

IDENTIFYING THE ROLE OF OVEREXPOSURE OF CARTOONS IN SPEECH DELAYS IN CHILDREN

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Abstract:

In this modern era, cartoons have become an integral source of entertainment for children. However, overexposure to screen watching animated videos may affect their developmental areas particularly speech and language acquisition. This study explores the relationship between overexposure to screen watching animated videos and speech delays in children especially aged from two to five. A sample of fifteen children taken from different families where overexposure to animated videos is common to come up with results. This research clearly shows how frequency and duration of viewing cartoons affect development of speech in pre-school children. This research makes an urgent call to parents and caregivers to control screen time of their children for their healthy speech development. This research aims to guide caregivers, teachers and parents to develop interactive sessions with children to promote balance screen use.

Key Words: Cartoons, speech delays, overexposure, language development, Communication, technology

Introduction:

In the current digital era, parents are depending more and more on social media, especially animated shows and videos, to keep their kids entertained. On the other hand, children who are overexposed to screens experience speech delays.

Radesky et.al (2020) supports the idea that excessive cartoon or screen viewing limits caregiver-child interaction, which can hinder language learning and contribute to speech delays in young children. Many parents are ignorant of this possible outcome, and their ignorance may negatively affect their children's speech. In particular, this article adds to the expanding corpus of research on how excessive screen time affects kids' language development, especially concentrating on the connection between children's speech delays and excessive exposure to animated videos. This study closes a gap in the literature by examining this particular aspect and offering fresh perspectives on the effects of animated video overexposure on language development. This study advances our knowledge of the connection between children's speech development and excessive screen time, which can help develop early detection and intervention techniques to avoid speech delays.

By increasing awareness of the implications of overexposure to screen time on children's language development, this study will help parents keep their kids using screens in a healthy way. Teachers will also learn how to create preschool curricula and new intervention techniques that encourage balanced screen time and engaging, language-rich activities. The article supports the idea that excessive cartoon or screen time diminishes the interaction between the caregiver and the child, which may hinder language development and result in speech delays in young children.

Zimmerman et.al (2007) found that increased exposure to television and animated videos in early childhood reduces interactive communication with parents, leading to lower vocabulary growth and delayed speech development.

The purpose of this study is to determine how children's speech is impacted by excessive exposure to animated videos, to investigate the reasons behind positive and negative impacts on children's speaking abilities, to look into the causes of children's speech delays brought on by excessive screen time spent watching animated videos. According to the findings of this study, children who are exposed to a lot of television and animated videos at a young age have less interactive communication with their parents, which leads to poor vocabulary development and delayed speech acquisition.

While exploring this research what specific questions can arise. What is the correlation between overexposure to animated shows and speech delays of children? How is the duration of animated videos impacting children's speech? Why are certain age groups more susceptible to speech delays due to animated video overexposure?

This research has been delimited to children aged 2 to 5 years, specifically focusing on a sample of 15 children from a region where overexposure to screen time to watch animated videos is prevalent.

Literature Review:

As this research is going to find out the link between overexposure to cartoons and speech delays in children. So, to find a gap researchers have seen previous researches and found a gap. It is suggested by Alamri et al. (2023), In today's fast-growing digital world, children have easy access to digital devices and parents often rely on these devices for entertainment purposes. As a result, digital devices have become a crucial part of both children's and parents' lives. Children are growing up alongside smartphones, learning from them, and experiencing both positive and negative impacts. Moreover, Alamri et al. (2023) research suggests a link between excessive screen time and speech delays in children. When children excessively use digital devices or gadgets, it can affect their communication skills and speech development. Parents and caregivers must be aware of these potential risks and ensure a balance approach to technology use in children's lives.

Similarly, Al Hosani (2023) shares that screen time is the duration of exposure to digital devices like phones or computers. As technology advances, screen time is increasing. Comparing past and present, screen time exposure is starting earlier, with even four-month-old babies being exposed to screens. Previously, children started using mobile phones at least from the age of four years but now even four-month-old babies are experiencing screen exposure. This increment of screen exposure led to concerns about the impact on child development.

In relation to language learning Rowe and snow (2020) state that during early childhood language learning is an interactive and mutual process rather than just an act of hearing words.

Suskind (2018) states that the foundation of language learning lies in serve-and-return exchange between the caregiver and the child which helps to stimulate brain development for communication.

Furthermore, Metzolf (2021) adds here that children learn how language is used in different contexts through shared attention and timely responses and shared focus in different engagements. In contrast, cartoons offer one way communication and lack of necessary elements of responsiveness.

In addition to this idea, Kabadayi (2024) says that for decades cartoons have been considered to be a central part of children's entertainment. These animations attract young audience through vivid characters, bright visuals, and imaginative plots. In this modern digital era,

where children can access such content, it becomes crucial to know how it impacts the developmental growth of preschool children.

Supporting this, Wijethilaka (2020) says that the cartoon network (CN) has a strong influence on pre- school children. It impacts their way of living, dress and aggressive behavior. According to him, Over 80% of children spend time watching cartoons and 84% of children like to watch it on cartoon network.

Likewise, Ghilzai et al. (2017) state that cartoons have a profound impact on children. When kids watch cartoons, they become deeply engaged and their critical thinking skills improve. However, children tend to imitate what they see, which is why cartoons can have a significant influence on their behavior and development. It's essential for creators to produce content that adheres to guidelines and laws, avoiding violence and other mature themes that may not be suitable for young audiences. Cartoons directly impact children's communication skills and speech abilities.

Extending this argument, Putra et al. (2022) says that smartphones and other devices are a contributing factor to children's speech delays, particularly in children younger than three. These kids may also exhibit autism spectrum symptoms. This article attempts to illustrate the statistical relationship between children's phone usage and speech delay. After distributing the questionnaire and conducting interviews with 70 respondents who were parents of 15-year-old children in Indonesia, researchers used a mixed method to discuss the negative consequences of using smart tools. They came to the conclusion that excessive use had a negative impact on children's verbal and cognitive development.

However, Barr et al. (2018) research suggests that while the risks of screen overexposure to non-Interactive content are clear, it also suggests specific high quality educational media influence positively.

Similarly, Kirkorian et al. (2019) highlight that when children co-view screens with adults, their learning is enhanced. They emphasize that shared screen time transforms non-interactive screen time into an interactive one which fosters better communication. It highlights the importance of supervised co-viewing, where caregivers can engage with children and discuss content.

Kumar et al. (2022) suggests that speech is the mandatory source of delivering information and it is possible through language. Language carries the words in either verbal or nonverbal ways. Disorder of speech and language is defined as hurdle I'm oro-motor function and devoid of communication. Delayed speech occurs when patient is unable to speak at expected age. Nearly 5% of ongoing primary school children have been detected as speech delay patient. The variation of speech delays disorder is 3%-20% of this age while the percentage of language disorder is much less in school going children. This can be one of most prominent hurdle in development of child and known as primary in case ,not yet diagnosed . However, if diagnosed, then it can be referred to as the secondary cause. Other factors can be divided into hearing, behavior problems, and neurological ones.

Correspondingly, Mendelsohn et al. (2019) Share that when children experience non-interactive screen time it increases the risk of speech delay in them.

Methodology:

This research employed a mixed approach (Qualitative and quantitative) to investigate the link between children's speech delays and overexposure of screen particularly watching cartoons. This research has been designed to allow for the analysis of correlation between screen time and speech development in pre-school children.

The study sample consisted of 10 children from different families aged from 2 to 5 years, recruited from five pre-schools and two pediatric clinics in Lahore. Participants were selected through convenient sampling. Selection criteria was just to get the first 10 children facing

speech delay.

Parents or caregivers provided informed consent before participation.

The data collection process took over a seven-week period. After the consent of institutions and parents, parents completed the provided questionnaire during continuous visits to clinic and school meetings. Observations were voice-recorded by the researchers and later analyzed to recruit required data.

Researchers divided children based on their screen exposure.

- low: less than one hour / day
- Medium: 1-4 hours / day
- High: More than four hours per day

Researchers shared a structured questionnaire with the parents to gather information regarding the child's screen time, type of content (educational or cartoons) and co-viewing.

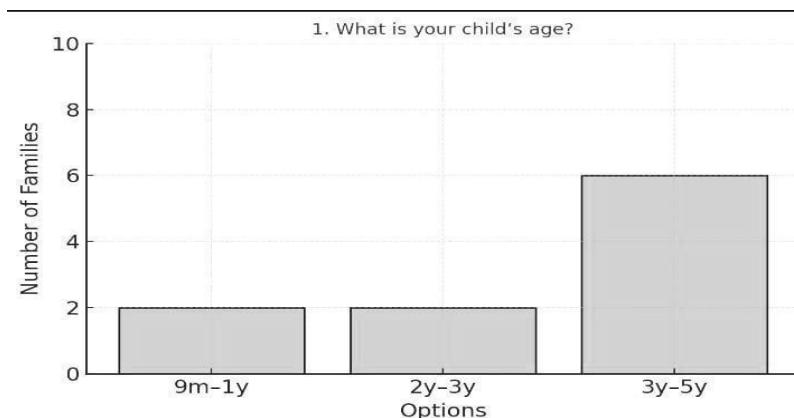
Researchers used preschool language scale-fifth (PLS) to evaluate the language skills of children. This tool gave an overview of verbal expression in the pre-school children.

Data Analysis:

Researchers managed to collect data through questionnaires which has been shown below.

(1) What is your child's age?

- (a) 9 months – 1 year
- (b) 2 year – 3 years
- (c) 3 year – 5 years



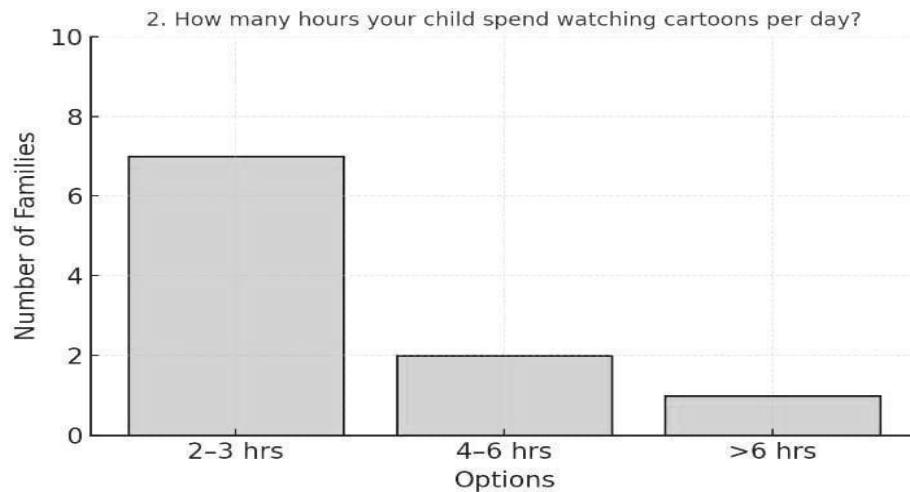
Statement 01: TABLE

Interpretation:

Majority of the families bear children between 3-5 years and there are approximately seven families in the bracket. On the other hand, only two families are contained in the 9 months-1 year and 2-3 years age groups. This shows that old children are more represented as respondents.

(2) How many hours your child spends watching cartoons per day?

- (a) 2–3 hours
- (b) 4–6 hours
- (c) More than 6 hours



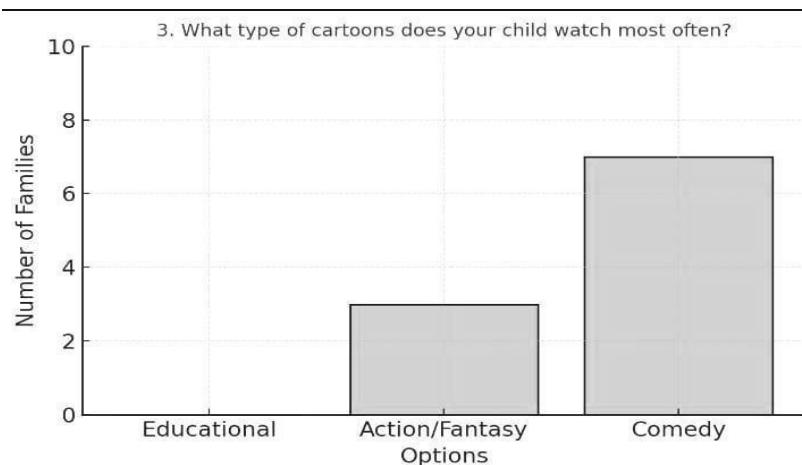
Statement 02: TABLE

Interpretation:

A majority of 2-3 hours a day are spent by most children watching cartoons and about seven families confirm that. Few were identified to have more than six hours and the highest number (two families) had between 4-6 hours, which indicated moderate screen time by most children.

(3) What type of cartoons does your child watch most often?

- (a) Educational
- (b) Action and Fantasy
- (c) Comedy



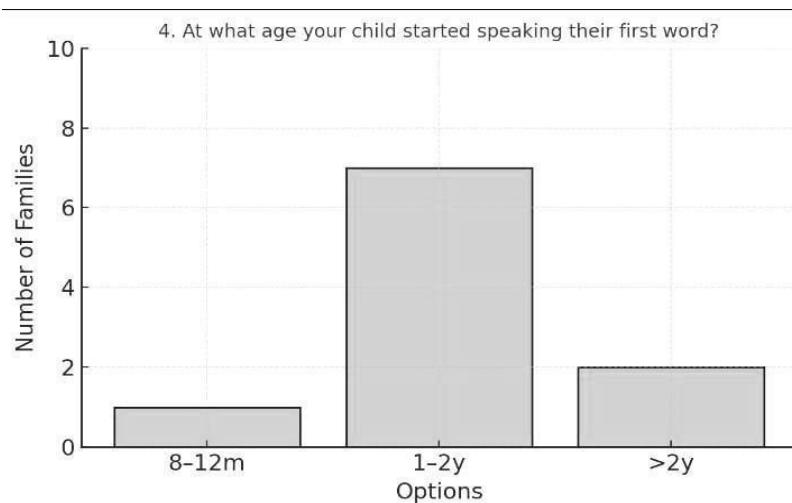
Statement 03: TABLE

Interpretation:

The majority of children like watching comedy cartoons, and there were approximately seven families that reported this option. Three families watch action/ fantasy cartoons moderately and educational cartoons have the least number of viewers.

(4) At what age your child started speaking their first word:

- (a) 8 months – 12 months
- (b) 1 year – 2 years
- (c) More than 2 year

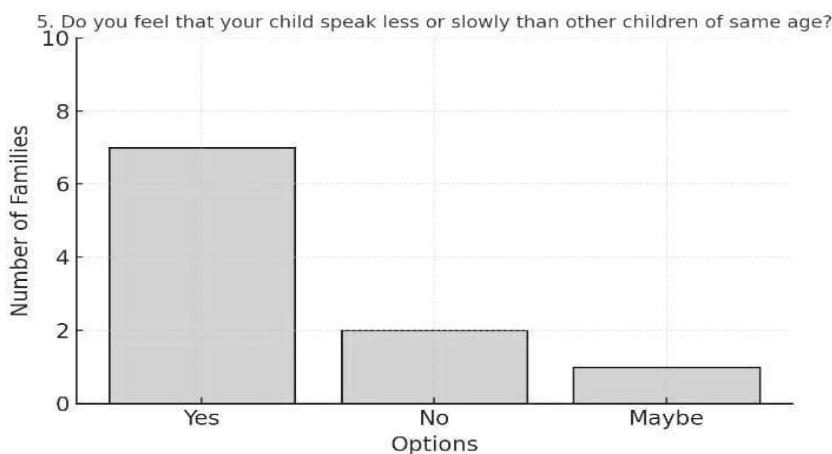


Interpretation:

The majority of children started speaking their first word at the age of 1-2 years, which are reported by approximately seven families. Speech started 2 years in 2 families and 8-12 months in only one child.

(5) Do you feel that your child speak less or slowly than other children of same age?

- (a) Yes
- (b) No
- (c) Maybe



Statement 05: TABLE

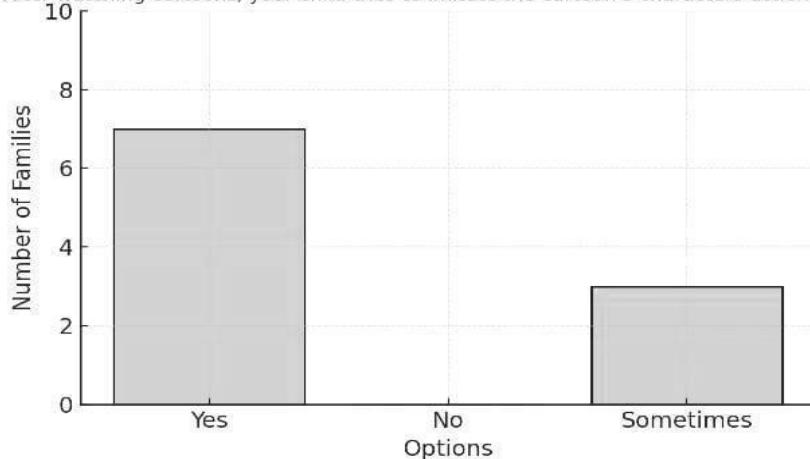
Interpretation:

There are approximately 7 families whose parents feel that their child speaks slower or less than other children. There were two families with a disagreement, one of which was uncertain and there was a general concern regarding delayed speech development.

(6) After watching cartoons, your child tries to imitate the cartoon's characters action or accent?

- (a) Yes
- (b) No
- (c) Sometimes

6. After watching cartoons, your child tries to imitate the cartoon's characters action or accent?



Statement 06: TABLE

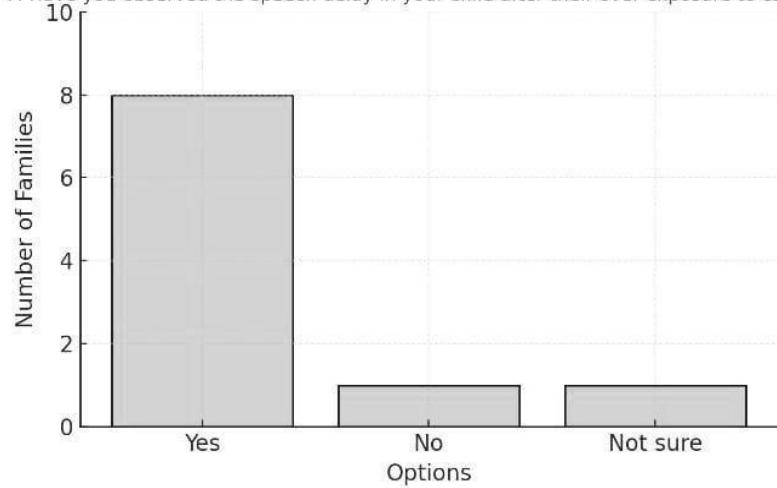
Interpretation:

Most of the families, seven of them, noticed their children mimicking the actions or the accents of the characters in cartoons. This occurred in three families sometimes and never in the other families, which was a strong influence of mimicry due to the cartoons.

(7) Have you observed the speech delay in your child after their over exposure to cartoons?

- (a) Yes
- (b) No
- (c) Not sure

7. Have you observed the speech delay in your child after their over exposure to cartoons?



Statement 07: TABLE

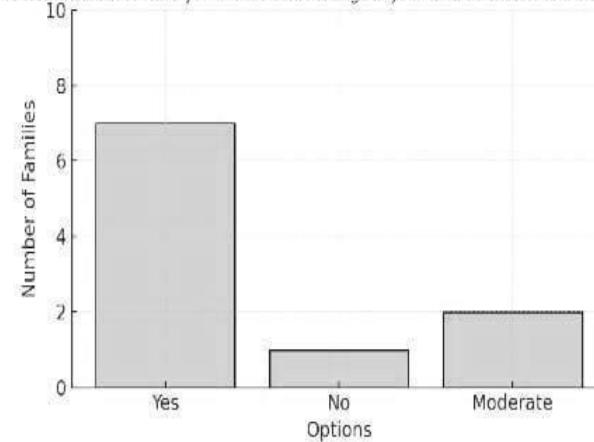
Interpretation:

Out of eight observed families, the majority of them had observed the speech delay in their child following the overexposure to cartoons. There was just a single family that did not agree and one family was uncertain which indicated a strong connection was perceived between screen time and delayed speech.

(8) Do you feel your child less interactive? Have you noticed some change in your child's behavior and interaction after watching cartoons?

- (a) Yes
- (b) No
- (c) Moderate

8. Do you feel your child less interactive? Have you noticed some change in your child's behavior and interaction after watching cartoons?



Statement 08: TABLE

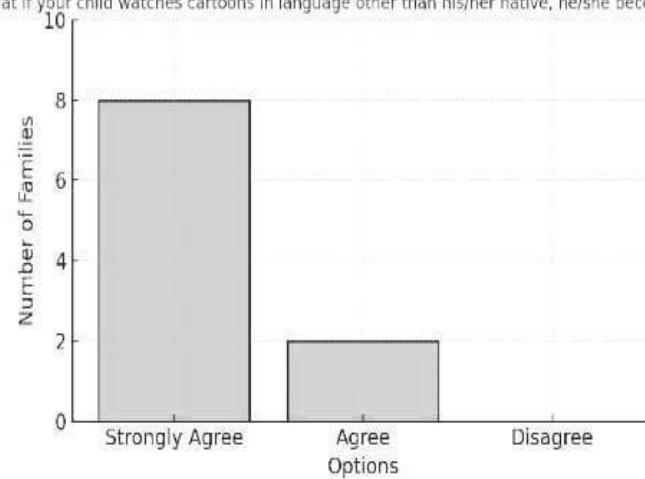
Interpretation:

The majority of the families, seven of them, believed that their child had become less interactive after watching cartoons. Two families responded with a middle range of changes, and the other one reported having no change, which indicates the decreased social interaction associated with cartoon watching.

(9) Do you agree that if your child watches cartoons in language other than his/her native, he/she become more interested in that?

- (a) Strongly Agree
- (b) Agree
- (c) Disagree

9. Do you agree that if your child watches cartoons in language other than his/her native, he/she become more interested in that?



Statement 09: TABLE

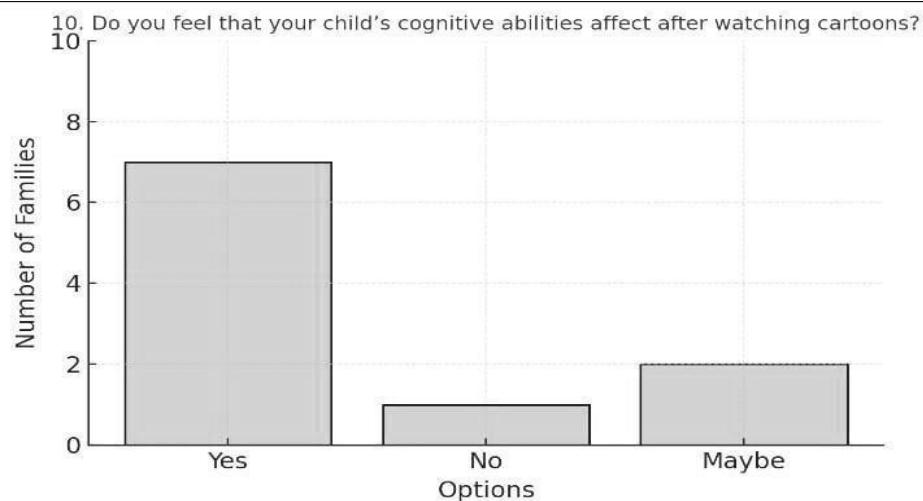
Interpretation:

Most of the families, eight out of them, have a strong conviction that children will have more interest with the cartoons when they are in a non-native language. There are two families that

agree, and none of them disagreed, which shows that there is a high level of involvement in foreign-language material.

(10) Do you feel that your child's cognitive abilities affect after watching cartoons?

- (a) Yes
- (b) No
- (c) Maybe



Interpretations

The number of families who believe that the cognitive abilities of their child are influenced after consuming cartoons is seven. Two of the families were up in the air, and only one of them felt no effects, being concerned about the influence of screen exposure on cognition.

Conclusion:

This research clearly shows a link between the excessive uses of screen which suffers children with speech delays especially the children aged from two to five. This study has revealed that when kids spend too much time on screen to watch cartoons, it affects their interactive and communicating abilities. Furthermore, it retards their language development and develops speech delays. This research has shown both positive and negative impacts of overexposure to screen watching cartoons. Children learn a lot from it from watching cartoons, where they are learning, they are losing away their language development. This research is also highlighting the importance of teachers and parents in controlling the screen time of children and also inspiring them to develop interactive conversations with children. This study instructs them to engage children with storytelling and other interesting things which helps to prevent speech delays in children. By continuous monitoring, parents can control their children's habits of excessively watching cartoons, which becomes the cause of speech delays later. The results of conducted surveys shows that children are facing speech delays due to overexposure to screen watching animated videos. Overall, this research is highlighting both positive and negative effects of children's overexposure to cartoons, focusing on takeaways of excessive use of screen watching cartoons by children. It clearly shows that digital media especially cartoons for children should be watched in a balanced way. The research findings underline the special need to control children's habits of watching cartoons excessively. Lastly, the research guides parents and caregivers to maintain the screen time for children for healthy communication.

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