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Parents' Perception of the Impact of Electronic Media on Language Development in Preschoolers in Sri Lanka

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Abstract

Despite the benefits, excessive screen time on electronic media detrimentally affects children's development. Electronic media usage in Sri Lanka has become prevalent among parents and children. Language development is critical for preschoolers, and any impact on it produces irreversible consequences in the child's later life. The present study was conducted to ascertain the parent's perception of the impact of electronic media on preschool children's language development in the Kalutara District of the Western Province of Sri Lanka. A piloted and validated questionnaire comprising eight indicators with a 5-Likert scale was used to collect self-reported parental responses. The responses were preprocessed to combine strongly disagree and disagree into disagree, and agree and strongly agree in to agree. The neutral responses were omitted. Descriptive and inferential statistics of χ^2 were used to analyze the data. The parents believed that electronic

media affect positively on listening comprehension, the building of vocabulary, correct pronunciation, and drawing capabilities while negatively affecting the picking up bad words, inappropriate gestures, loss of interest in reading story books and telling a story, and fine motor capabilities such painting, drawings and pre-writing among preschool-aged children in Sri Lanka. The differences in ratings result from sector and gender of parents imply that most parents are unaware of the impact of electronic media on their children's language development.

Keywords: electronic media, language development, preschoolers, parent's perception.

Introduction

Even though the definition of language is varied, language is a natural endowment for humans to communicate with each other in society. Language development depends on several factors and several theories (Hoff, 2013), and the contribution of the brain's cognitive function to language development is imperative. Electronic media is described as a medium that enables an individual to share information with a large number of people by means of electronic devices and digital means.

Research problem

Preschool children spend much time on electronic media, as some spend time watching television or playing with tablets and smartphone devices (Genc, 2014). Unlike in the past when children's media usage was television and radio, in modern-day Sri Lanka, children's access to different electronic media as ones coming from the internet, video or computer games, PC, iPads, tablets, and mobile devices have become prevalent among children (Manukulasooriya, 2019). The potential effect of electronic media usage includes difficulties in communication, socialization, and interaction with other children (Bozzola et al., 2018). Irrespective of the numerous benefits associated with preschool children's use of electronic media, some parents have concerns about the impacts of electronic media on children's cognitive development and academic achievement. The researchers have emphasized that the time spent on electronic media at home could harm the child's development, other enriching activities like caregiver-child interaction, and shared reading (Dore and Dynia, 2020). Further, children are exposed to electronic media and technology tools in their environments very early, such as tablets, laptops, personal computers, televisions, smartphones with internet connections, and handheld digital games.

The recent development in electronic media and expansion to countries all over the world at an unprecedented pace,

especially in developed countries, has become an inseparable part of routine life activities (Moores, 2004, Tsatsou, 2009). Similarly, the same trend is emerging in developing and underdeveloped countries (Livingstone et al., 2017). There is a growing concern about using electronic media among children and its consequences (Ray & Jat, (2010). The literature on the impact of electronic media has provided a plethora of evidence to support the benefits and harmful effects of children's excessive use of electronic media (Chassiakos, 2016). As far as Sri Lanka is concerned, there are gaps in the knowledge of children's use of electronic media and the consequences of electronic media use. Except for a few studies on the impact of electronic media usage by preschoolers in Sri Lanka (Manukulasooriya, 2019), there is a lacuna in such works in Sri Lankan context. The literature shows that excessive use of media during early childhood negatively affects language development, which can produce communication problems with peers including parents. Therefore, it is necessary to study whether excessive use of electronic media impacts preschoolers' language development in Sri Lanka. Therefore, the study's objective was to explore the parents' perception of the impact of electronic media on the language development of preschoolers in Sri Lanka.

Methodology

The study was focused on preschool children in the Kalutara District, Western Province and the parents of the preschool children were the target population. There were 27041 children aged 3 to 5 years attending 1045 preschools in the district of Kalutara. Only 763 have been registered with the provincial government authority on preschool education. According to Thomas (1996), it is essential to clearly define the population being surveyed and ensure that the sample chosen accurately represents the population. The sample sizes for parents were determined using the Krejci-Morgan table (Krejci and Morgan 1970); on this basis, 377 parents were selected randomly.

The present study used a survey method to collect the data and a questionnaire to gather data on children's exposure to electronic media and parents' perceptions of their impact on children's language development, including 8 indicators with a 5-point Likert Scale. In the initial stage of designing the research instrument, the parents' questionnaire included two sections to represent parents' demographic characteristics and their perceptions of a child's language development. The questionnaire was submitted to a panel of experts in education and child development to determine the content validity of the indicators and was revised according to their comments. The finalized questionnaire was subsequently translated into the Sinhala language with the help of a language expert since

chosen preschool uses the Sinhala language. The questionnaire was piloted to a random sample of 55 responders, and the responses were subject to content validation through correlation among the indicators. The items of the language domain were highly correlated with a statistically significant level of $p < 0.05$. The Cronbach's alpha test for the data obtained from the pilot sample was satisfactory, and the Alpha value was above 0.7 for all indicators ensuring internal consistency (Tavakol and Dennick, 2011). The translated questionnaire was converted into Google Forms with the assistance of IT personnel. A description of the indicators and their acronyms is shown in Table 1.

Table 1. Indicators following their acronyms and description.

Acronym	**Description**
PPLD1	Exposure to electronic media (TV, Computer, or Smartphone) enhances children's listening skills.
PPLD2	Electronic media (TV, computer, or smartphone) enhance children's comprehension since they want to understand what is happening.
PPLD3	Most children develop vocabulary by learning words, phrases, and expressions from electronic media (TV, smartphone).
PPLD4	Most children learn correct pronunciation from electronic media.
PPLD5	Most children also learn bad words and inappropriate gestures from electronic media.

PPLD6	Electronic media has made children not interested in reading story books and listening to storytelling.
PPLD7	Most children learn to use different drawing tools by watching TV/computer/smartphone.
PPLD8	Most children do not paint, draw, copy, or write since they are more interested in the entrainment provided by electronic media.

The returned Google sheets were used to prepare the database and were subjected to preprocessing in which entry errors and missing data were treated. Further, the responses “Strongly disagree" and “Disagree" were merged together and labelled as “Disagree", and “Agree" and “Strongly agree" were merged together and labelled as “Agree". The response “Neutral" was purged from the data set. Thus, the dataset was refined for the purpose of statistical analyses. The descriptive statistics, χ^2 test.

Results and Discussion

The descriptive statistics of the sample population are shown in Table 2. According to the table, most responders presented the rural (76.7%) compared to the urban (23.3%). The education qualification of the sample demonstrates that G.C.E. (A/L) was dominated (45.6%) over the rest of the categories. Further, most parents were unemployed (25.7%), and 80.6% of the responders were female. As far as the

distribution of preschools was concerned, it was evident that the majority of preschools were located in rural areas. This is not surprising because urban areas in the Kalutara District represent a limited number of Urban Council areas (Horana, Bandaragama, Panadura, Kalutara, and Beruwala) and the rest of the areas fell into the category of rural area (Pradesheeya Sabha). Thus, the sample of parents represents the progressive urbanization of the country. The distribution of education qualifications reported in the study reflects the general trend of the country, however, the responders with graduate and postgraduate represent a considerable portion of the sample. As far as the occupation is concerned there was a considerable percentage of unemployed parents in the sample since the majority of rural females did not participate in the labor force in Sri Lanka (Samarakoon and Mayadunne, 2018). It is a general trend in which most males were not intervened with the children's related matters, especially the females who are naturally burdened with such duties (Boserup et al., (2013). Further, it may be due to the fact that most of the males were employed and could not find time to attend preschool children's activities. Therefore, the sample represents the social profile of the country.

Table 2. Descriptive statics of parent sample.

Indicator	Responses	Frequency	%
Location			
	Urban	88	23.3
	Rural	289	76.7
	Total	**377**	**100**
Educational Qualification			
	Primary	12	3.2
	Secondary	24	6.4
	G C E (O/L)	71	18.8
	G C E (A/L)	172	45.6
	Graduate	58	15.4
	Postgraduate	40	10.6
	Total	**377**	**100**
Occupation			
	Manager	24	6.4
	Professional	58	15.4
	Technicians and Associated Professionals	22	5.8
	Clerical Support Workers	53	14.1
	Service and Sales Workers	29	7.7
	Skilled Agricultural, Forestry, and Fishery Workers	12	3.2
	Craft-related Trades Workers	26	6.9
	Plant and Machine Operators and Assemblers	29	7.7
	Elementary occupations	17	4.5
	Armed Forces	10	2.7
	Unemployed	97	25.7

Total	**377**	**100**
Gender of the Responder		
Father (Male)	73	19.4
Mother (Female)	304	80.6
Total	**377**	**100**

It was evident that a considerable number of responders remained neutral in responding to the indicator related to the impact of electronic media on language development. From the observation of the indicators, it is apparent that 30.77% - 46.42% of parents remained neutral (Table 3). This may be due to their unawareness of language development components of child development which may be further associated with their level of education. Further, there is a discernible variation in the Disagree/Agree responses across the indicators. The responses to the indicator, such as PPLD1, PPLD5, PPLD6, and PPLD8, were above 60%. The variation in Disagree/ Agree response patterns could result from the parents' demographic background.

Table 3. Distribution of Disagree/Agree and Neutral responses in the sample.

Indicator	Disagree/ Agree	%	Neutral	%	Total	%
PPLD1	228	60.48	149	39.52	377	100
PPLD2	202	53.58	175	46.42	377	100
PPLD3	220	58.36	157	41.64	377	100
PPLD4	207	54.91	170	45.09	377	100
PPLD5	232	61.54	145	38.46	377	100
PPLD6	261	69.23	116	30.77	377	100
PPLD7	222	58.89	155	41.11	377	100
PPLD8	233	61.80	144	38.20	377	100

The distribution of the negative and positive responses across the indicators is indicated in Table 4. Higher frequencies of positive responses were observable across the indicators, however, more or less equal responses were received for the indicator PPLD8. In summary, this response pattern reflects that most parents agree or strongly agree with the statement on the impact of electronic media on the language development of preschool children. The responses suggest that most parents are well aware of electronic media's negative and positive impacts on children's language development. The rating of the indicator “Exposure to electronic media (TV, Computer or Smartphone) enhance children's listening skills" (PPLD1) i.e. “Disagree" and “Agree", was 60.48%, exclusive of 39.52% of “Neutral". The rating of PPLD1 received 39.0% for

“Agree" indicating that most parents believed that exposure to electronic media enhances listening skills. Therefore, exposure to electronic media positively impacts the child's language development. Similarly, Electronic media (TV, computer, or smartphone) enhance children's comprehension ability since they want to understand what is happening (PPLD2), Most children develop vocabulary by learning words, phrases, and expressions from electronic media (TV, smartphone) (PPLD3), Most children learn correct pronunciation from electronic media (PPLD4), and Most children learn to use different tools to draw by watching

TV/computer/smartphone (PPLD7). The ratings of these indicators imply that parents believe there is a positive contribution to the child's language development. On the other hand, the rating of the indicators of Most children also learn bad words and inappropriate gestures from electronic media (PPLD5), Electronic media has made children not interested in reading from story books a listening to storytelling (PPLD6), and most children do not paint, draw, copy or write since they are more interested in entrainment provided by electronic media (PPLD8) indicated that parents perceived that certain drawbacks of the electronic media which negatively impact on the language development of children. The findings supported similar studies elsewhere (Ruangdaraganon et al., 2009, Rideout, 2014).

Table 4. Summary of the responses to the indicators of language development.

Indicator	Response	Frequency	Percent	Impact
PPLD1	Disagree	81	21.5	Negative
	Agree	147	39.0	Positive
PPLD2	Disagree	78	20.7	Negative
	Agree	124	32.9	Positive
PPLD3	Disagree	49	13.0	Negative
	Agree	171	45.4	Positive
PPLD4	Disagree	80	21.2	Negative
	Agree	127	33.7	Positive
PPLD5	Disagree	58	15.4	Positive
	Agree	174	46.2	Negative
PPLD6	Disagree	54	14.3	Positive
	Agree	207	54.9	Negative
PPLD7	Disagree	47	12.5	Negative
	Agree	175	46.4	Positive
PPLD8	Disagree	110	29.2	Positive
	Agree	123	32.6	Negative

The comparison of ratings with the parents' demographic characteristics is shown in Table 5. According to the table, it is evident that the indicators of PPDL3, PPDL5, and PPDL7 significantly differ between the rural and urban setups ($p < 0.05$). They could be attributed to the fact that in rural areas, electronic media are novel and most parents admire their children's attachment to media tools believing

that their children get an advantage over others in future educational endeavors. Similarly, responses to the indicator PPLD6 showed a significant variation across the educational qualifications and occupation of the parents ($p < 0.05$) and this could be attributed to the occupation which plays a surrogate role of educational status that determines the awareness of the impact of electronic media on children. Meanwhile, the rating of the indicators of PPLD5, PPLD6, PPLD7, and PPLD8 differ between the gender of the parents ($p < 0.05$). This discrepancy in ratings is obvious, and it reflects the male and female perception differences (Meyrowitz, 1986).

Table 5. Comparison of ratings across the responder's demographic characters.

Indicator	Sector			Educational qualifications			Occupation			Gender responder		
	Chi-Square	df	Sig.	Chi-Square	df	Sig.	Chi-Square	df	Sig.	Chi-Square	df	Sig.
PPLD1	1.170	1	0.279	4.216	5	0.519	13.037	10	0.222	0.170	1	0.680
PPLD2	0.334	1	0.563	5.951	5	0.311	13.106	10	0.218	0.319	1	0.572
PPLD3	6.861	1	0.009	1.862	5	0.868	10.554	10	0.393	0.001	1	0.973
PPLD4	1.642	1	0.200	15.646	5	0.008	5.971	10	0.818	0.064	1	0.801
PPLD5	9.670	1	0.002	5.569	5	0.350	13.524	10	0.196	7.168	1	0.007
PPLD6	3.218	1	0.073	12.480	5	0.029	19.418	10	0.035	12.309	1	0.000
PPLD7	7.271	1	0.007	6.102	5	0.296	7.282	10	0.699	4.514	1	0.034
PPLD8	0.006	1	0.939	2.821	5	0.728	10.904	10	0.365	7.425	1	0.006

Conclusion

Electronic media can impact the language development of children either negatively or positively. Most parents believe that electronic media positively affect, especially listening comprehension, vocabulary building, correct pronunciation, and drawing capabilities of preschool-aged children in Sri Lanka. On the contrary, picking up bad words, inappropriate gestures, loss of interns in reading story books and telling a story, and fine motor capabilities such as painting, drawings, and pre-writing. Further, parents' false negative and false positive responses to the indicators of children's language development reflected the parents' poor awareness and the necessity of awareness building. In such a situation, authorities must devise a proper mechanism to overcome the parent's problem.

Further studies are required for the confirmation of the findings of the study. Studies must focus on verifying the parent's perception through child observation at least at the preschool setup.

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