivated by outcomes rather than the process. The video promotes unhealthy study habits and pressurizes viewers that failure is not an option. Analyzing the comments of these videos to see if students who commented find them helpful. Positive comments include: “feelings hurt but motivation up” (user #3) and “Needed this right now on it” (user #4). All of these comments show how people found them positive, while on the other hand, “...it’s getting bad when aggressive study motivation doesn’t motivate you to study” (user #5) and “I have all A’s and a pretty high GPA, honors society all of that, I deserve to rest sometimes” (user #6). These users found the video tasteless and felt that it was aggressive. Showing the two

contrasting sides to the studytok community, as well as how each side has a positive aspect and a negative side, depending on the perspective users choose to look at the video from.

These two factors are attention span and productivity videos. Working together shows a bigger picture of what people are trying to convey when saying social media can be harmful to you while trying to be productive. With needing to take more breaks and seeing people on social media living their best lives looking extremely put together can be portrayed as counterproductive to students who are already under pressure. Without being able to focus, students tend to turn to these videos that end up doing more harm than good. While other researchers argue that these factors have beneficial effects, the majority of research says these factors are more negative than positive.

## Gap in research

Hyperproductivity videos specifically shed light on high achieving students. The researcher wanted to decipher if students who are high achieving students implement these strategies shown in hyperproductivity videos. The researcher also wanted to figure out if these videos isolate students who do not have high a GPA, and who feel disconnected from these videos, inadvertently make them feel more unincluded and burnt out, or if they turn to these videos as a way of motivation. Are students who are high achieving versus lower ranked students facing the same effects of these factors and challenges discussed? Research previously done addresses how hyperproductivity videos make students feel, but they do not discuss the difference in students with high a GPA verse lower GPAs view these videos and how it affects both sides differently, along with the factor of the app effecting your attention span, does not discourse the overall effect of the app on student's academics. Addressing this Gap will give assistance to not just lower ranked students but all students because it helps figure out exactly what things block study motivation, and help add to the academic conversation.

## Methodology

The researcher incorporated a survey method to figure out whether the two factors, attention span and hyperproductivity videos affect students. By surveying high school students and looking at their perspective of the issue is pivotal to understanding the severity of these two factors on students.

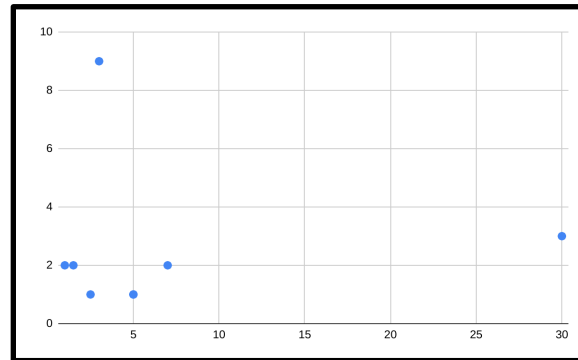
The survey questions:

- **The students grade**
- **The students age**
- **The amount of hours the student spends on TikTok**
- **What the student's grades are like**
- **The students GPA**
- **If the students feels as if their attention span has gone down in the past year**
- **If the students find hyperproductivity videos motivating and realistic or if the videos make them feel worse.**
- **The kind of classes the student is enrolled in**
- **If the students spend time on TikTok to avoid doing their homework**

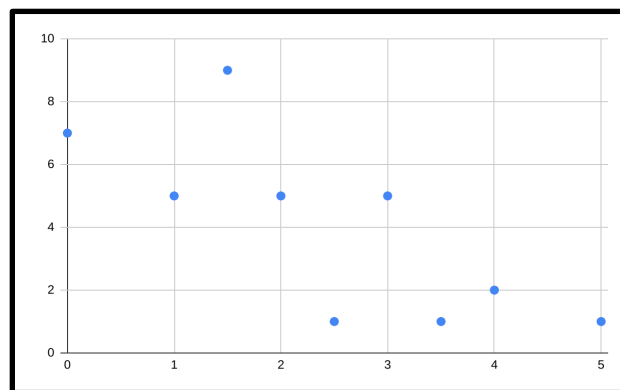
The researcher will then divide all the surveyors with GPAs higher than 4.0 and GPAs with a 3.9 and below to figure out the differences, if at all. By creating this divide, the researcher will clearly be able to see if these factors affect students no matter your academic ability, or if their academic ability makes them more susceptible to these factors. These factors affect people more who have lower GPAs than the research that has already done. This survey may also answer whether students who have different GPA ranges respond to these factors differently but are being affected negatively or in a more positive light. This data will provide a deeper conversation within the overall understanding of social media and its effects on users.

## Findings

The researcher discerned four of the most crucial questions from the survey including the number of hours students spent on Tiktok, the percentage of students who procrastinate doing their work by going the app, if students believed their attention spans decreased within the past year, and if they found hyperproductivity videos motivating and realistic. The researcher created two data sets setting apart the students who had a GPA of 3.9 and below verse a GPA of 4.0 and above. The first question was the number of hours students spent on Tiktok. Figure one and Figure two show the data table of the two contrasting sides.

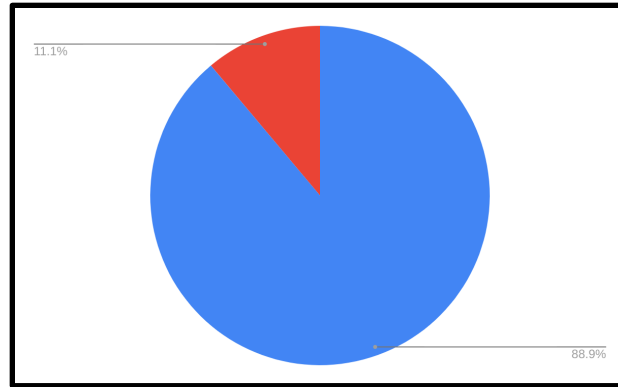


**Figure 2:** GPA of 3.9 and below. The number of hours ranged from seven hours to 30 minutes a day.

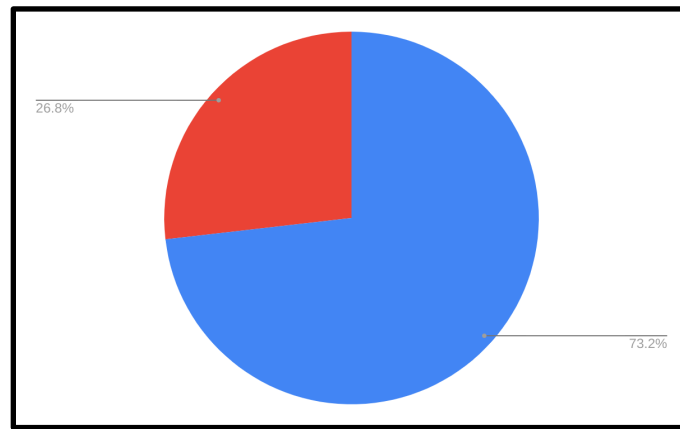


**Figure 3:** GPA 4.0 and above. Their hours range from 5 hours a day to zero minutes a day.

The two sets of data show us that there is in fact a difference between the two sides. The higher range had a difference of two hours while the lower range had a thirty minute difference. The differences however are not as colossal. Both sides spend low minutes to high hours and while students who had higher a GPA had lower hours the ranges are still significant proving that students with high a GPA are not off social media like hyperproductivity videos are promoting. This also helps fill in our gap showing that students no matter their GPA have similar hours.

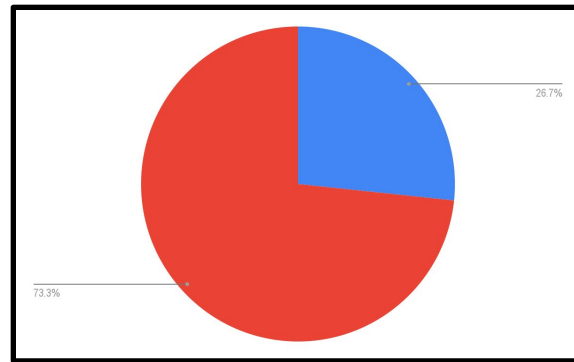


**Figure 4:** GPA of 3.9 and below. 88.9% of the students procrastinate doing their homework by using the app, while 11.1% of the students do not procrastinate doing their homework by using the app.

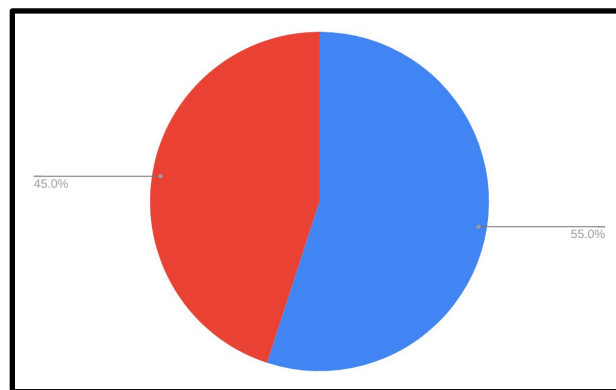


**Figure 5:** GPA of 4.0 and above. 73.2% of the students procrastinate doing their work by using the app, while 26.8% of students did not procrastinate doing their work by going on the app.

Both students with high and Low GPAs majorly procrastinate doing their work. In hyperproductivity videos, they paint a picture that high achieving students do not procrastinate and work for hours on end without social media breaks, when the data shown above proves that not only do both types of students spend time procrastinating doing their work but majority of the students procrastinate doing their work by going on the app.

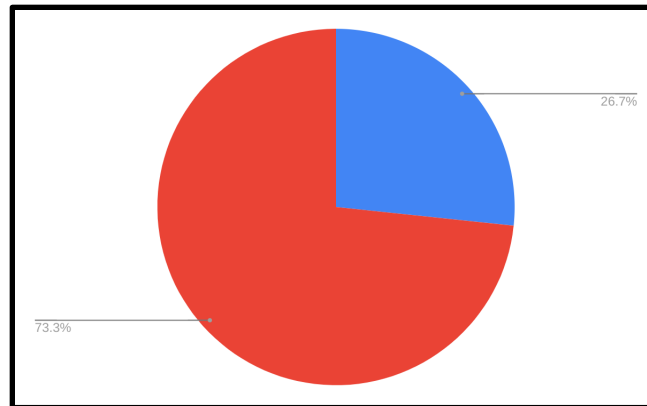


**Figure 6:** 73% of students with GPAs of 3.9 and below believe their attention spans have gone down in the past year, while 26.7% of people with GPAs of 3.9 and below believe their attention span has not been affected.

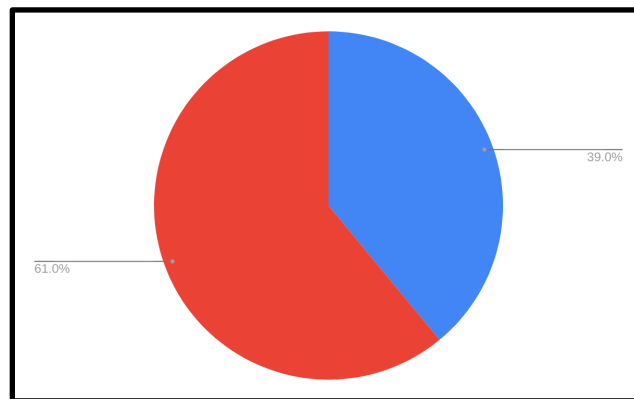


**Figure 7:** 55% of people with a GPA 4.0 and above believed that their attention span has gone down in the past year, while 45% of students with a GPA of 4.0 and above claimed their attention span has either stayed consistent or has improved in the past year.

There is a noticeable difference that comes from the data relating to the attention spans, particularly a difference between students with different GPAs. While both groups recognize changes in the student's attention spans, there's a noticeable trend among high GPA students reporting more consistent attention spans. This finding underscores the notion that academic achievement might be linked to maintaining a stable focus over time. Moreover, it's intriguing to note that this trend appears to affect individuals with a lower GPA more significantly, suggesting a potential correlation between attention span fluctuations and academic performance. This insight sheds light on the nuanced interplay between academic success and cognitive function, warranting further investigation into the factors influencing attention regulation among students of varying academic standings.



**Figure 8:** This pie chart shows the number of students who had a GPA of 3.9 and below. 73.3% of these students believed that hyperproductivity videos were unrealistic and were not motivating. 26.7% of students believed that hyperproductivity videos were realistic and motivational.



**Figure 9:** This Pie chart represents the surveyors with a GPA of 4.0 and above. 61% of students believed that TikTok videos showing hyperproductivity were unrealistic while 39% of students who participated said the videos were motivational and realistic.

Both sides agree that hyperproductivity videos were unmotivating and unrealistic. Students with 4.0 and above did not resonate with the contents of the videos and agreed that they were unhelpful. Though some students on both sides found the videos motivating, almost all students found the videos completely unrealistic. Regardless of academic standing both sides agreed that the videos lacked practicality, and were not helpful in their actual academics.

## Interpretations and Results

The analysis of the results allows the researcher to interpret this data to fill in the gap. In all of the data sets whether they were of students with low or high GPAs the overall outcome of the survey showed that both sides of the spectrum were affected by the negative effects of the app. It also allows the researcher to create implications from the data produced.

Hyperproductivity videos that put a spotlight on high achieving students creates an interpretation that these students are extremely productive, and are essentially perfect. Social media has created this portrayal that impacts both low and high GPA students. It affects High GPA students because it puts a certain amount of pressure to live up

to these expectations. In the survey the researcher conducted while examining the answers of students of a high GPA, under the question on whether they find hyperproductivity videos motivating and realistic a student said “They make me feel worse especially if I’m in a depressive episode because it’s never fun to be reminded that you’re capable of doing something normally but can’t under your circumstances.” This response highlights how students with a higher GPA are affected by these videos. This data helps the researcher address the gap because it shows how it affects both sides of students, and what blocks study motivation, specifically pertaining to hyperproductivity videos.

Students with a Lower GPA are also affected by hyperproductivity videos because they feel the isolation of their struggles not being presented in these videos. Students who see these videos with a lower GPA were also found to find them motivating but unrealistic. One student when asked a question about hyperproductivity videos stated “I think they help show me how to be more productive but I don’t think there very realistic” Another student who responded to the survey said “Yes, these videos do make me feel worse they make me want to go home and do my homework right away which feels impossible.” The responses show how students struggling end up feeling worse than they began with, even though these videos are motivating, the motivation is short term, and are not actually helpful in the long run. The two responses also allow the researcher to see the contrasting differences between the struggles of students with a high and low GPA. Students with a high GPA do not resonate with the hyperproductivity videos due to the pressure it adds onto students, and students with a low GPA do not resonate with the hyperproductivity videos due to them not being represented and shown false information about what it takes to succeed.

The attention span being the second factor in how TikTok affects your attention span adds to the conversation in answering the gap being filled. Students who had a higher GPA in majority felt as if their attention span was lower in the past year while there was only a 5% difference in those who thought their attention span had gone down versus those who stayed consistent or increased. There was a significant difference in those of students with a low GPA, only 26% of students believed that their attention span stayed either consistent or improved. This shows that students with lower a GPA are more susceptible to scrolling on TikTok, avoiding doing tasks, and with students who had a lower GPA spending more time on the app than students who had a higher GPA proves that the attention span factor affects lower GPA students more than Higher GPA students. Both are affected and that fact should not go unrecognized, but students with a lower GPA have been proven with support from data obtained from the survey, that they are more subject to the effect of TikTok on your. attention span

This information helps add to more discussion and helps the researcher interpret the data in a meaningful and more qualitative way rather than a quantitative manner. The implications of the data collected help create an avenue for further research. With findings manufactured, other research that tries to figure out differences and similarities between high and low GPA students, as well as how they are impacted from the app can be used.

## Conclusion

In conclusion, hyper productivity videos, and TikTok’s effect on users attention spans does affect the academic performance of high school students who have high and low GPAs. Both sides carry through the two factors but in different ways. This reveals a critical need for a more inclusive understanding. While existing research has shed light on the influence of these factors on attention spans and academic outcomes, there remains a significant gap in understanding how they affect students who are struggling academically versus high achievers. Through data collected, and research done, fills this gap, It shows how the two sides had more similarities than social media has portrayed in hyper productivity videos, and TikTok’s effect on the attention span of users.

By delving deeper into this inquiry, we uncovered whether these influences disproportionately affected students who are already facing academic challenges or if they transcend academic rank. This nuanced examination is vital for developing more targeted interventions and support systems that address the diverse needs of all students. This also adds to the conversation of having access to more resources for students to succeed more academically. Ultimately, fostering a more inclusive dialogue that includes all students no matter their academic level, and research approach can pave the way for a more equitable and supportive educational environment for high school students.

## Limitations

Limitations encountered in the research done primarily involved the researchers' survey and methodology sections. A multitude of questions asked panned out to not be as supportive as anticipated. Questions that were useful to the researcher could have been worded differently to provide a more organized way of conducting the data collection to streamline the data collection process. Another limitation the researcher faced was that there were a lot more students who had a GPA of 4.0 and above than 3.9 and below making the data collection uneven in some areas. A fair amount of surveyors also left questions essential in answering the gap that were either left unanswered or were very vague to the point in which they were not useful to the final research. The limitations undermine the importance of the survey and the need for participation from surveyors, to confirm reliability and validity in the research.

## Future directions and Implications

Future directions in the research conducted can be used. Further research in areas such as social media in academics, To research on the complexities of the app TikTok. Data collected can be used to showcase how students vary in terms of their academic rank and how social media affects their studies. It can be added to future research to further other researchers points of view to supplement and enhance the research documented.

Research in terms of proving how students struggle more in academics and what factors overall affect them, is where research conducted here lends a helping hand to that research. It also can add to the conversation of if TikTok is an app that is more beneficial to users or is more harmful to users. Conversations pertaining to how TikTok affects users attention spans also can be more analyzed with the findings of the researcher. With TikTok being under conversation with the app possibly being banned in the U.S the data collected adds to the discussion of whether or not the app should be banned especially with the majority of TikToks audience being high school students.

## Implications that concern my research included

1. **Understanding the Impact:** By investigating how hyperproductivity videos affect high GPA students versus lower GPA students sheds light on potential disparities in their study habits, motivation, and overall academic performance. This insight can inform educators and policymakers on specific support strategies.
2. **Addressing Disconnection and Burnout:** By exploring whether these videos inadvertently exacerbate feelings of disconnection and burnout among students with lower GPAs, the research can guide the creation of more inclusive and supportive academic environments. Understanding whether these students turn to such videos for motivation or feel further marginalized can inform interventions.
3. **Examining App Influence on Attention Span:** The examination of how the app itself affects attention spans adds depth to the understanding of technology's impact on academic performance. This can inform discussions on digital literacy and responsible technology use among students, educators, and parents.
4. **Enhancing Academic Conversation:** Bridging the gap in research by considering the differential effects of hyperproductivity videos on students with varying GPAs contributes to a more comprehensive academic discourse. It enriches discussions on study motivation, student well-being, and academic success factors.

## Acknowledgments

I would like to Thank my peers and my advisor Jennifer Orlinski who guided me through this journey, and greatly assisted me in completing this essay, as well as encouraging me to continue striving to be the best version of myself.

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