

The Impact of Social Media on the Attention Span of Chinese Highschool Students

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Abstract:

This essay discusses and examines the impact of social media on the attention span of Chinese high school students, which is a growing and unignorable concern in the digital age. As platforms like WeChat, Douyin (TikTok), and Weibo become increasingly used in Chinese high school students' daily lives, they spend lots of their leisure time engaging with fast-paced and attention-grabbing content on social media. This essay explores how these contents are decreasing students' ability to focus on work and tasks. However, according to the data collected, it also acknowledges the complexities of this issue, noting that not all students are equally affected by social media to the same extent. In this case, giving out advice and suggestions, such as decreasing time spent on social media, using attention training, and also developing better study and work habits. These solutions will help students manipulate and control the negative effects of social media on their attention span, and therefore increase their study and working efficiency.

Keywords: Social Media; Attention Span; Chinese High School Students; Study Efficiency

1. Introduction

Social media is an interactive technology that rises with the development of the internet. Users can create, and share content on all topics and make social interactions through internet platforms such as Instagram, TikTok, and Facebook. They are all called social media. It is different from old media, such as newspapers or radio, in many ways. As it's an entertaining activity with almost no restrictions and limitations on time, place, and money. Social media not only provides fun and amusement, but also helps people find partners or friends with the same inter-

ests, share their daily lives, and obtain valuable and varied information.

The origin of social media can be traced back to the 1990s. With some early online communities and communication websites, the concept of social media gradually came into people's sight. After entering the 21st century, lots of platforms appeared, including Facebook (2004), Twitter (2006), Instagram (2010), and so on. Social media started to occupy most of people's leisure time. By 2023, the number of people using social media will reach 4.76 billion, which is approximately 59% of the global population

Additionally, the mental health condition of teenagers is also a topic that is worth noting and concerning. One in seven adolescents aged 10-19 worldwide suffers from a mental illness, which is a proportion that cannot be ignored. This condition is even more serious among Chinese students. In an article published in July 2023 on the impact of social media on adolescent health, the Ministry of Education of the People's Republic of China stated that adolescents may be exposed to bad information on social media, which may lead to negative psychological problems, and phenomena such as cyberbullying are also very likely to lead to depression. Long-term use of social media will affect adolescents' sleep quality, distract their attention, and may also damage brain nerve development [1].

Despite all the benefits and conveniences that social media brings, it has been criticized for having a range of negative effects on children and teenagers. It is accused of increasing teenagers' exposure to inappropriate contents, decreasing their sleeping time, and also various mental health problems including depression, anxiety, and some focusing disabilities. The constant updating and pushing of a large amount of fragmented information on social media is likely to make teenagers unable to concentrate for a long time. The decrease in focusing ability is a big problem caused by social media, it not only affects the learning efficiency and state of Chinese high school students but also affects their daily life and mental health condition.

2. Literature Review

To better research the connection between social media and focusing ability, or even attention disorders among teenagers, it is important to first understand the significant role social media plays in people's daily lives. In 2019, one-third of the world's population was using social media [2]. This phenomenon implies a worldwide trend — social media is becoming more and more popular these days. For example, TikTok launched in September 2016 and had 500 million users by mid-2018. That's an average of about 20 million new users per month during that period [2].

Lots of mechanisms and individuals have attributed the negative impact of social media on teenagers' attention. Social media, obviously, affects our attention span, which according to the American Psychological Association, refers to "the length of time an individual can concentrate on one specific task or other item of interest." As social media contains a variety of different information and contents, it is very easy to shift from one stimulus to another while using social media, which will unconsciously drop our attention span [3]. Tessa Nussenbaum also realiz-

es that phones and social platforms directly cause high school students' decreased attention spans. She points out that once the brain is accustomed to processing simple, fragmented information that occurs on social media, it will become unaccustomed to long and complex contents, and are not able to process them well [4].

A two-year study was conducted to determine the connection between Attention-deficit hyperactivity disorder (ADHD) symptoms and the frequency of using social media in 15- and 16-year-olds. The study showed a significant association between the high frequency of social media use and subsequent ADHD symptoms among the participants [5]. ADHD is a psychiatric condition involving persistent difficulty sustaining attention, therefore the increase of ADHD symptoms includes the decreasing of attention span due to the higher frequency of using social media. Similarly, a meta-analysis of the relationship between total media using time and ADHD-related actions reported small but significant associations between them [6].

Despite the background information these studies and theories have provided, there are still some research gaps in this topic. Although there are lots of studies focusing on the negative effects of social media on teenagers' mental health conditions, few studies have focused on the impact that social media brings to teenagers' attention span. In addition, there are also no specific studies on the effect of social media on Chinese high school students, which is a large population of people who use social media. Moreover, a deeper understanding of the impact of social media on attention span can help many high school students realize this phenomenon and learn the method to handle it, therefore they can begin to self-manage and actively adjust the way they use social media to reduce its adverse effects on attention. In order to achieve this purpose, this research is going to study the connection between Chinese students' time spent on social media and their ability to focus through surveys.

3. Methodology

This research was a longitudinal study on Chinese high school students from grade 10 to grade 12. The questionnaire was distributed on social platforms, including Weibo and TikTok. The reason for choosing these platforms is because they have a large range of audiences and users, which includes a large number of Chinese high school students, that helps filter the participants. Moreover, in order to further ensure that the participants in the questionnaire are all high school students, while publishing the questionnaire, in addition to the questionnaire QR code, it was marked that only high school students are allowed to

answer the questions. This can save the final data screening process.

The independent variable of this research is the average time students spend on social media. This data was collected by self-report. The participants were asked to choose the average range of time they spent on social media per day and week in order to determine the independent variable. Then, the participants played a small game called Shulte Square in order to test their attention span. Shulte square is one of the simplest tests of attention. It can not only test but also help exercise peripheral vision, attention, and memory. When playing the game, participants were asked to select the numbers from 1 to 25 in the correct order, and as they finished ordering, the total time they spent was shown on the screen. Last but not least, participants were asked to fill in their scores in the questionnaire.

Additionally, the Schulte square cannot directly test for attention distraction caused by social media, but as mentioned earlier, social media contributes to distraction and the decrease of attention span, so in fact, this result is dependent on the high school students' use of social media to some extent.

The survey was distributed over two days. Illogical answers were considered invalid questionnaires. A total of 50 questionnaires were collected, of which 47 were valid.

4. Results

The result of this questionnaire was diverse, participants showed a variety of their time spent on social media, and also on their attention span ability, which implies from the score they had got.

For the first question which is about the average time spent on social media per day, four participants chose "less than 1 hour", which is 8.51% of the whole participants. Eleven participants responded that they use social media for one to three hours a day, accounting for 23.4% of all responses. In addition, 29.79% of the participants responded that they used social media for an average of four to six hours a day, while the largest number of responses was using social media for more than six hours, reaching 38.3%, or eighteen people.

Based on that, they were also asked about the average time they spent on social media, in the unit of week. Three participants selected the option of less than three hours, and four participants responded that they use social media between ten and fifteen hours per week. Surprisingly, the number of people who selected four to nine hours and sixteen to twenty hours was the same, eight people each, accounting for 17.02% of the total answers.

For the last question, the answer becomes diverse. The

average score is 23.06 seconds, which is in the mid-level. Twenty-four participants had a shorter reaction time score than average, which means that they have a better attention span than the average participant. Twenty-three participants had a longer reaction time score than average, which means that they have a relatively worse attention span. Based on the answers, the participants whose reaction time score is shorter than the average have a variety of answers in the time they spent on social media. Eight participants responded that they used social media 1–3 hours per day, nine participants responded that they used social media 4–6 hours per day, and eight participants responded that they used social media more than six hours per day. The answers for those with longer response times were less fragmented, with ten using more than six hours a day and twelve using more than twenty hours a week.

5. Discussion

The time participants spend on social media is almost all focused on the last two options, which highlights the growing trend of high school students spending a large amount of their free time on these platforms. This result is related to the broader trend of the growing popularity of social media, such as WeChat, Weibo, Douyin (TikTok), and QQ have become a major pastime in students' leisure time, where they communicate with others, share their daily lives, and have fun and relax. High school students are increasingly using social media for social interaction and entertainment, spending almost all of their leisure time searching information streams, watching online videos, or participating in online discussions with other people.

Social media has enriched the daily lives of Chinese high school students. By browsing information on the Internet, they can have a broader perspective and knowledge and communicate with more like-minded people. Despite being a good way of spending leisure time, social media also has lots of bad influences on Chinese high school students. Traditional leisure and entertainment activities such as reading, exercise, traveling and even watching TV are being replaced by quick, thought-free, and effortless content provided by social media platforms. Social media has begun to take up all of the students' free time, limiting their opportunities to engage in other activities such as studying, exercising, or pursuing hobbies. This not only narrows their thinking but also affects their physical and mental health.

The diverse data for participants who have a better attention span can be explained by many reasons. First and foremost, the influencing factor of attention span is not single, it might be influenced by different reasons, which

may include genetics, environment, sleeping conditions, and even personal habits. This complexity may mean that the increase in social media usage time does not have a significant impact on attention. For some people, their attention and focus may be relatively unaffected by social media use due to other factors, such as effective study styles and habits, strong self-regulation, or even simply because the test was taken in a quieter environment. These people are able to manage their time effectively and use social media in a balanced way so that social media does not significantly interfere with their focus.

However, the data showed that for those participants with longer than average reaction time scores, there was a clear trend, showing that excessive use of social media can have a negative impact on their attention span. In this case, half of the participants reported spending more than 20 hours per week on social media platforms. This is obviously a considerable amount of time, which means that social media has gradually invaded every corner of their lives. The large amount of time spent on social media requires these participants to continuously receive a large amount of fragmented information, so the brain may be overwhelmed by the need to process a large amount of information quickly. In the long run, this overload may lead to difficulty concentrating on tasks that require sustained attention, and even their performance in the Schulte Square test of short-term concentration is significantly lower than those participants who use social media for a shorter time. The data show that massive use of social media does lead to a longer time for participants to do the Schulte Square test, which means that social media has shortened their attention span to a certain extent. Those who spend more time on social media platforms are more likely to develop distracted habits, often switching between tasks and a large amount of fragmented information makes it difficult for them to focus on an activity for a long time, and may even quickly lead to a decline in their ability to concentrate in a short time. In contrast, participants who use social media less may experience fewer distractions and have stronger cognitive control over attention, which makes them have a better performance in the Schulte Square test. This shows that although not everyone is equally affected by social media due to differences in diversity and self-regulation ability, for a considerable number of participants, there is a clear correlation between excessive use of social media and decreased attention.

In order to reduce the impact of social media on decreasing attention span, there are multiple aspects and comprehensive strategies. First of all, the most direct and fundamental solution is to reduce the time spent on social media. This can be achieved by setting a limitation on mobile phone use time to avoid being immersed in the

information flow for a long time. Secondly, improving the already affected attention problems through attention training projects is also an effective way. For example, meditation training, mindfulness practice, or using some applications to improve concentration. After training, the problem of inattention can be improved, helping students to better concentrate in study or work. In addition, developing good and efficient study habits is also an important part of dealing with the problem of distraction. Establishing a reasonable schedule, learning to use efficient time management methods, and focusing on completing tasks in short periods of time can all help improve learning efficiency. Finally, improving self-regulation and stress resistance can also indirectly help improve attention problems. Reducing anxiety and improving the ability to regulate emotions can make them less likely to be disturbed by the external environment and social media, thereby maintaining a high level of attention.

6. Conclusion

In conclusion, the impact of social media on Chinese high school students is significant and complex. As social media platforms become an important and central factor in students' social lives and leisure time, the constant influx of content and information on social media also becomes a real threat to their ability to focus and concentrate on academic work and tasks. For many students, the excessive time they spend on social media has been linked to their short attention spans, poor concentration ability, and increased distractibility, which all negatively impact their academic performance and mental well-being. However, it is also important to recognize that the effects of social media are not the same for all students. Some students are more capable of managing their time effectively, which makes them be impacted less by the heavy usage of social media.

This growing problem requires proactive strategies to mitigate its negative effects. Reducing screen time and managing students' use of social media can address the root of the problem. Implementing attention training and improved practice can help improve existing attention. In addition, developing the ability to self-regulate, manage time, and resist stress can help students stay focused when faced with the stimulation of a large amount of information from social media. As technology and the environment continue to evolve, educators, parents, and students must work together to find a balance between social media use and academic responsibilities to ensure that the positive effects of social media outweigh its negative effects, allowing students to thrive in a healthy and happy way.

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