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## **Addressing the digital divide: Internet access and children's online opportunities in Brazil**

Children's and Young People's Rights in the Digital Age

IAMCR 2016 Pre-conference

London | 26-27th of July 2016

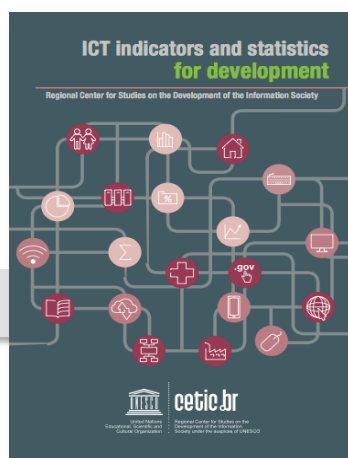
# MEASURING ACCESS TO AND USE OF ICT

*CETIC.br: areas of investigation*

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## ICT Surveys in Brazil

*10 years producing data for  
evidence-based policymaking*



2005



2012



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Regional Center for Studies on the  
Development of the Information  
Society under the auspices of UNESCO

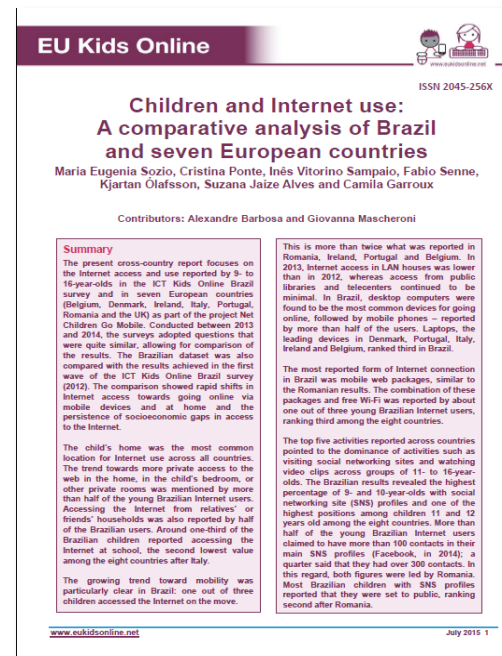
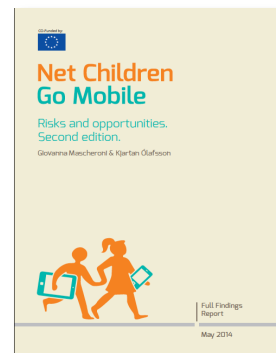
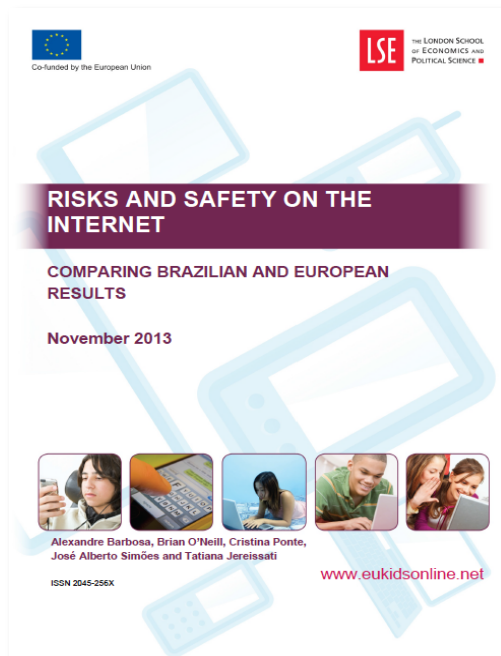


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# COMPARATIVE ANALYSES

## ICT Kids Online Brazil and European Projects

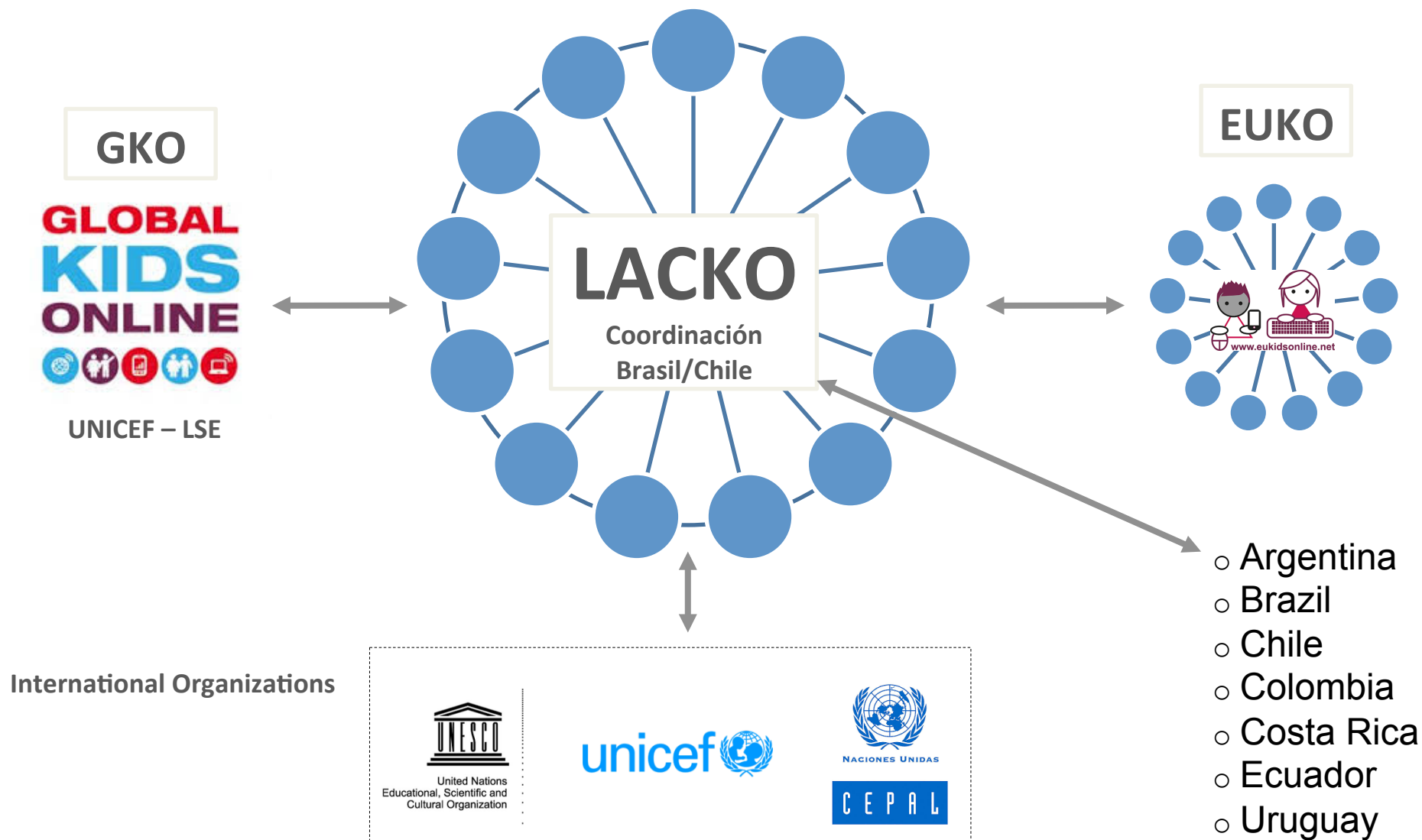


Barbosa, A., O'Neill, B., Ponte, C., Simões, J.A., and Jereissati, T. (2013). **Risks and safety on the internet: Comparing Brazilian and European children**. LSE, London: EU Kids Online.

Sozio, M. E. ; Ponte, C. ; Sampaio, I. V. ; Senne, F. J. N. ; Olafsson, K. ; Alves, S. J. Z. ; Garroux, C. (2015). **Children and Internet use: A comparative analysis of Brazil and seven European countries**. EU Kids Online, v. 1, p. 1-19.



# LATIN AMERICAN KIDS ONLINE





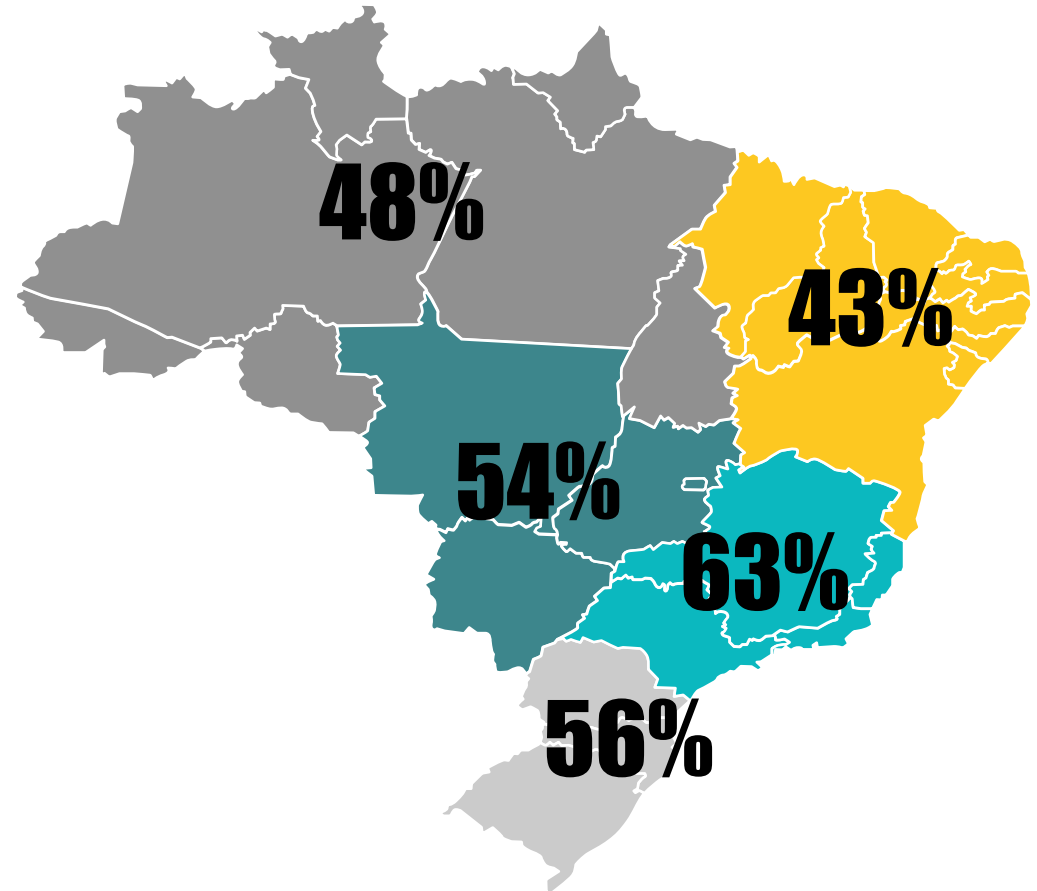
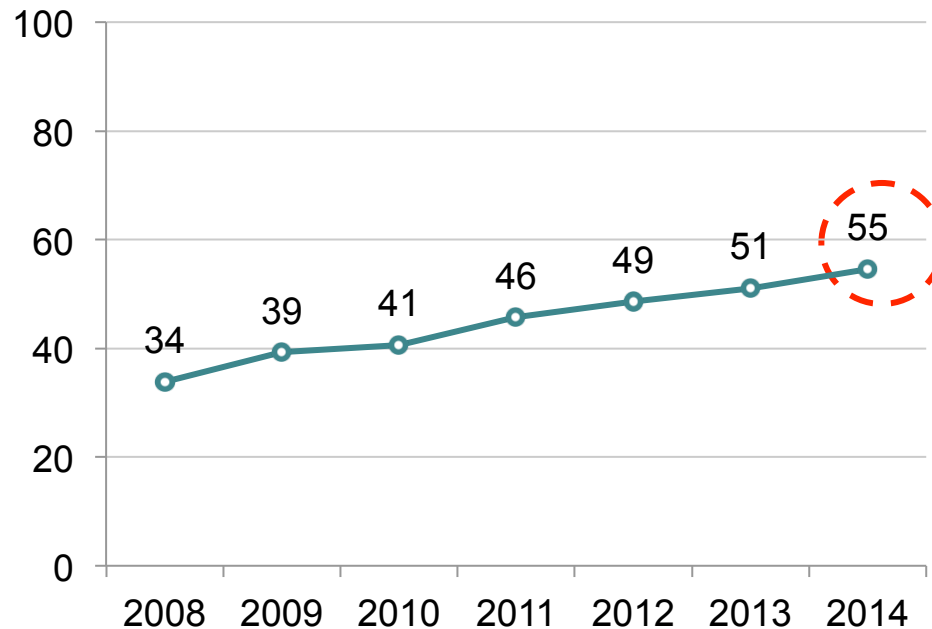


## CONTEXT OF CONNECTIVITY

*ICT in Households survey\*: Estimates on the prevalence of Internet users in Brazil*

**94**

Million Internet users in  
2014

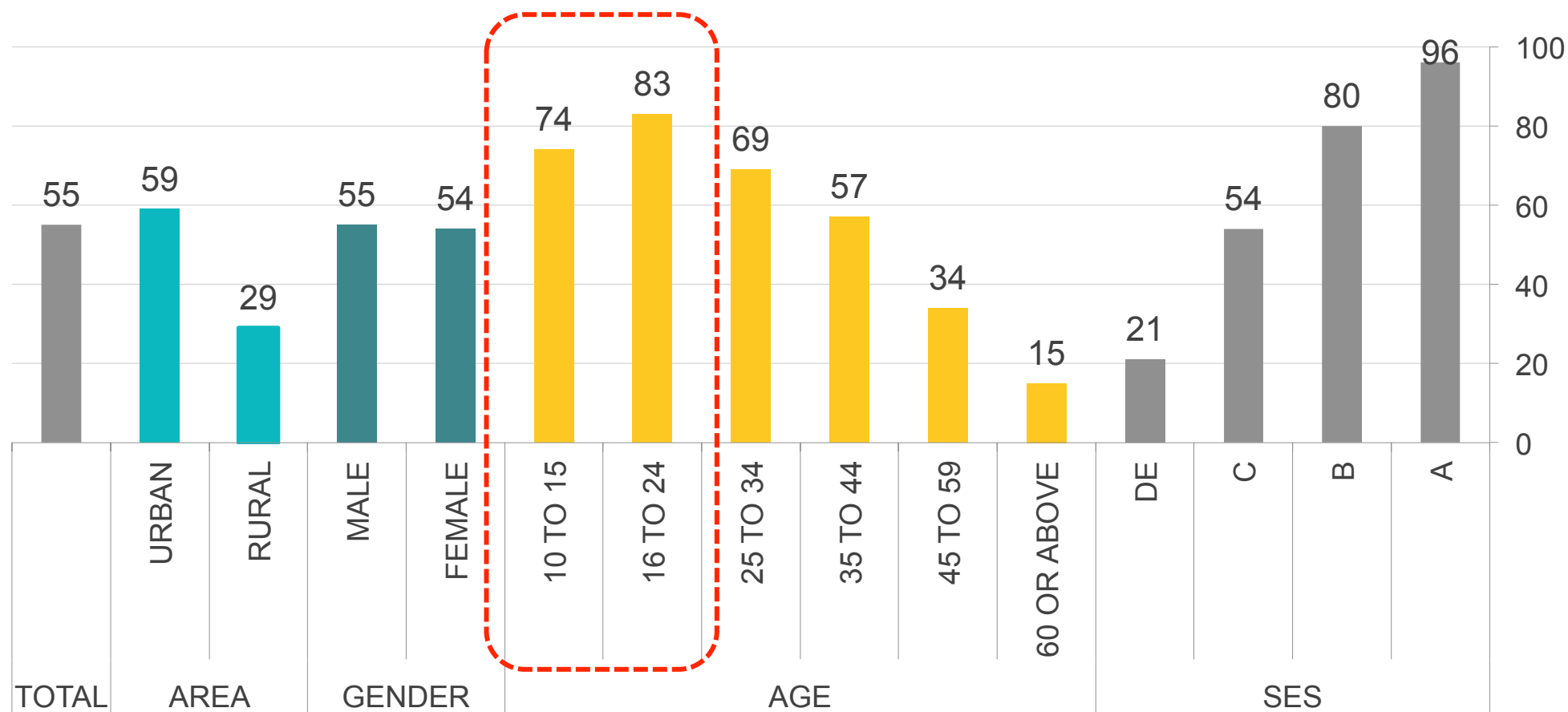


**Internet user:** those individuals who have used the Internet at least once in the three months prior to the interview (ITU, 2014).



## CONTEXT OF CONNECTIVITY

*ICT in Households survey\*: Estimates on the prevalence of Internet users in Brazil*



\* Available at: <http://cetic.br/pesquisa/domicilios/>.



# ICT KIDS ONLINE BRAZIL

*Improvements in survey design*

- **Main challenges and shortcomings:**

- Digital divide: Internet users represent 55% of the total population and 77% of the population aged 10 to 17 years (ICT in Households 2014);
- Regional differences: higher between regions than across countries;
- Increased costs and operational effort to find the target population of the survey;

- **Improvement in survey design:**

**2015 – Sampling design optimization and cost reduction:**

Integration to the ICT in Households sample design and survey operations



# ICT KIDS ONLINE BRAZIL

*Survey design 2012-2015*

		2012	2013	2014	2015*
Sample design		PPS / IS	PPS / IS	PPS / IS	PPS / SRS
Number of municipalities		125	150	150	350
Number of enumeration areas		250	300	300	2.000
Number of interviews	Children	1.580	2.261	2.105	3.000
	Parents/ legal guardians	1.580	2.261	2.105	3.000
	Total	3.160	4.522	4.210	6.000
Mode of data collections		PAPI (Paper-and-pencil personal interviewing)	PAPI (Paper-and-pencil personal interviewing)	CAPI (Computer-assisted personal interviewing)	CAPI (Computer-assisted personal interviewing)
		SAQ (Self-administered questionnaire)	SAQ (Self-administered questionnaire)	CASI (Computer-assisted self-interviewing)	CASI (Computer-assisted self-interviewing)

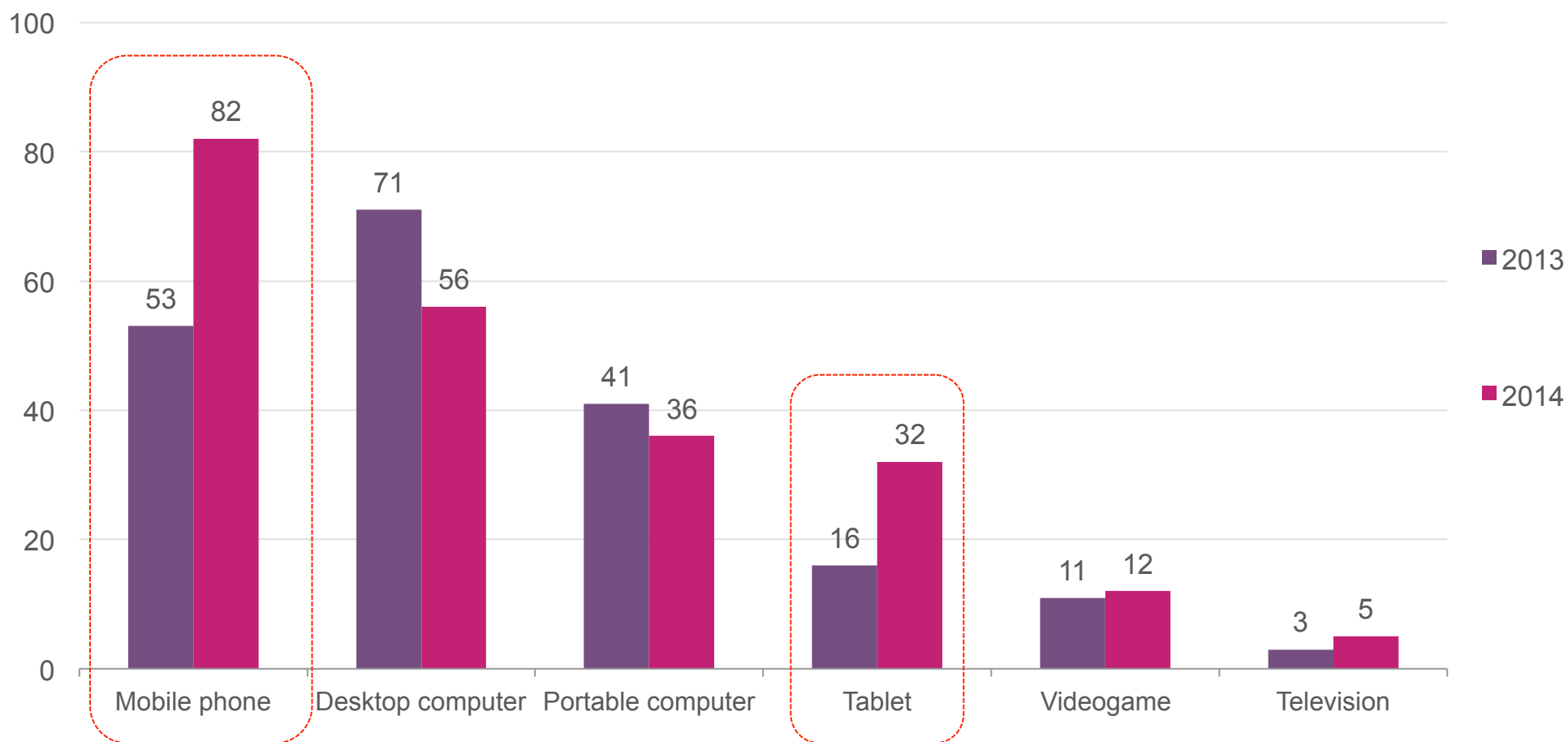
\* *Estimated sample sizes. Currently in data collection.*





# ACCESS TO THE INTERNET

*Devices used to go online*

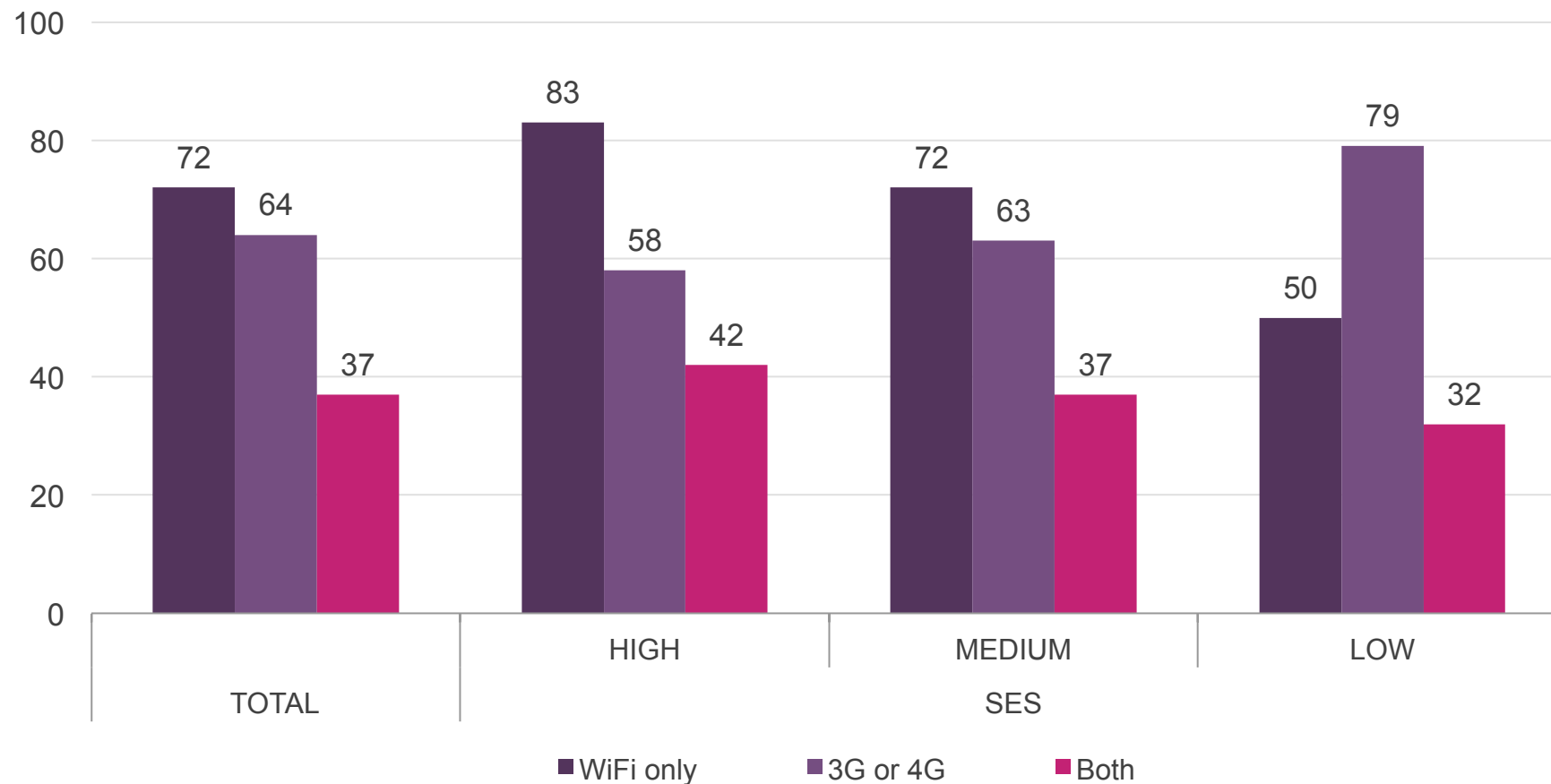


Base: 2 261 (2013) and 2 105 (2014) respondents.



# ACCESS TO THE INTERNET

*Type of Internet connection (2014)*

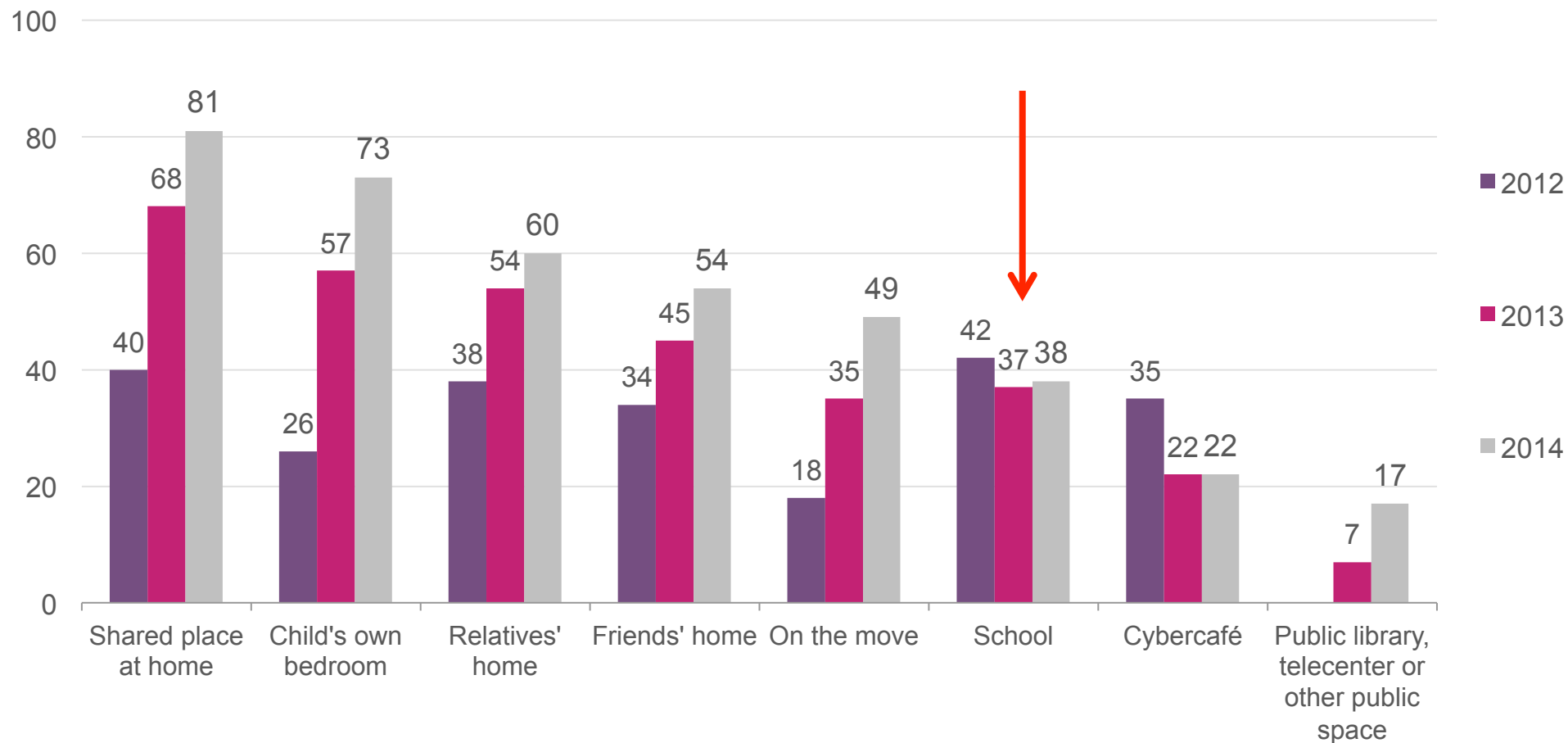


Base: 2 105 (2014) respondents.



# ACCESS TO THE INTERNET

## *Location of Internet use*

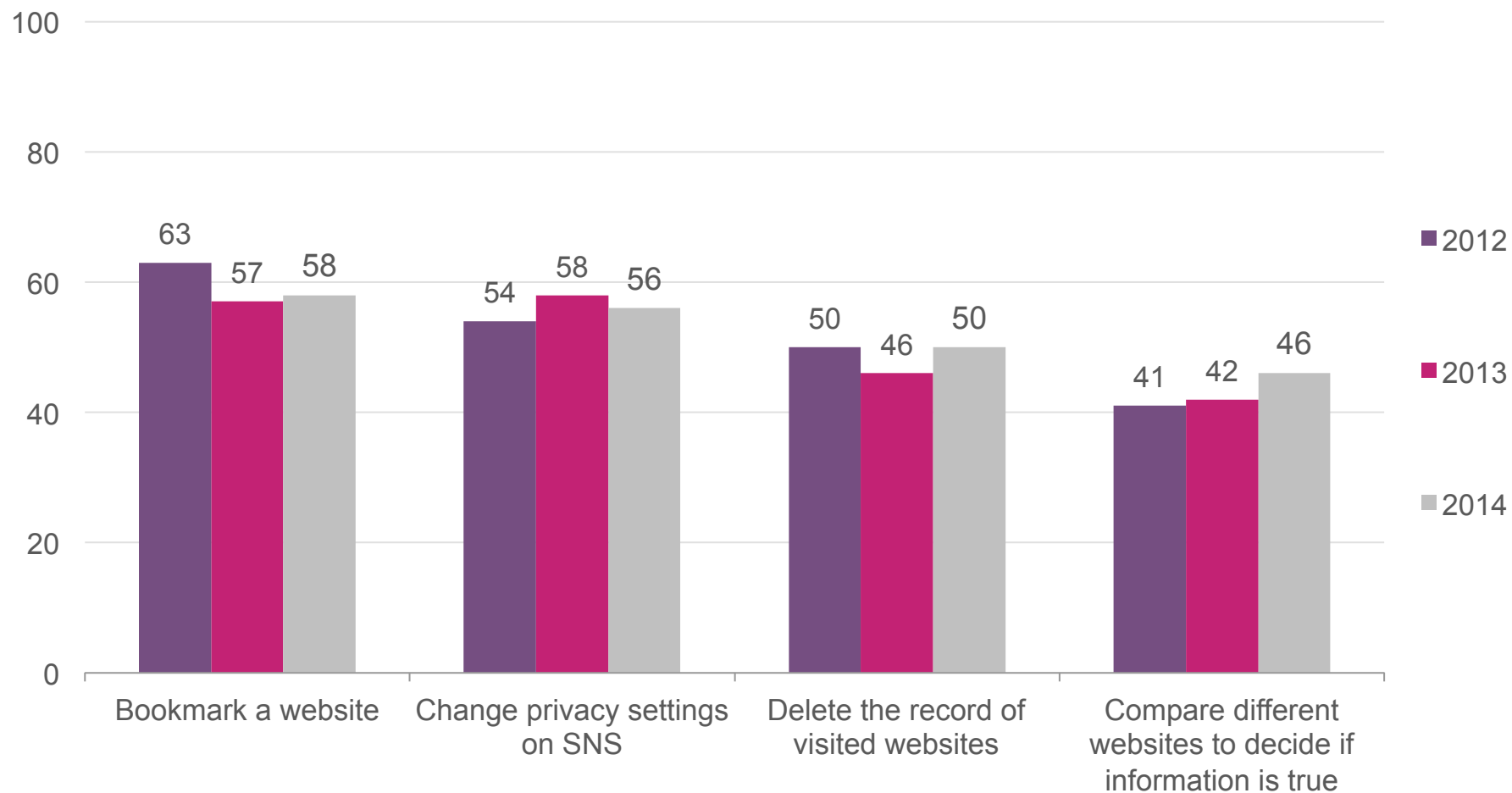


Base: 1 560 (2012), 2 261 (2013) and 2 105 (2014) respondents.



## DIGITAL SKILLS

*Skills for a safe use of the Internet*



Base: 1 560 (2012), 2 261 (2013) and 2 105 (2014) respondents.



## ACCESS TO THE INTERNET

*Devices used to go online, by SES (13- to 17-years-olds)*

Devices used	SES			
	High (AB)	Medium (C)	Low (DE)	Total
Only computer	6.4	11.3	8.3	9.7
Computer and cell phone	81.6	59.0	54.3	63.2
Only cell phone	11.9	29.6	37.4	27.1

Source: CETIC.br, Survey on Internet use by children in Brazil 2014.



# MULTIPLE CORRESPONDENCE ANALYSIS (MCA)

*Factor dimensions*

- 4 factors explain 80.2% of variability

Variable	Fac1	Fac2	Fac3	Fac4
Internet use for school work	6.35	3.08	36.59*	2.67
Watched online videos	8.90	4.04	2.96	2.90
Downloaded music or movies	12.37*	1.24	12.76	9.29
Read/watched online news	9.21	4.13	0.04	7.09
Researched things on the Internet	14.19*	0.85	16.45*	0.18
Watched online programs, TV series and movies	11.73*	6.36	0.08	6.49
Listened to music on the Internet	11.77*	0.99	25.69*	3.09
Entered, accessed a social network	8.92	8.20	0.00	31.82*
Used instant messaging	9.57	13.83	5.07	17.77*
Played games with other people on the Internet	3.01	23.60*	0.03	11.22
Played games alone on the Internet	3.98	33.69*	0.33	7.47
<b>Total</b>	100.0	100.0	100.0	100.0

Source: CETIC.br, Survey on Internet use by children in Brazil 2014.





# ANALYSIS OF VARIANCE MODEL

## Main findings

Models	M1		M2		M3		M4	
Source	df1	Sig.	df1	Sig.	df1	Sig.	df1	Sig.
(Corrected model)	5	0.00	5	0.00	5	0.01	5	0.04
(Intercept)	1	0.01	1	0.00	1	0.47	1	0.38
Gender	1	0.40	1	0.00*	1	0.20	1	0.13
SES	2	0.00*	2	0.26	2	0.17	2	0.22
Device used	2	0.05	2	0.00*	2	0.00*	2	0.18

\*significant at the 5% level.

Models	M1	M2	M3	M4
Gender				
Female vs. Male	-	-0,22	-	-
SES				
Medium SES vs. High SES	0.09	-	-	-
Low SES vs. High SES	0.43	-	-	-
Device used				
Only computer vs. Computer and cell phone	-	0.17	-0.10	-
Only cell phone vs. Computer and cell phone	-	-0.09	0.10	-

Source: CETIC.br, Survey on Internet use by children in Brazil 2014.



# ANALYSIS OF VARIANCE MODEL

## *Main findings*

- **Model 1:** Controlling for Gender and Device used, data analysis indicates that SES is critical for activities related to entertainment and the consumption of audio-visual media, and that high SES is associated with performing these activities.
- **Model 2:** Although the prevalence of boys in gaming activities is well documented in the literature, data shows that the use of computer is also relevant for explaining gaming.
- **Model 3:** Controlling for Gender and SES, data analysis shows that access to computer is critical for activities related to education and access to information.
- **Model 4:** Data analysis indicates that social networking and instant messaging are disseminated among children regardless of Gender, SES or Device used.

# Thank you!

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