



RESEARCH PAPER**Language Acquisition and Infant's Exposure to Television in Pakistan:
Phenomenological Study of Mother's Experiences**

¹Minal Safeer, ² Dr. Ayesha Qamar* and ³ Dr. Malik Adnan

1. M. Phil Scholar, Fatima Jinnah Women's University The mall, Rawalpindi, Punjab, Pakistan
2. Assistant Professor, Department of Communication and Media Studies, Fatima Jinnah Women's University, Rawalpindi, Punjab, Pakistan
3. Associate Professor, Department of Media & Communication Studies, The Islamia University of Bahawalpur, Punjab, Pakistan

*Corresponding Author | ayeshaqamar@fjwu.edu.pk

ABSTRACT

Due to the development of technology, television has become a medium that significantly affects children's language acquisition, particularly in the context of various programs. This study investigated how exposure to TV impacted their infant's language acquisition and social interaction, determined by mother perception and how much time they spend on TV daily. Children's language acquisition is affected by multiple factors. One factor that impacts children's language acquisition at the linguistic phase is the environment, like cartoons. It can be seen from the use of words, expressions or sentences that the children utilize in their daily conversations. This study was qualitative research with a phenomenological research design. The data was collected from children's mothers whose children are aged 0 months old to 36 months old. In compiling the data, the researcher used observation and in-depth interviews. The study results indicated that YouTube cartoon-like Cocomelon significantly impacts children's language acquisition from 0 to 36 months old. High exposure to cartoons leads to visual autism in some children in this study, while children also learn different rhymes from the cartoon. Future studies can investigate the language acquisition and frequency of mobile screens under quantitative design.

KEYWORDS Cartoons, Infants, Language Acquisition, TV, YouTube

Introduction

With technological advancements, children are no longer limited to watching films and listening to music on traditional television networks; they now have access to a wealth of films via their mobile gadgets. (Mc Givern, 2014). The YouTube platform sets out among the various forms of multimedia stimulation that foster children's language development. YouTube offers diverse, compelling multimedia programming that appeals to adults and kids. Children, in particular, are intensely interested in movies with themes tailored to their ages, such as music and other children-friendly content. Furthermore, children can watch these videos numerous times, allowing them to improve their vocabulary and grasp of language-related ideas by imitating and reciting the narratives or songs they have heard. (Shabiralyani et al., 2015). Notably, a significant fraction of these movies and songs are in English. Aside from music, there is a wide range of English-language stories accessible, as evidenced by films featuring characters such as Cocomelon, Ping Fong, and Peppa Pig (Kanozia, 2019). Parenting children of today's generation comes with unique challenges due to recent technological advancements. There is no denying the reach technology has in our lives, as well as the lives of our children (muzaffar, et. al. 2019).

Children acquire language acquisition in distinct stages, and the timings of reaching these phases may differ among individuals. Crain and Martin have categorized these stages into five key steps:

A. Cooing (6 months): Children use phonemes from all languages they are exposed to. They create vowel-like sounds, such as "oo," "aa," and "ee."

B. Babbling (9 months): Infants carefully use phonemes specific to their native language. They create repetitive syllables like "ma-ma-ma" or "ba-ba-ba," indicating an expanded awareness of the speech sounds within their linguistic environment.

C. One-word utterances (12 months): Children start speaking single words to convey meaning around their first birthday. These words are frequently simple and may represent important objects, actions, or states, enabling them to communicate basic needs and desires.

D. Telegraphic speech (2 years): Children improve to many-word utterances. However, these utterances lack precise function words (such as articles and prepositions) and helping verbs, leading to a more concise and clear speech resembling telegraphic messages.

E. Normal speech (5 years): Children reveal nearly fully developed speech capabilities. They show fluency, a broad vocabulary, and the capability to use grammatical forms more accurately, which precede the language skills of older individuals.

According to Chomsky(1965), each child already has a system for learning a language. The system first absorbs language data from the child's surroundings and converts it into grammar. The setting in which children learn to speak is only a tiny component of language acquisition; the majority is found in biology or natural systems. Chomsky believes that once a youngster learns a language, they will likely copy language patterns illustrated by adults. This imitation process occurs without study and follows the same patterns in different languages.

YouTube

YouTube is one of the world's most widely recognized and extensively utilized digital content platforms. Its appeal expands to individuals of all age groups. Still, it has the excellent attraction of children due to its technical marks that present knowledge, figures, and behaviors in an engaging and exhilarating manner.

Psychological Concerns of YouTube Cartoon Videos

The growing consumption of YouTube kids channels has sparked concerns among child psychologists regarding the quality of content targeted at children. Particularly alarming is that children under two are becoming addicted to animated content, with parents often providing excessive screen time for entertainment purposes (Kanozia & Jindal, 2019). This reliance on technology has raised significant concerns about its impact on children's health and well-being. Disturbingly, there have been reports of malicious content on YouTube specifically targeting children as young as two years old (Bila, 2018).

Despite the growing popularity of YouTube cartoons as a source of entertainment for young children, there is a lack of comprehensive research on the effect of YouTube on toddlers' language acquisition. The study aims to examine the impact of YouTube cartoons on vocabulary development and language comprehension in toddlers aged 0 to 36 months

old within a home atmosphere. By qualitative observations, this research aims to fill the existing gap in knowledge and provide significant insights for parents, educators, and policymakers concerned with early childhood growth and screen time recommendations.

Literature Review

According to Aristotle's definition, "speech" is a kind of articulated "voice". The primary difference between "voice" and "speech" is the articulation process, which is performed by the tongue. Aristotle draws such a difference from the aspect of vocalization organs.

Gender Recognition in YouTube Content:

The study reveals that adolescents are capable of recognizing between genders and states that boosting exposure to television can result in engagement in anti-social action while (2021) reveals that YouTube contains a substantial amount of videos and ads, with an extensive number of gender-positioned ads spreading gender stereotypes (Ghilzai, 2017)

Effects through Cartoons

Koravi(2018) finds that cartoons greatly curtail outdoor activities for school children, causing worrisome language, behavior, and anger modifications, thus double influencing their mental and physical health. Alexiou & Kokla (2019) Mention materialistic habits, examining both positive effects like Popeye's Spinach promotion and negative consequences associated with aggression. Finds out generic phases with visible repetition across episodes of Peppa Pig

Frequency of viewing

(Jordan et al. (2006) It is shown that most children watch about 3 hours per day, while parents force viewing restrictions. Betti and Kadam(2022) concluded that kids are exposed to cartoon videos for approximately four and five hours daily. Raghav & Kumar(2010) state that TV becomes reachable to children at an average age of 2.96 years and indicate that the usage of mobile phones in families should be reduced because cartoon shows represent a greater risk to children's future,

Adverse Impact On Toddlers

Cantor(2002), Gökçearslan (2010) and Qadri & Akram (2020) discuss media violence's influence on minors and adolescents, pointing out that expansion and sensitization effects could have long-term implications on their lives and Masur et al.(2016) raised exposure to background television during dynamic play had an adverse impact. While Ehrman et al.(2003), Santana(2021) construct into the intricate area of individual changes in language acquisition, focusing their numerous phrases in learning styles, cognitive and psychomotor aspects, methods, and affective aspects. (Wijethilaka(2020)found that particular children led to unrealistic messages about violence, requiring different experimentation to optimize the use of cartoon characters.

Violent Behavior

Huesman et al.(1984), Raza & Nawaz gondal(2016) find out that cartoons exert a notable and persistent influence on children's behaviour and linguistic usage, modifying opinions and behaviours directly and indirectly.Chandler (2004), Mistry et al.(2007) and

Ahmed(2020) discovered that heavy television exposure only in initial childhood lacked connection with subsequent behavioral or social skills and also influenced their thoughts on cultural values, social norms, and aesthetics (Muzaffar, et. al 2020).

Material and Methods

The nature of this study is qualitative, and the research design is phenomenological. The target participants' behavior and thoughts on a particular subject will be investigated and exposed through qualitative research. In-depth interviews are among the methods used in this form of research.

Sugiyono (2005) states, "qualitative research is used to examine the condition of natural objects, where it is a key instrument." The data used in this investigation was posted to the subject's private YouTube account. The video is the primary source of information for the study. A non-participant observation technique was used to acquire this data. This method entailed studying the subject's behavior and analyzing the language used in a specific YouTube video they had submitted.

Phenomenology Study

A phenomenological study on this particular subject involves monitoring infants' interactions with television and examining the meanings they attribute to the objects they observe. By employing phenomenology to examine the effects of television on infants' language acquisition, researchers can achieve rich insights into the subjective experiences of infants and their understanding of televised language stimulation. This study can provide a nuanced understanding of how television impacts infants' language development, highlighting the significance of considering individual experiences and interpretations within the broader context of language acquisition. As a result, the study is qualitative phenomenology because it will pay attention to parents' lived experiences about the role of YouTube cartoons in sparking learners of infants, their language acquisition, and social interactions.

Population: The population under study is all children under 3 years of age who have not reached their language milestones and are classified as delicate regarding language development. Language milestones are intended to be the expected and age-appropriate phases of language acquisition and capacity of communication skills that children typically achieve during their initial developmental years.

Sampling Technique: The study participants will choose to sample, and the ball technique helped the researcher find the purposive data. There were 10 parents whose infants' language acquisition was affected by TV. This research has been conducted conduct on infants who are less than 3 years old. It will include those parents whose infants are growing up watching different videos. Parents who did not meet the established criteria were excluded.

Data collection: This research uses a qualitative study applying phenomenology research. The subject is Pakistani infants exposed to English rhymes and cartoons for at least 6 hours every day from 01 to 36 months.

Results and Discussion

In summary, some mothers perceive TV, especially educational cartoons like Cocomelon, as advantageous for their child's language acquisition because it exposes them to vocabulary, language frameworks, and storytelling. However, issues have arisen

concerning addictive behaviors in children due to the anonymous nature and high-quality content of Cocomelon. Dr Rebecca G. Cowan (a well-known child psychologist) highlights parents being mindful of their children's digital content behaviors and promoting an appropriate response. The growing challenges of digital addiction necessitate parents to set restrictions, encourage a healthy mixture of activities, and promote collaborative efforts among participants to create a healthier digital environment for children. Additionally, parents raise concern that excessive TV exposure to YouTube cartoons, like Cocomelon, may hinder or delay language acquisition in infants and toddlers, developing a preference for direct interactions and verbal communication for language development. Research suggests a potential link between increased TV viewing in early childhood and inferior language skills.

The research showed that infants and toddlers spend an average of two hours of screen time daily, with television making up about 1.25 hours. Dr. Hajera (a clinical psychologist) suggests limiting daily cartoon viewing to two hours and emphasizes using one language with toddlers at a time. A study in Pakistan highlights the popularity of YouTube cartoons, with 98% of children consistently watching them. Remarkably, 30% of children watch television excessively, and some like cartoons, including Cocomelon, Ping Pong, Peppa Pig, and Basha and the Bear. Cartoons are a beneficial way to engage children while parents are involved with household chores. The study found that 90% of children believe cartoons assist them in learning new concepts like shapes, colors, alphabets, numbers, rhymes, and poems, revealing the educational potential of particular cartoons for early learning and cognitive development. At the same time, excessive YouTube cartoon consumption can potentially delay language development, with 60% of toddlers in the study suffering delayed language acquisition. To address these problems, parents, guardians, and educators should establish a balance by allowing children to watch educational and age-appropriate cartoons while limiting screen time. Co-viewing and participating in activities beyond screen time, such as outdoor play, reading, and creative play, can foster comprehensive development and reduce reliance on cartoons. While YouTube cartoons offer learning and entertainment benefits, parents must be mindful of the potential adverse effect of excessive screen time and prioritize quality content for children's overall development.

The study by Nathanson Rasmussen (2011) emphasizes that prolonged screen time, especially spent watching YouTube cartoons, can trigger language developmental delays in children due to reduced interaction with parents or caregivers. The study focuses on adverse psychological and emotional consequences, mainly concentrating on changes in behavior and social interactions. YouTube cartoon videos can influence children's behavior, potentially leading to violent or abusive attitudes, especially when children are unable to distinguish fiction from reality. Additionally, excessive exposure to YouTube cartoons can hamper language development, creativity, and meaningful communication, potentially causing challenges in verbal speech. The study also identifies a concerning trend of social isolation among children who frequently watch YouTube cartoons, adversely impacting their social and emotional development. Children become less sensitive to parental interactions during screen time, possibly damaging parent-child relationships. The result underlined the significance of parental awareness, setting suitable screen time limits, and encouraging a balanced approach between screen time and other activities like outdoor play, reading, and creative activities. Furthermore, it required collaborative initiatives involving parents, educators, content creators, technology companies, and YouTube as a platform to create and promote age-appropriate and educational content, ensuring a safe and enriching digital environment for children.

Discussion

Language acquisition in children is affected by numerous components, and the environment, including YouTube cartoons, can be one such influential element. Children watching television may adapt new language components from the dialogues and discussions of characters in the videos. At the same, the risk of visual autism may be raised in some children. In this regard, the research study examines the effects of YouTube cartoon videos on toddlers' language acquisition, with Cocomelon being one of the most-watched cartoons on YouTube. It revealed how exposure to television, mainly through YouTube cartoons and videos, affected infants' language acquisition. The findings showed that the amount of time children watch and listen to rhymes from YouTube videos affects the children and varies from case to case. The cartoons have engaged positively with their tendency to imitate and incorporate those words into their everyday speech. It is also aligned with the study (Gokulsing, 2009) that children are also influenced by television dramas and cartoons, leading to reaching a wide range of linguistic phases.

The research findings revealed a significant association between the time spent on devices and exposure to YouTube cartoons in their language. Some working women could give time and use daycare facilities that hinder developing a connection with mother and baby. The study of Dekhinet, Zeedyk, and Topping (2013) explained that for children, the number and quality of parent-infant connections are critical to this development.

The research highlights the effect of YouTube cartoons on early-age children and the significance of managing screen time to encourage healthy speech and psychological well-being development. It points out the vital role of parent-child interaction in developing speech fluency and recommends prudent guidelines for media consumption during critical developmental phases.

Conclusion

Based on this research and the study's result, the researcher supports the idea that early exposure to screen-based technology warrants reconsideration. The research overview surrounds a range of findings, including both positive and predominantly negative outcomes associated with early screen-based studies, especially those related to YouTube cartoon channels. Due to technological advancements, it is vital to reevaluate these studies, considering the potential enhancements in interaction, mobility, accessibility, and the integration of artificial intelligence (AI). In addition, the investigation inspects the advancements in human interface design that cater to the needs of younger users. It is essential to account for parental attitudes and behaviours toward their technology use and their children's, as this significantly influences the overall impact. Ultimately, this topic's primary focus is to understand the abilities and limitations of very young children, specifically those between the ages of 0 and 36 months.

In conclusion, YouTube must consider the concerns of parents and the potential harm its content can cause children. By taking decisive steps and implementing adequate safeguards, YouTube can become a more responsible and child-friendly platform, enhancing the lives of young viewers rather than negatively influencing them.

Recommendations

Initially, it is essential for parents to actively supervise the cartoons that their children watch and confirm that the comics are appropriate for their age. Further, it is

necessary to point out that children do not always desire to prioritize entertainment; educational and enriching material should also be encouraged.

Existing literature reveals proof of research conducted in this field, especially in Pakistan. Still, there is a need for similar research to be completed worldwide, encompassing different countries, to comprehend how TV affects infants and toddlers in other cultural circumstances. By doing so, we can determine if the assumptions made in earlier research hold valid among diverse audiences.

Reference

- Ahinda, A., murundu, Z. O., okwara, M. O., odongo, B. C., & okutoyi, J. (2011). Effects of television on academic performance and language acquisition of pre-school children. *International Journal of Education and Research* 2(11), 493-502
- Alexiou, T., & kokla, N. (2019). Cartoons that make a difference: a linguistic analysis of peppa pig. *Journal of linguistics and education research*, 1(1), 24-30.
- Al-jarf, R. (2021). Differential effects of the ipad on first and second language acquisition by saudi children during the covid-19 pandemic. In conference proceedings of «elearning and software for education «(else) (vol. 17, no. 01, pp. 95-104). Caroli national defence university publishing house.
- Archer, k., Wood, E., & De pasquale, D. (2021). Examining joint parent-child interactions involving infants and toddlers when introducing mobile *technology Infant behavior and development*, 63, 101568.
- Asgari, A., & Mustapha, G. B. (2011). The influence of informal language learning environment (parents and home environment) on the vocabulary learning strategies. *English language and literature studies*, 1(1), 7.
- Betti, M. J., & Igaab, Z. K. (2022). Original paper investigating the effect of the language of cartoon films on children's acquisition of their mother tongue: a case study of three children. *Education, Language and Sociology Research* 3(3), 66-86
- Bloom, K. (2021). Gender representation in children's youtube: presence of gender-role stereotypes in advertisements on content within children-driven youtube channels (doctoral dissertation, temple university. Libraries).
- Burroughs, B. (2017). Youtube kids: the app economy and mobile parenting. *Social media+ society*, 3(2), 2056305117707189.
- Buzzi, M. (2011, september). Children and youtube: access to safe content. In proceedings of the 9th acm sigchi italian chapter *international conference on computer-human interaction: facing complexity* (pp. 125-131).
- Cantor, J. (2002). The psychological effects of media violence on children and adolescents. *In colloquium on television and violence in society, Montreal*
- Chandler, D. (2004). Television violence and children's behavior. Retrieved August, 12, 2013.
- Cheung, C. H., bedford, R., Saez de Urabain, I. R., karmiloff-Smith, A., & Smith, T. J. (2017). Daily touchscreen use in infants and toddlers is associated with reduced sleep and delayed sleep onset. *Scientific reports*, 7(1), 1-7.
- Ehrman, M. E., leaver, B. L., & Oxford, R. L. (2003). A brief overview of individual differences in second language learning. *System*, 31(3), 313-330.
- Fitriani, S. (2021). Teaching english for toddlers by using youtube. *Antasari state islamic university, Banjarmasin*

- Ghilzai, S. A., Alam, R., Ahmad, Z., Shaukat, A., & Noor, s. S. (2017). Impact of cartoon programs on children's language and behavior. *Insights in language society and culture*, 2, 104-126.
- Ghorbani, M. R. (2011). Watching cartoons with subtitles improves children's foreign language acquisition. *Us-china foreign language*, 9(4), 241-246
- Gildon, W. F. (2021). Language development in toddlers: a hermeneutic phenomenological study of nursery rhyme use by mothers with their toddlers. A Dissertation Presented in Partial Fulfillment Of the Requirements for the Degree Doctor of Education, Liberty University
- Gökçearsan (2010).the effect of cartoon movies on children's gender development: *procedia - social and behavioral sciences* 2(2),5202–5207
- Gokulsing, K, M. (2009).popular culture in globalized india. *Routledge*.
- Hager, R. L. (2006). Television viewing and physical activity in children. *Journal of adolescent health*, 39(5), 656-661.
- Handayani, W., Rafli, Z., & Boeriswati, E. (2021). The effect of you tube channel ania and elsia on second language acquisition in early children. *International journal of multi science*, 2(09), 28-35.
- Handayani, W., Rafli, Z., & Boeriswati, E. (2021). The effect of you tube channel ania and elsia on second language acquisition in early children. *International journal of multi science*, 2(09), 28-35.
- Holst, O. (2023). Video game-based language learning and literacy a systematic review of the current state of research on video game-based learning and language learning. *Goteborg Univestitat*
- Huesmann, l. R., lagerspetz, k. M., & eron, l. D. (1984). Intervening variables in the television violence-aggression relation: evidence from two countries. *Amarican phyhological association*, 20(5), 746-775.
- Hutchinson, H. (2008). Starting young: a kids' reality show keeps on designing. *Mechanical engineering-cime*, 130(1), 44-45.
- Jindal, R., & kanozia, R.(2019) Do youtube based children channels impactParenting?an exploratory study .*Review of research*.8(8)1-11
- Jordan, A. B., hersey, J. C., Mcdivitt, j. A., & heitzler, C. D. (2006). Reducing children's television-viewing time: a qualitative study of parents and their children. *Pediatrics*, 118(5), e1303-e1310.
- Kartushina, N., Mani, N., Aktan-Erciyes, A., Alaslani, K., Aldrich, N. J., Almohammadi, A., ... & Mayor, J. (2022). COVID-19 first lockdown as a window into language acquisition: associations between caregiver-child activities and vocabulary gains. *Language Development Research*, 2(1). (10.34842/abym-xv34). (halshs-03814773)
- Knorr, C. (2020). Parents' ultimate guide to youtube kids. Retirado de: <https://www.Commonsensemedia.Org>.

- Koravi, V. S. (2018). Effects of cartoon channels on the behavior of school going children-a survey study. *Ayurvedic medical journal*, 6(5),607-644
- Kukreja, J. (2019). Cartoons cast an eternal impact on personalities: effects of cartoons on children. *In handbook of research on children's consumption of digital media* (pp. 369-379). Igi global.
- Lauricella, A. R., Gola, A. A. H., & calvert, S. L. (2011). Toddler's learning from socially meaningful video characters. *Media psychology*, 14, 216-232.
- Lavigne, H. J., Hanson, K. G., & Anderson, D. R. (2015). The influence of television coviewing on parent language directed at toddlers. *Journal of applied developmental psychology*, 36, 1-10.
- Linuwih, E. R., & Trihastutie, NB. (2020). Digital entertainment to support toddlers' language and cognitive development. *Teknosastik*, 18(1), 1-14.
- Lodhi, M. A., Ibrar, S. N., Shamim, M., & Naz, S. (2018). Linguistic analysis of selected tv cartoons and its impact on language learning. *International journal of english linguistics*, 8(5), 247.
- Masur, E. F., flynn, V., & Olson, J. (2016). Infants' background television exposure during play: negative relations to the quantity and quality of mothers' speech and infants' vocabulary acquisition. *First language*, 36(2), 109-123.
- Mcgivern, R. (2016). Media and technology. Introduction to sociology-2nd canadian edition. *ecampusontario.pressbooks.pub*
- Mistry, K. B., Minkovitz, C. S., Strobino, D. M., & Borzekowski, D. L. (2007). Children's television exposure and behavioral and social outcomes at 5.5 years: does timing of exposure matter? *Pediatrics*, 120(4), 762-769.
- Mohana, S. S., & Pushpabai, V. M. H. (2019). Innovative trend in cartoon channels with special reference to mobile app. *Animation*, 7(1),71-89
- Muzaffar, M., Chohdhry, S., & Afzal, N. (2019). Social Media and Political Awareness in Pakistan: A Case Study of Youth, *Pakistan Social Sciences Review*, 3 (II), 1-13
- Muzaffar, M., Yaseen. Z., Safdar, S. (2020). Role of Social Media in Political Campaigns in Pakistan: A Case of Study of 2018 Elections, *Journal of Political Studies*, 27 (2), 141-151
- Nansen, B., & Wilken, R. (2019). Techniques of the tactile body: a cultural phenomenology of toddlers and mobile touchscreens. *Convergence*, 25(1), 60-76.
- Neumann, M. M. (2020). The impact of tablets and apps on language development. *Childhood education*, 96(6), 70-74.
- Nigmatullayevna, A. U. (2022). Using cartoons to develop learners speaking skills. *Uzbek scholar journal*, 3, 1-3.
- Octavianti, M. (2021). The formulation of cartoon television shows for toddlers, preschoolers, and schoolers. *Review of international geographical education online*, 11(5), 130-138.

- Perween, S., & Hasan, H. (2020). The impact of cartoons on toddlers' language acquisition. *Language in India*, 20(2), 113.
- Qadri, M. R., & Akram, K. (2020). A study to investigate the role of youtube in language development of toddlers. *Competitive education research journal*, 1(1), 1-13.
- Rai, R. G. T. S. (2020). Effect of cartoons on children. *Jurnal ilmiah. Srilanka. University of moartuwa*.
- Raza, S., & Gondal, S. (2016). Impacts of cartoons viewing on the school going kids: Is Really a Trouble to contemplate. Available at SSRN 2827091.
- Rezeki, T. I. (2021). Children's language acquisition due to the influence of animation film. *English teaching and linguistics journal*, 2(1), 122-132.
- Saji, j. C. (2020). Cartoon and its effects on the language acquisition of children. *Mahatma Gandhi University, Kottayam*
- Shabiralyani, G., hasan, k. S., hamad, N., & Iqbal, N. (2015). Impact of visual aids in enhancing the learning process case research: district dera ghazi khan. *Journal of education and practice*, 6(19), 226-233.
- Sheikh, R. A. Negative effects of cartoon channels on children's socialization in pakistan. *Safer society for children*, 15. *Conference proceeding*
- Topping, k., dekhinet, r., & zeedyk, s. (2013). Parent-infant interaction and children's language development. *Educational psychology*, 33(4), 391-426.
- Vaala, S. E. (2014). The nature and predictive value of mothers' beliefs regarding infants' and toddlers' tv/video viewing: applying the integrative model of behavioral prediction. *Media psychology*, 17(3), 282-310.
- Wiltshire, C. A., Troller-renfree, S. V., Giebler, M. A., & Noble, k. G. (2021). Associations among average parental educational attainment, maternal stress, and infant screen exposure at 6 months of age. *Infant behavior and development*, 65, 101644.
- Yousaf, Z., Shehzad, M., & Hassan, S. A. (2015). Effects of cartoon network on the behavior of school going children (a case study of gujrat city). *International research journal of interdisciplinary & multidisciplinary studies*, 1(1), 173-179.
- Zimmerman, f. J., & cChristakis, d. A. (2007). Associations between content types of early media exposure and subsequent attentional problems. *Pediatrics*, 120(5), 986-992