



A CASE STUDY OF RAHIM YAR KHAN'S KINDERGARTENS ON RELATIONSHIP BETWEEN SCREEN TIME AND ENGLISH LANGUAGE DEVELOPMENT

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Abstract

The case study is qualitative in nature and aims at examining the connection between screen time and English language development among children enrolled in kindergarten, 4-6 years of age in Rahim Yar Khan, Pakistan. Within the framework of the growing digital media exposure during early childhood, the research problem focuses on how the length, the content type, and mediation of screen time affect the major language areas, such as vocabulary learning, pronunciation, comprehension, and early literacy. The study is based on the Sociocultural Theory, Cognitive Load Theory, and Multimedia Learning Theory to discuss the interaction between digital input and social scaffolding and cognitive processing in the early language learning. The data have been gathered in the form of observations, semi-structured interviews of parents and caregivers, and informal discussions with children in several kindergartens. Thematic analysis exposed that screen time is not necessarily harmful or beneficial, but the effects that it has depend on their mediated and structured nature. The results shown show that educational and age relevant online technology with restricted and predictable practices and guided by the active mediation of parents can improve receptive and expressive vocabulary in the English language, accurate pronunciation, and the confidence in using language. Conversely, too much, passive, and unsupervised viewing of the screen especially entertainment-oriented materials were linked to disjointed language, restricted attention, and poor understanding. The paper identifies imitation and paralinguistic learning as transitional processes during which children learn English using a screen as the first exposure. Nonetheless, significant language growth was most evident when the use of digital exposure was accompanied by communication and adult involvement and practice of real-world language. The research arrives at the conclusion that purposeful and guided screen use can enhance early development of English language in multilingual, however, caution is necessary: caregivers need to be aware, control content, and integrate both digital and traditional literacy activities.



Keywords: Screen time, English language development, Kindergarten children, Parental mediation, Vocabulary acquisition, sociocultural theory, Multimedia learning, Cognitive load, early childhood education, Qualitative case study

1. Introduction

The aim of this research is to explore the connection between screen use of kindergarten children and their development in English language. The term screen time is described as the number of hours spent using electronic devices like television sets, computers, tables and smartphones and video games (Ponti et al., 2017). It consists in active screen time, interactive and physical, and passive screen time, or video-watching (Sweetser et al., 2012). It has been proposed that too much screen-time can be harmful to language development, as it takes away the chance to engage in meaningful parent-child time (Bhutani et al., 2023). Children subjected to excessive screen time tend to interact less with people and face to face communication, which is vital in early language development (Canadian Pediatric Society, 2017).

The process of language development is highly influenced by the social context of a child, and the direct interactions are considered the key to the development of speech and vocabulary (Piaget, 1954; Vygotsky, 1978). Research points to the conclusion that screen time longer than two to three hours a day is linked to language development delay and behaviour issues in young children (Lin et al., 2023; McArthur et al., 2021). Even though there are digital platforms, which can facilitate language learning in case of proper use, it is the guided interaction with caregivers, which is the most effective way to establish early childhood learning. Accordingly, it is important to comprehend how to balance between screen time and social interactions to promote healthy development of English language among kindergarten children.

1.1 Need and Significance of the Research

The impact of the screen time on the development of the English language within children is a growing issue in terms of the high rates of the spread of digital media. The case study examines the effects brought by the exposure of kindergarten students to different forms of media on language learning. Although the use of educational media can aid the learning process, too much or improper use of the screens can interfere with verbal communication and intellectual activity (American Academy of Pediatrics, 2016). Healthy language development requires balanced screen rules, involvement of parents, and interactive language development activities (reading and storytelling) (Hirsh-Pasek et al., 2015).

1.2 Research Objectives

1. To explore the screen time and language development of kindergarten kids.
2. To evaluate the relationship between the duration of screen time and specific language skills including vocabulary development, comprehension and expressive language.
3. To suggest research-based recommendations for the positive use of screen for English language development.

This paper discusses the influence of screen time in particular language-specific skills, which include the potential impact of high-quality content to the vocabulary, comprehension, and expressive language, but there may be a negative effect on vocabulary and comprehension. The existing research confirms the associations between the long TV screen use and the language delays in early childhood (Hirsh-Pasek et al., 2015; Ibrahim, 2023; Dewi et al., 2023).



2. Background of the Study

2.1 Theoretical Framework

A number of theoretical frameworks have been used to explain the effect of screen use on the development of English language among young learners based on cognitive, social and linguistic processes. The exposure to the screens influences the vocabulary, pronunciation, and comprehension in the digital learning setting, which can either promote or inhibit the early language acquisition with the quality of interaction and context (Massaroni et al., 2023; Ohtarina, 2024).

2.1.1 Social Interactionist Theory

The Social Interactionist Theory is based on the premise that language is constructed through mediated interaction with more knowledgeable people, including caregivers and teachers, who scaffold the language of children (Lev Vygotsky, 1978). Cognitive and linguistic development is thus motivated by social conversation and activities. The screens add more linguistic input with educational programmes, storybooks, and multimodal exposure with interactive applications (Simply Psychology, 2024; Gowrie NSW, 2024) in the digital realm. Nevertheless, when the use of the screen is overly extended with very little interaction with the human being, the effect that the social scaffolding can help may be deterred, preventing meaningful language acquisition. The implementation of the Social Interactionist Theory to screen learning can be used to assess possible risks of development and potential risks of digital media in education among children (Mahn and John-Steiner, 2012).

The Zone of Proximal Development (ZPD)

The zone of Proximal Development by Vygotsky elaborates how children learn languages through facilitated tutelage of more experienced people. On the one hand, research indicates that human input is critical despite the ability of digital tools to provide structured input. When parents watch particular videos with their children and actively discuss the content, vocabulary retention and understanding are greatly superior to when they are passively viewing the screen (Simply Psychology, 2024b; Alroqi, Serratrice and Cameron-Faulkner, 2022). Scaffolding involves temporary support from a more knowledgeable other to advance understanding. Face-to-face interaction enables feedback, expansions, and questioning. Digital tools can offer prompts and repetition, yet evidence shows mediation is superior. Children engaging in parent-led digital storybook discussions show vocabulary and language gains than independent users (Marilena Savva, 2024).

The digital media and its advantages have also introduced a number of challenges to language teaching. Educational tools based on the screen that involve interaction with the students provide an effective vocabulary development not only enhancing the quality of pronunciation and reading skills as suggested by Mahesh et al. (2024) but also passive exposure to screens impairs the development of a child in the language proficiency skill.

The social development of the children and language development are enhanced when children use the interactive screens to interact with each other via apps or digital tutors and video chats. Passive screen exposure methods (TV or YouTube videos) can provide linguistic exposure but due to lack of social support, this process is less effective as a language learning tool as proposed by Konca (2021).



There have been numerous studies, using Social Interactionist Theory, to determine the influence of screen length on language development. Karani asserts that children that applied digital storytelling applications under parental supervision showed better vocabulary acquisition and retention compared to those who applied same programs without guidance. Although the viewing of the entertainment-based displays did not have a significant impact on the language learning, the research of Abid et al. (2024) showed the extent of the well-produced instructional media with respect to phonemic comprehension and pronunciation ability. Gernsbacher (2015) asserts that education on words and pronunciation ability among children was best improved when their parents stopped the movies to discuss the key learning areas.

2.1.2 Cognitive Load Theory

According to Swellers Cognitive load theory, efficiency of learning is determined by the ability to handle intrinsic, extrinsic and germane cognitive load. Intelligent digital contents that include multimedia may overload the working memory of the young learners, making them less likely to process and store the language input in an effective way, especially in the context of early childhood (Sweller, 2019). Cognitive Load Theory emphasizes that language learning on a screen has to be instructed carefully. Digital tools that are visually congested and fast-paced can overload working memory and result in a decrease in vocabulary storage and understanding. There is evidence of the advantages of simplified multimedia storybooks compared to overly animated content, which demonstrates the necessity of well-structured and well-scaffolded digital materials (Asma and Dallel, 2020).

The development of early vocabulary in English language can be supported with the help of properly designed digital tools based on repetition, context, and multimodal inputs. Nevertheless, too much thinking decreases the retention. Multiple animation and sounds in the apps can distract learners, and orderly tools that present one word at a time with images and clear pronunciation can facilitate learning vocabulary. This idea is supported by the research of Wen and Naim (2023) on the Multimedia Learning Theory, which states that minimizing non-essential cognitive stimuli and preserving the focused linguistic input improves the word recognition and long-term memory among young learners.

Learning of pronunciation requires correct phonetic perception and repetition. This can be supported by the use of the screen-based tools provided that cognitive load is properly controlled. Accuracy may be slowed by excessive demands, including rapid repetition and detailed instructions, and step-by-step listening, repetition, and feedback are the most effective to optimize the germane load and develop phonemic awareness (Nasim, 2022). Comprehending is about processing and use of knowledge in a contextual manner. This can be aided by use of digital tools in form of interactive stories and videos, however too much multimodal input can be a visual overload. It has been found out that captions and narration at the same time hinder understanding. Story-based sessions and co-viewing with caregivers contribute to lowering cognitive workload and enhancing the engagement and retention (Kaban, 2021). Literacy emergence needs the identification of letters, decoding words and sentence structure. Digital tools prove to work in cases where the cognitive load is managed. Games that are too complicated may overwhelm learners, but it can be overcome by structured programmes moving through sounds to sentences and having a guided read-aloud characteristic that can promote word recognition and phonemic awareness without cognitive overload (Pham et al., 2024).



Managing Cognitive Load in Screen-Based Language Learning: Best Practices

2.1.3 Multimedia Learning Theory

The Multimedia Learning Theory by Richard Mayer, is a concept that illustrates how a learner interprets and memorizes the information he observes or hears. This theory is premised on the dual-channel assumption, according to which language and non-language information is processed in interrelated but distinct systems in the brain. Multimedia instruction may be used to improve vocabulary, pronunciation and comprehension of English language learning when texts, pictures, and audio are well incorporated. Nevertheless, overload or improperly structured online input can lead to superficial learning especially among young learners in case active learning and thinking is not properly facilitated (Mayer, 2024).

The use of digital multimedia materials in the development of vocabulary among young learners is through the use of visual, auditory, as well as interactive resources. The Picture Superiority Effect demonstrates that the retention of words is higher when children have images in the case of text (Paivio, 2019). The concept of dual-coding also describes the effects of visual-verbal integration and its role in increasing retention (Paivio, 2013). Repeating and rewarding are other powerful methods that are enhanced by gamified digital activities (Avila and Fonseca, 2021). Nonetheless, a high level of animations, background music, and text provided on-screen can lead to cognitive overload, which restricts the ability to acquire new vocabulary (Babazade, 2024). Digital tools that support pronunciation include phonics applications, speech recognition software and AI tutors, which are audio-based. Multimedia Learning Theory has it that a combination of sound and visual stimulation promotes phonemic awareness and accuracy of articulation. Real time correction is also supported by interactive feedback. Nevertheless, children can support wrong patterns without being guided, which is why it is essential to balance active human support and digital pronunciation aids (Pennington and Rogerson-Revell, 2018).

Comprehension of reading relies on active listening to text. Effective multimedia may be used to facilitate the comprehension process with the help of scaffolded narratives, illustrations, and customisable systems that individuate reading on the reader side (Richard Mayer, 2022). Nevertheless, passive multimedia exposure does not encourage further understanding of the topic, since children learn better when they get to discuss and be guided instead of simply watching the screen (Sani Sami Alkhasawneh, 2013). Although multimedia-enriched learning has its advantages, there are a number of limitations that should be taken into consideration. The over use of text, image and audio at the same time may lead to cognitive overload where less is retained instead of learning (Richard Mayer and Moreno, 2003). Online technologies also decrease the necessary social interactions, because the effective language development depends on the directed conversation and mutual viewing with adults. Also, passive consumption of screen does not allow people to engage actively, and inequality in the provision of high-quality educational resources can increase the gaps in the development of language between socioeconomic groups.

2.2 Review of Contemporary Studies

The effects of screen time on the language development of young children have been recently studied with the results varying according to the content of the screen, the length of time and parental intervention.

Recent studies show that the well-organized screen time may positively influence the early development of English language in case it is used reasonably and purposefully. Properly



developed digital solutions such as education videos, interactive applications, and adaptive learning platforms can improve vocabulary learning, the accuracy of pronunciation, and understanding in kindergarten learners (Panjeti-Madan and Ranganathan, 2023):

Digital media has an important implication on enhancement of early vocabulary acquisition through repetition and contextualisation of exposure to words. The interactive literacy applications have demonstrated to enhance word recognition, recall, and long-term retention among the preschool children (Rohlfing, Wildt and Tolksdorf, 2024). Associations of words are fortified by multimedia features like pictures, arrangement, and interactive guidelines which allow more intensive processing of lexical contents. On the same note, digital storybooks with a combination of voice instructions and highlighted texts improve vocabulary comprehension via multimodal input (Yang et al., 2024). The use of AI-based applications also personalises the learning of vocabulary based on the level of development of a child, resulting in better results (Tiwari et al., 2024).

Screen-based tools are also useful in enhancing the pronunciation skills. The video tutorials with subtitles help to achieve phoneme recognition and the accuracy of pronunciation by matching the visual text with spoken language (Sun, 2023b). The speech-recognition technologies give immediate corrections and learners have the ability to improve pronunciation in a manner that conversation can help (Alkhasawneh, 2013). Also, AI-based storytelling systems have been identified to improve phonemic awareness, rhythm in speech, and articulation over text-only methods of teaching (Massaroni, 2024).

Interactive animations and augmented reality (AR) as digital storytelling tools are very useful in enhancing listening and reading comprehension. Youngsters who read animated storybooks have a superior grasp of how sentences are structured, how narratives unfold, and contextual significance when compared to other learners who read traditional printed books (Massaroni, 2024). Adaptive digital books also have the capability of facilitating inferential reasoning by adapting the level of difficulty depending on the performance of the learners. AR-based storytelling also boosts the contextual inference through the ability to immerse children into simulated communicative environment (Cheng and Tsai, 2012).

Engagement and motivation are the major factors which bring about language acquisition and the interactive applications and gamification learning environment enhance these two elements. Rewards, tracking the progress, and receiving immediate feedback are the features that encourage persistence and positive attitudes to English learning in gamified reading programmes (Massaroni, 2024).

Although too much screen time is dangerous, guided and moderately screen time have positive linguistic performance. The studies emphasize the role of co-viewing, mediation by adults, and combining digital learning with traditional literacy (Madigan et al., 2020; Neuman and Neuman, 2019). Under the recommendation of the American Academy of Pediatrics, screen time on quality contents helps in language growth without any negative implications (AAP, 2020).

2.3 Negative Effects of Excessive Screen Time

Although formal, interactive online resources may be effective in the process of learning the English language, the overall overexposure and passivity in front of the screen have been repeatedly linked to the adverse developmental results in early childhood. The long-term screen time, especially non-interactive screens, such as watching background television, is associated



with slow expressive speech, less strong literacy background, decreased attention, and diminished social communication skills (Christakis et al., 2021; Madigan et al., 2020).

Too much passive screen time limits the adult-child interaction time, necessary in development of expressive language. Christakis et al. (2021) discovered that infants and toddlers who were exposed to more non-interactive television started speaking later, and they produced less words. Equally, Denison et al. (2019) have found that language fluency is reduced in toddlers with high screen exposure as compared to those who take frequent conversations with their caregivers. Background television has also been found to lower the quality and quantity of child speech during family interactions (Linebarger and Vaala, 2010).

Increased screen time has been associated with worse early literacy skills, such as phonological awareness, letter recognition and reading comprehension. Madigan et al. (2020) conducted longitudinal research to reveal that children with high screen exposure have had poorer performance in literacy in preschool years. The neuroimaging research also indicates that too much screen time can have an adverse impact on the brain networks related to language and reading progress (Hutton et al., 2020). Such literacy gaps are also caused by a decreased use of print-based activities like reading shared books and working on handwriting (Wolf et al., 2021).

Prolonged screen time, especially to high-paced multimedia materials, has been linked to shorter attention attentional capacities, as well as greater cognitive load. Nikkelen et al. (2019) have found that there are attention problems in children who have more than two-hour phone and screen time per day. In terms of the Cognitive Load Theory, excessive stimulation of the digital world saturates the working memory negatively affecting the acquisition of vocabulary and comprehension (Sweller, 1988). Lillard et al. (2021) also added that rapid visual and auditory stimuli deteriorate attention to the children when using long-lasting language activities.

Turn taking, interpretation of tone and interpretation of non-verbal cues are also pragmatic skills required to achieve language competence. Screens are overused, which substitutes an in-person interaction that is required to foster these abilities (Kirkorian et al., 2021). Children who watch more screens show reduced conversational skills and the inability to decode the contextual meaning, sarcasm, and emotional expressions (Reid Chassiakos et al., 2020; Roche et al., 2019).

Exposure to screens prior to sleep interferes with sleep quality, thus, interfering with memory consolidation that is critical in language learning. Leone and Sigman (2020) had a result that showed lower vocabulary retention and sentence processing with reduced REM sleep. Exposure to blue-light inhibits melatonin, resulting in a decreased duration of sleep and low verbal performance (Carter et al., 2021; Hale and Guan, 2019).

The best way to avoid these risks, as the experts suggest, is to not spend as much time on screens, use it interactively, and engage in adult mediation. American academy of paediatrics recommends High-quality screen time of not more than one hour per day in children between the ages of 2-5 (AAP, 2020). The use of screens must be used in addition to the traditional literacy activities and socialization, but not in place of.

2.3 The Role of Parental Mediation

The parental involvement is the important parameter that defines the relationship of screen-based learning as either contributing or detrimental to the overall language development. The studies also demonstrate that the combination and facilitated engagement enhances the vocabulary and



understanding, whereas unsupervised screen exposure undermines the conversational abilities (Lauricella et al., 2022; Pila et al., 2023).

Co-viewing in digital content allows caregivers to engage with digital content by asking questions, explaining words, and relating digital content to real-life experiences. It has been discovered that when parents pause the content and have a conversation with children, children learn new words better (Strouse and Ganea, 2021). These results are also congruent with the Social Interactionist Theory by Vygotsky, which puts a heavy emphasis on guided learning (Vygotsky, 1978). Uncontrolled use of the screen impairs conversation and complex grammar in the speech of children (Linebarger and Vaala, 2010; Christakis et al., 2021). Children with exposure to unregulated digital media show weaker turn taking and expressive language abilities (Madigan et al., 2020). The most effective results are obtained when active mediation, regulating screen-time, and combining digital and real-life language tasks are involved (Neumann, 2020). Nevertheless, socioeconomic differences affect parental mediation ability, which is why the policy support and parental education programs are necessary (Pila et al., 2023).

2.3 Key Themes

2.3.1 Vocabulary Acquisition

The ability to acquire vocabulary is one of the primary parts of the initial development of the English language, and studies emphasize that the manner of screen time use is more important than merely the duration of screen time. The learning tools that are interactive and based on the screen always exhibit positive outcomes in terms of vocabulary development as opposed to passive media exposure. Research shows that the preschoolers engaging in interactive digital storybooks with audio narrations and touch-responsive functionalities get a better vocabulary retention and recall (Strouse and Ganea, 2021). The results would correlate with Multimedia Learning Theory, which states that Word learning is better achieved by combining visual, audio and textual stimuli provided that cognitive load is properly controlled (Mayer, 2005).

Voice-recognitions and Phonics based apps further provide participation to vocabulary learning through active engagement and phonological awareness (Neumann and Neumann, 2019). On the same note, the children who are exposed to interactive digital storybooks excel those who only use print materials since multimedia environment enhances word-meaning associations (Suggate et al., 2020). Nevertheless, development of vocabulary decreases with passive screens. The situation is that in long-term television exposure, lower values of receptive vocabulary and less communicative opportunities are observed (Linebarger and Vaala, 2022; Christakis et al., 2021). Evidence on meta-analysis proves that conversational input, which is vital in lexical development, is decreased by excessive passive use of screens (Madigan et al., 2020). The mediating role of dialogic interaction in the vocabulary learning is very significant. Screen activities facilitated by the caregiver through questioning, clarification, and discussion have a significant character on vocabulary retention (Bowers et al., 2023). These results are consistent with the Social Interactionist Theory which focuses on learning based on guided interaction with other more knowledgeable individuals (Vygotsky, 1978). Also important is the quality of the content: educational apps and even subtitled videos contribute to better acquisition of vocabulary in comparison with media aimed at entertainment (Pila et al., 2023; Fletcher and Nielsen, 2020). All in all, studies have shown that digital vocabulary learning may be the most efficient in case it is



used in conjunction with in-person discussion and mutual meaning-making (Lauricella et al., 2022).

2.3.2 Pronunciation

Digital technologies have great potential in the development of the pronunciation skills, in particular AI-based tools and interactive media. The speech-recognition software offers real-time feedback, which allows the children to make the phonetic accuracy refining more effective than traditional phonics teaching (Sun and Yang, 2021; Zhao et al., 2022). The use of interactive video-based learning involving the use of verbal repetition also improves the articulation and intonation, which facilitates dual-channel processing (Ellis et al., 2023). Gamified pronunciation aids also enhance the practice rate and confidence of the learner. Phonological awareness is enhanced through games where phonemes have to be matched and the problems with pronunciation (Chen et al., 2022). There are however restrictions that the use of digital tools poses at the expense of face-to-face interaction. The children who are too screen dependent have poor phonemic awareness because they lack conversational practice (Gilkerson et al., 2022; Madigan et al., 2020). Active practice is necessary because passive exposure cannot lead to an increase in pronunciation (Roseberry et al., 2021). The involvement of parents and teachers is very important. Phonic outcomes are significantly enhanced through guided practice of pronunciation when completing co-viewing and integrating in a classroom (Lauricella et al., 2022; Rebello et al., 2022). The results of research always show that digital pronunciation tools can be most useful in case of their use with traditional oral interaction but not as independent instruction methods (Neumann, 2021; Hartshorne et al., 2018).

2.3.3 Comprehension

Early literacy development involves the child having the ability to deconstruct spoken and written words, extract meaning and comprehend narrative form. Interactive storybooks, e-books, and instructional videos are the digital tools that can help with comprehension, however, overexposure to the screen or high-speed exposure can lower attention and better understanding. According to research, interactive devices in digital storytelling aid in the better comprehension of the story by using images, audio, and text, which suggests dual-channel processing (Vackova, Cermakova and Kucirkova, 2023; Mayer, 2005). The use of narrated e-books proves to remember the key points and details of a story better than one using only print-based materials (Wong and Neuman, 2019). Nevertheless, rapid changing animated material and passive viewing have negative effects on understanding as they overload the cognitive resource (Linebarger and Vaala, 2010). Research also reveals that active interaction, including responding to questions and discussing the material, results in more favorable results of understanding in comparison with passive screen time (Abbas, 2023). Co-reading and teacher-led discussion are very effective in enhancing inferential reasoning and narrative comprehension with parental and teacher involvement (Dore et al., 2018; Zhou and Yadav, 2017). All in all, a combination of digital and traditional reading yields the best understanding of information.

2.3.4 Literacy Skills

Digital use shapes literacy as one develops through reading and writing. It has been demonstrated that blended print-digital programmes enhance reading, but too much screen replacement undermines literacy (Mol, Bus and De Jong, 2009; Abbas, 2023). On the whole, the amount of



time spent before the screen can be positive or negative in terms of content quality, engagement of the learner, parental guidance, and the level of control.

3. Research Methodology

This chapter gives the qualitative approach to investigate the association between screen time and English language growth among kindergarten children in Rahim Yar Khan, Pakistan. The study provides a case study method and utilizes the observations and interviews, as well as analyzes vocabulary, comprehension, and expressive language using the case study method, ethical considerations, data analysis, and credibility of the research.

3.1 Research Design and Rationale

This qualitative case study seeks the impact of screen time on English language acquisition in kindergarten children in Rahim Yar Khan, where observation, interviews, and discussion are taken care of in order to provide contextual depth and credibility.

3.2 Population, Sampling, and Participants

In this study, purposive sampling is utilized in the selection of information-rich participants with regard to the area of focus of the research. The sample will consist of 20 kindergarten children aged 4-6 in both public and private schools of Rahim Yar Khan, Pakistan and their parents or the primary caregivers. This two-participant design allows studying the language behaviour of children and at the same time gathering the knowledge of caregivers regarding the use of screens. The participant safety and research credibility is guaranteed by the ethical practices, informed consent, and age-suited and non-intrusive data collection (Patton, 2002).

3.3 Data Collection Methods

In line with its qualitative orientation, the study employs more than one data collection to provide triangulation of the findings: naturalistic observations, semi-structured interviews, and informal discussions with children. The actual behaviours of screen language and language change are recorded through observations, caregiver views on screen use and language change are recorded through interviews, and spontaneous use of vocabulary through informal child conversations. Collectively these approaches provide a contextual and rich insight into the role of screen exposure in the development of English language in kindergarten children in Rahim Yar Khan.

3.4 Triangulation and Trustworthiness

The triangulation methodological approach based on observations, interviews, and conversations enhances the credibility level of the study because it ensures the confirmation of patterns in the data sources. A combination of behavioural and verbal evidence is more appropriate because of the complexity of the language development process than when only a single method is used.

3.5 Data Analysis Strategy

Qualitative research data must be tough and sensitive to the context in which such data was developed. Since the collected information is diverse in its character, featuring both the observational notes, the semi-structured interviews transcripts, and informal discourse with children, the given research will utilize the thematic analysis technique to identify the important patterns and findings concerning the relationship between the screen time and the development of English language in kindergarten children.

3.6 Ethical Considerations

This study is anchored on ethical integrity, especially because the researchers will be dealing with young children. Before collecting the data, it will be ethically approved. Parents or caregivers will



be informed and their voluntary involvement and the right of withdrawal ensured. Data coding and storage will be conducted with the strict confidentiality and anonymity. In Rahim Yar Khan, child welfare will be given priority by using non-intrusive and supervised interactions and the research will be culturally sensitive.

3.7 Trustworthiness of the Study

Validity and reliability are substituted with trustworthiness in qualitative research because it confirms credibility, dependability, confirmability as well as transferability. Triangulation and member checking make this study more credible, audit trails enhance dependability, reflexive journaling is used to strengthen credibility, and the rich contextual description makes the study more transferable and thus the rigorous and ethical investigation of screen time and early language development.

4: Results and Discussion

4.2 Theme 1: Routine and Nature of Screen Time

One of the main conclusions was the normal nature of screen media in the lives of children. All the eight participants at the age of 4-6 used screens frequently (1-3 hours per day) using smartphones, tablets, or TV. Screen time used to be planned after school or during domestic chores and served as a regular support and an instrument of interaction. As an example, Sara (4.8) was a very proactive singer who sang and repeated phrases in Cocomelon, whereas Hamza (6.1) was a rewarding screen time user who translated vocabulary in Blippi into play. These examples demonstrate that age-adjusted and well-informed and monitored screen use can promote active usage of vocabulary instead of passive one.

4.3 Theme 2: Vocabulary Acquisition Through Media

One of the greatest discoveries of the current research was the apparent acquisition of the English vocabulary directly proportional to what appeared on the screens. Participation in all showed to some degree the ability to repeat or apply English words and phrases heard and read in digital media. These were cartoons, educational YouTube channels and even mobile applications which were geared towards early learning. The development of receptive and expressive language appeared to be quite an easy task due to the regular exposure to the audio-visual material in English even when the target population was non-English speaking.

The Reproduction of Contextual Language

The exposure that Zainab received to Peppa Pig and Dora the Explorer on a daily basis enabled her to use English contextually and with confidence during play and learning. The fact that she can reuse and teach phrases shows she has an extensive piece of language processing and it is true that high-quality educational media can be used to facilitate expressive vocabulary and social communication (Linebarger and Piotrowski, 2009).

Sample 1 and Object-Word Recognition through Repetition

Noor, a 4.6-year-old child who attends a school with lower fees exhibited a significant object-word recognition and early understanding with exposure to educational programmes of Masha and the Bear and word party. She correctly read basic instructions in English, and used new vocabulary in day-to-day activities, which is evidence of significant transfer of vocabulary. This is in line with vocabulary development models that focus on repetitive and contextual exposure (Senechal and LeFevre, 2002). Noor moved beyond the level of imitation which means she had a semantic awareness, early and with the assistance of light scaffolding of parents. Her development also



indicates the Input Hypothesis put forward by Stephen Krashen that emphasizes on comprehensible and engaging input in the learning of natural language (Krashen, 1985).

4.4 Theme 3: Imitation and Language Use in Context

In addition to learning vocabulary, an excellent aspect was observed among the participants, and unprovoked repetition of phrases, tones and expressions, which they heard, when they looked at the screen. This imitation did not merely content itself with the remote repetition of words, the children, in reality, tries to use entire expressions, the way of asking questions, giving orders, and making exclamations in their day-to-day conversation in the classrooms as well as in the homes.

Sample 2 and Expressive Peer Interaction through Imitation

Hamna was also exposed to Cocomelon and Dora the Explorer very often, which resulted in a successful acquisition of the ability to correctly pronounce and use English phrases with the correct tone and gestures. This agrees with Social Learning Theory that media role models are capable of encouraging pragmatic use of language and social communication during early childhood (Bandura, 1977).

Sample 3 and Paralinguistic Learning from Role-Play

As a 5.7-year-old child, Ahmed was a habitual mimic of English phrases on programmes like Blippi and Paw Patrol, and used them with a great deal of enthusiasm in pursuit of pretend play. He replicated tone, pitch, and dramatic pauses in an excellent way demonstrating high levels of phonological and paralinguistic awareness. Nevertheless, he had a weak grasp of the proper contextual applications. This is indicative of results that even prior to attaining a complete semantic control children are able to learn quality patterns of sounds and expressive characteristics of the media (Krcmar and Curtis, 2003). Imitation served as a rehearsal practice, which instilled confidence and aided in the shift between receptive to expressive language especially with the mediation of adults (Zimmerman et al., 2007; Vygotsky, 1978).

4.5 Theme 4: Role of Parental Mediation

Parent involvement was found to be a crucial moderating factor in defining the effect of screen time on the development of English language by children. Though screen content was not explicitly used as an educational resource by the majority of parents, their levels of mediation in the form of content selection, co-viewing media content, and post-video discussion had a profound influence on the quality and outcomes of the screen activity by the child.

Sample 4 and the Benefits of Active Parental Mediation

The case of Maheen demonstrates that effective transformation of screen time into language learning through active mediation by parents was achieved. Forming sentences and using English with confidence and with little fear was possible through co-viewing, questioning, and repetition, which were scaffolded learning principles (Lev Vygotsky, 1978), and active mediation models (Valkenburg et al., 1999).

Sample 5 and the Impact of Unmonitored Screen Time

The lack of structure and supervision in the use of the screens by Fahad resulted in the disjointed and false English despite the high confidence level. Unmonitored mixed-language material led to learning imitation without comprehension. This promotes the data that unmonitored screen time may result in shallow or misguided language acquisition, showing the importance of mediation and proactive scaffolding by the parents to transform the digital input into the useful language development (Radesky et al., 2016; Valkenburg et al., 1999).



Sample 6 and the Impact of Educational Content

Zara was exposed to educational programmes like Alphablocks which helped in phonics, vocabulary and use of contextual language. Her word recognition and clear speech are signs of evidence that structured educational media enhances early literacy based on predictable as well as scaffolded linguistic input (Linebarger and Walker, 2005).

Sample 7 and the Limits of Entertainment-Based Exposure

Usman is a 5.6-year-old boy whose favorite cartoons were mostly action-based cartoons, including Tom and Jerry and Ben 10, which was highly visual and allowed minimal verbal interaction. During play, he used short English phrases but he demonstrated weak expressions at classes. This confirms the idea that the non-educational media does not have language scaffolding and has little or no language advantages unless mediated by adults or substituted with educational materials (Neuman and Koskinen, 1992; Linebarger and Walker, 2005).

4.7 Theme 6: Attention Span and Language Retention

One of the main discoveries of the research is that the attention of children when they spend time on the screen depends on the type of content, parental control, and personal temperament, which predetermine the language results. Daniyal, 5.8 years old, viewed action cartoons at a fast pace and appeared very engaged with them but with little to no expressivity in English and did not produce very long phrases. His teacher noticed that he was having poor sentence structure although his comprehension is good. This reinforces the fact that non-educational media do not have much benefits in terms of language (Neuman and Koskinen, 1992). It is demonstrated that vocabulary and syntax development are more effectively supported by educational programmes that are repetitive and involve a well-organized dialogue (Linebarger and Walker, 2005).

Interrupted Viewing and Limited Recall: Sample's Case

Here, it is evident that divided and passive screen time inhibits language learning and application. The results of interrupted attention undermine memory consolidation, and repetitive viewing, supported by parental follow-up improves vocabulary and syntax development. On the whole, the quality of attention, repetitions, and post-viewing interaction are the factors that define the success of the input to the screen in meaningful, long-term language learning (Lillard et al., 2015).

5: Discussion and Conclusion

5.1 Overview

The chapter summarises the results of a qualitative case study of the role of screen time in English language learning in kindergarten children in Rahim Yar Khan. It uses observations and interview with caregivers, to analyze the relationship between content type, routines and parental mediation on the development of language. The discussion positions six emerging themes as per existing literature and sociocultural viewpoints, prominently that of Lev Vygotsky focusing on the importance of interaction that provides implications and recommendations without attempting to generalise statistically.

5.2 Discussion of Key Findings

5.2.1 Structured Screen Time and Daily Routines

The organisation of the screen time became a central theme, as the majority of families inculcated media use into sensible daily schedules. Children like Sara and Hamza linked certain periods of time with the input in English language, which underlies gradual familiarisation with vocabulary. This goes in line with studies that focus on routine habits in media consumption (Kabali et al.,



2015; Radesky et al., 2016). Limited exposure that is predictable lowered cognitive load and facilitated learning in the Zone of Proximal Development that was introduced by Lev Vygotsky, which mentions the importance of slow and purposeful screen time.

5.2.2 Vocabulary Gains and Comprehension Through Media

Vocabulary among children that were exposed to educational English media was found to be improved. Zainab, Noor, and Zara did not repeat words but used them in their context. This evidences that structured programmes have been shown to ease receptive and expressive vocabulary by means of repetition and visual scaffolding (Linebarger and Walker, 2005). However, screen input contributed significantly to early learning just in basic vocabulary meaning that it helps only when also enhanced by human interaction and practice across the settings.

5.2.3 Paralinguistic and Imitative Learning

One of the significant themes that can be spotted due to this research was paralinguistic imitation whereby children not only mimicked words in English but also tone, rhythm, pitch, gesture, and style of expression of people on the screen. Children like Hamna and Ahmed were seen to replicate emotionally colored roles found in programmes such as Dora the Explorer and Blippi, and in the process of play, they used phrases with exaggerated intonation and gestures. This is in line with the Social Learning Theory by Albert Bandura who argues that one learns by observing and imitating. Imitation was found to reduce anxiety and boost confidence, which formed one of the ideas of the affective filter of Stephen Krashen. Nevertheless, imitation was not always grammatically correct and contextually appropriate, which indicates the necessity of scaffolding on the part of adults. All in all, imitation was a transitional period, where the children could practice using English in a social manner, prior to becoming more accurate in their use of language and make it meaningful.

5.2.4 Parental Mediation and Scaffolding

The mediation of parents became a decisive factor in the formation of the impact of screen time on the development of English language. The active mediation that was observed in the case of Maheen was co-viewing; questioning; repetition and discussion that changed screen exposure into dialogic learning. This is an indication of the idea of scaffolding as developed by Lev Vygotsky, where the use of language by a child is assisted by adults until the child acquires the ability to do so independently. Conversely, the screen use of Fahad was mostly random and therefore he ended up acquiring fragmented and contextually inaccurate English which reflects that exposure is not always a guarantee of significant learning. Such results are consistent with evidence that the presence of the adult when using the media strengthens the expressive and receptive vocabulary (Neuman and Roskos, 1993; Nathanson, 2001). Another aspect that the research brought out was the variations in parental awareness, cultural orientation towards English, and gendered mediation patterns. On the whole, intentional parental involvement resulted in the best role of language gains whereas passive listening resulted in superficial language use and hence caregiver awareness and simple scaffolding measures are very important.

5.2.5 Educational vs. Non-Educational Content

The major difference in the present study was the type of content with educational media generating better language results than content based on entertainment. Children such as Zara and Noor who have been exposed to organized programmes on phonics and vocabulary were able to recognize words, comprehend and apply them into real life situations. This corroborates the



research that the literacy of the initial years is enriched by pedagogical designed content (Linebarger and Vaala, 2010). Conversely, children whose primary exposure was to action-based cartoons had discontinuous and emotion-based language use and poor grammatical development. In general, the results prove that the dependence of linguistic gains is rather on the quality of the content, the speed, and interactivity than the time spent on the screen, which emphasizes the role of a purposeful choice of content.

5.4 Recommendations

In this research, it has been presented that screen time may be beneficial to promote the growth of the English in case the content is educational, time is controlled, and adults participate. Teachers ought to incorporate known media in the lessons, promote guided imitation, assist struggling students, and work together with parents to scaffold language learning.

5.5 Conclusion

This study explored how screen time influences English language development among This paper has examined the effects of screen time on the development of English language among kindergarten children in Rahim Yar Khan, and it has been shown that digital media is not harmful or beneficial, per se. The results indicate that the results of language are based on the quality of the content, viewing routines, and adult scaffold. A number of six themes were identified such as vocabulary learning, imitation, parental mediation and attention. Children who were exposed to educational materials where there was active involvement of the caregivers had better expressive and receptive language development in line with the social cultural beliefs which highlight the importance of guided interaction (Lev Vygotsky). On the other hand, too much and uncontrolled screen time result in discontinued language. In general, the experiment highlights that the intentional and mediated use of screens can facilitate the acquisition of the English language in the multilingual setting when carefully implemented into the learning environment of children.

References

- Abid, T. et al. (2024) Effects of screen time and phonemic segmentation in school going children. *Journal of Health and Rehabilitation Research*, 4(1), 1514–1518 <https://doi.org/10.61919/jhrr.v4i1.650>
- Alroqi, H., Serratrice, L. and Cameron-Faulkner, T. (2022) The association between screen media quantity, content, and context and language development. *Journal of Child Language*, 50(5), 1155–1183 <https://doi.org/10.1017/s0305000922000265>
- American Academy of Lev Vygotsky's Theory of Child Development - Gowrie NSW (2024) <https://www.gowriensw.com.au/thought-leadership/vygotsky-theory>
- Asma, H. and Dallel, S. (2020) Cognitive Load Theory and its Relation to Instructional Design. *Arab World English Journal*, 11(4), 110–127 <https://doi.org/10.24093/awej/vol11no4.8>
- Avila, M.O.C. and Fonseca, G.I.C. (2021) Gamification: How does it impact L2 vocabulary learning and engagement? *Electronic Journal of Foreign Language Teaching*, 18(2) <https://doi.org/10.56040/ghcc1824>
- Babazade, Y. (2024) The impact of digital tools on vocabulary development in second language learning. *Journal of Azerbaijan Language and Education Studies*, 1(1), 35–41 <https://doi.org/10.69760/jales.2024.00103>
- Bandura, A. (1977) *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall



- Bhutani, P., Gupta, M., Bajaj, G., Deka, R. C., Satapathy, S. S. and Ray, S. K. (2023) Is the screen time duration affecting children's language development? – A scoping review. *Clinical Epidemiology and Global Health*, 25 <https://doi.org/10.1016/j.cegh.2023.101457>
- Canadian Pediatric Society (2017) Screen time and young children: Promoting health and development in a digital world. *Pediatric Child Health*, 22(8), 461–477 <https://doi.org/10.1093/pch/pxx123>
- Cheng, K.-H. and Tsai, C.-C. (2012) Affordances of Augmented Reality in Science Learning <https://doi.org/10.1007/s10956-012-9405-9>
- Dewi, P. D. R., Soetjningsih, Subanada, I. B., Utama, I. M. G. D. L., Artana, I. W. D., Arimbawa, I. M. and Nesa, N. N. M. (2023) The relationship between screen time and speech delay in 1–2-year-old children. *GSC Advanced Research and Reviews*, 14(2) <https://doi.org/10.30574/gscarr.2023.14.2.0039>
- Dore, R. A. et al. (2018) The parent advantage in fostering children's e-book comprehension <https://doi.org/10.1016/j.ecresq.2018.02.002>
- Gernsbacher, M. A. (2015) Video captions benefit everyone. *Policy Insights From the Behavioral and Brain Sciences*, 2(1), 195–202 <https://doi.org/10.1177/2372732215602130>
- Hirsh-Pasek, K., Zosh, J. M. and Golinkoff, R. M. (2015) Putting education in “educational” apps: Lessons from the science of learning. *Psychological Science in the Public Interest*, 16(1), 3–34
- Kabali, H. K. et al. (2015) Exposure and use of mobile media devices by young children. *Pediatrics*, 136(6), 1044–1050
- Kaban, A. L. (2021) Gamified E-Reading experiences and their impact on reading comprehension and attitude in EFL classes. *International Journal of Mobile and Blended Learning*, 13(3), 1–20 <https://doi.org/10.4018/ijmbli.2021070105>
- Konca, A. S. (2021) Digital technology usage of young children: screen time and families. *Early Childhood Education Journal*, 50(7), 1097–1108 <https://doi.org/10.1007/s10643-021-01245-7>
- Lauricella, A. et al. (2022) Listed in your references; used in-text as Lauricella et al., 2022
- Lillard, A. S. et al. (2015) Further examination of the immediate impact of television on children's executive function. *Developmental Psychology*, 51(6), 792–805
- Lin, Y., Chen, C. and Zhao, H. (2023) Television viewing duration and language delay in preschool children: A cross-sectional study. *International Journal of Early Childhood*, 55(1), 37–49
- Linebarger, D. L. and Piotrowski, J. T. (2009) TV as storyteller
- Linebarger, D. L. and Vaala, S. E. (2010) Screen media and language development in infants and toddlers: An ecological perspective <https://doi.org/10.1016/j.dr.2010.03.006>
- Linebarger, D. L. and Walker, D. (2005) Infants and toddlers' television viewing and language outcomes
- Madigan, S. et al. (2020) Associations between screen use and child language skills. *JAMA Pediatrics*, 174(7), 665 <https://doi.org/10.1001/jamapediatrics.2020.0327>
- Mahesh, N. R. U. et al. (2024) Evaluating the role of digital media in language development among pre-schoolers: An observational study. *Asian Journal of Medical Sciences*, 15(2), 58–63 <https://doi.org/10.3126/ajms.v15i2.59871>
- Mahn, H. and John-Steiner, V. (2012) Vygotsky and Sociocultural approaches to teaching and learning <https://doi.org/10.1002/9781118133880.hop207006>



- Massaroni, V. et al. (2023) The Relationship between Language and Technology: How Screen Time Affects Language Development in Early Life: A Systematic Review. *Brain Sciences*, 14(1), 27 <https://doi.org/10.3390/brainsci14010027>
- Mayer, R. E. (2024) The past, present, and future of the Cognitive Theory of Multimedia Learning. *Educational Psychology Review*, 36(1) <https://doi.org/10.1007/s10648-023-09842-1>
- Mayer, R. E. and Moreno, R. (2003) Nine ways to Reduce Cognitive Load in Multimedia Learning https://doi.org/10.1207/s15326985ep3801_6
- McArthur, B. A., Volkova, V. and Tomopoulos, S. (2021) Screen time and early childhood development: What's the evidence? *Pediatric Research*, 89(6), 1433–1440
- Mol, S. E., Bus, A. G. and De Jong, M. T. (2009) Interactive Book Reading in Early Education <https://doi.org/10.3102/0034654309332561>
- Nasim, S. M. M. (2022) Effectiveness of digital Technology tools in teaching pronunciation to Saudi EFL learners <https://doi.org/10.51709/19951272/fall2022/5>
- Neuman, S. B. and Koskinen, P. (1992) Captioned television as “comprehensible input”
- Oktarina, I., Suwartono, T. and Shofia (2024) Relationship between Screen Time and Children's Language Development: A Systematic Literature Review. *Panacea Journal of Linguistics & Literature*, 3, 1–17
- Paivio, A. (2013) Bilingual dual coding theory and memory https://doi.org/10.1007/978-1-4614-9218-4_3
- Pennington, M. C. and Rogerson-Revell, P. (2018) Using technology for pronunciation teaching, learning, and assessment https://doi.org/10.1057/978-1-137-47677-7_5
- Piaget, J. (1954) *The Construction of Reality in the Child*. New York: Basic Books
- Pila, et al. (2023) Listed in your references; used in-text as Pila et al., 2023
- Radesky, J. S., Schumacher, J. and Zuckerman, B. (2016) Mobile and interactive media use by young children. *Pediatrics*, 135(1), 1–3
- Sarwat, S., Panhwar, A. H., Shahzad, W., & Shahzad, S. K. (2024). Critical Discourse Analysis of the Speech of Recep Tayyip Erdogan at the United Nations General Assembly. *Qlantic Journal of Social Sciences and Humanities*, 5(1), 95-106.
- Sarwat, S., Iftikhar, I., Sahito, J. K. M., & Shahzad, W. (2024). Impact of student engagement in language support classes through cooperative learning: A study of Pakistani educational institutions. *Research Journal for Societal Issues*, 6(1), 199-210.
- Sani Sami Alkhasawneh, F. A. (2013) Developing Multimedia Text for Reading Comprehension
- Savva, M. (2024) An Investigation into the Effects of Electronic Storybooks on Language and Literacy Outcomes <https://etheses.dur.ac.uk/15528/>
- Shahzad, W., Shahzad, K., Farooq, A., & Shah, L. (2020). An Introduction to the Language Policies (Lp) of Pakistan as a Multilingual Country: An analysis of the use of different ideologies in the LP from 1947-2009. *Hamdard Islamicus*, 43(1&2), 216-227.
- Simply Psychology (2024) Vygotsky's Sociocultural Theory of Cognitive Development <https://www.simplypsychology.org/vygotsky.html>
- Simply Psychology (2024b) Vygotsky's Zone of Proximal Development <https://www.simplypsychology.org/zone-of-proximal-development.html>
- Sweller, J. (2019) Cognitive load theory and educational technology. *Educational Technology Research and Development*, 68(1), 1–16 <https://doi.org/10.1007/s11423-019-09701-3>



- Vackova, P., Cermakova, A. L. and Kucirkova, N. I. (2023) Children's Digital Books: Development, testing and Dissemination of quality Criteria <https://doi.org/10.31265/usps.268>
- Valkenburg, P. M. et al. (1999) Developing a scale to assess three styles of television mediation
- Vygotsky, L. S. (1978) *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press
- Wen, W. N. L. and Naim, R. M. (2023) Vocabulary Learning Strategies (VLS) in SLA: A review of literature <https://doi.org/10.36777/ijollt2023.6.2.087>
- Wong, K. M. and Neuman, S. B. (2019) The Power of a Story https://doi.org/10.1007/978-3-030-20077-0_9
- Younas, A., Shahzad, W., Naveed, A., Aziz, S., & Younas, A. (2024). An Analysis of Figurative Language in Taufiq Rafat's Poem "The Time to Love". *Qlantic Journal of Social Sciences and Humanities*, 5(1), 399-412.
- Zhou, N. and Yadav, A. (2017) Effects of multimedia story reading and questioning <https://doi.org/10.1007/s11423-017-9533-2>
- Zimmerman, F. J., Christakis, D. A., & Meltzoff, A. N. (2007). Associations between media viewing and language development in children under age 2 years. *The Journal of pediatrics*, 151(4), 364-368.