

# School-Issued Devices For Home Use in K - 5th Grade and Parent Perceptions of Child Learning, Behavior, and Conflict

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## BACKGROUND

- ❖ School-issued devices (tablets/laptops) for use at school and home are common.
- ❖ Much of the research focuses on learning outcomes in schools (Beuermann et al., 2015; Cristia et al., 2017; Rosen & Beck-Hill, 2012; Zheng et al., 2016).
- ❖ Less often discussed are the possible effects on children and processes in the home.
- ❖ A few studies mention briefly that some parents may have concerns about screen time, Internet access, and the distracting nature of devices (e.g., Bate et al., 2012; Beuermann et al., 2015; Cristia et al., 2017; Ekici, 2016; Tahir & Arif, 2015).
- ❖ We examined parent perceptions of (1) how school devices are used at home, (2) positive and negative impacts on learning and behavior/emotions, (3) resources/training provided by schools, and (4) associations between these variables.

## METHOD

- ❖ 45 middle-class, Midwestern parents whose K-5 child has received a device from their school.
- ❖ Parent mean age = 36.8 (Range 26 to 46)
- ❖ Median income \$110,000; 93% Caucasian
- ❖ Child mean age = 7.6 (Range 5 to 11)
- ❖ Completed online survey in Feb. 2020

## RESULTS

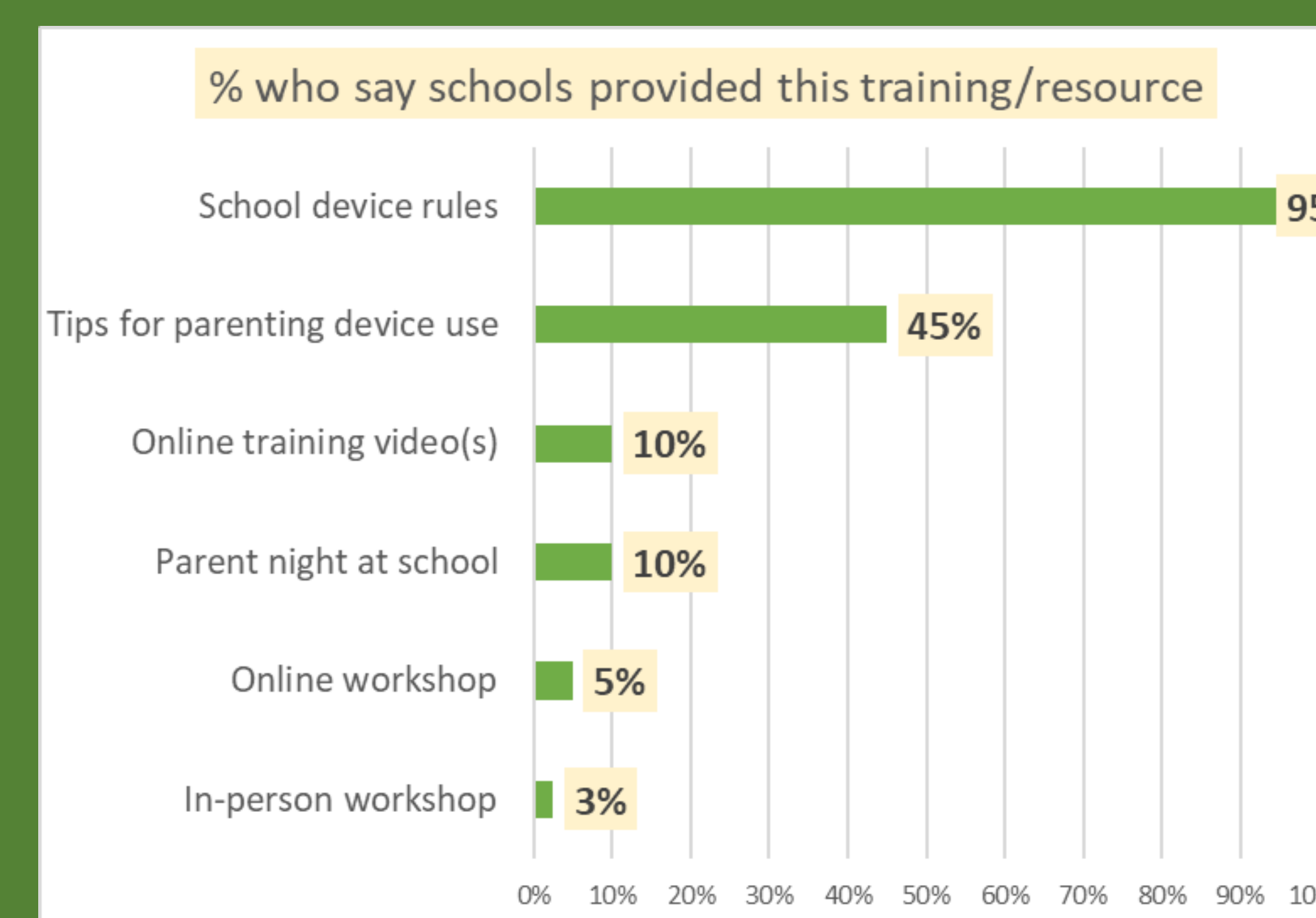
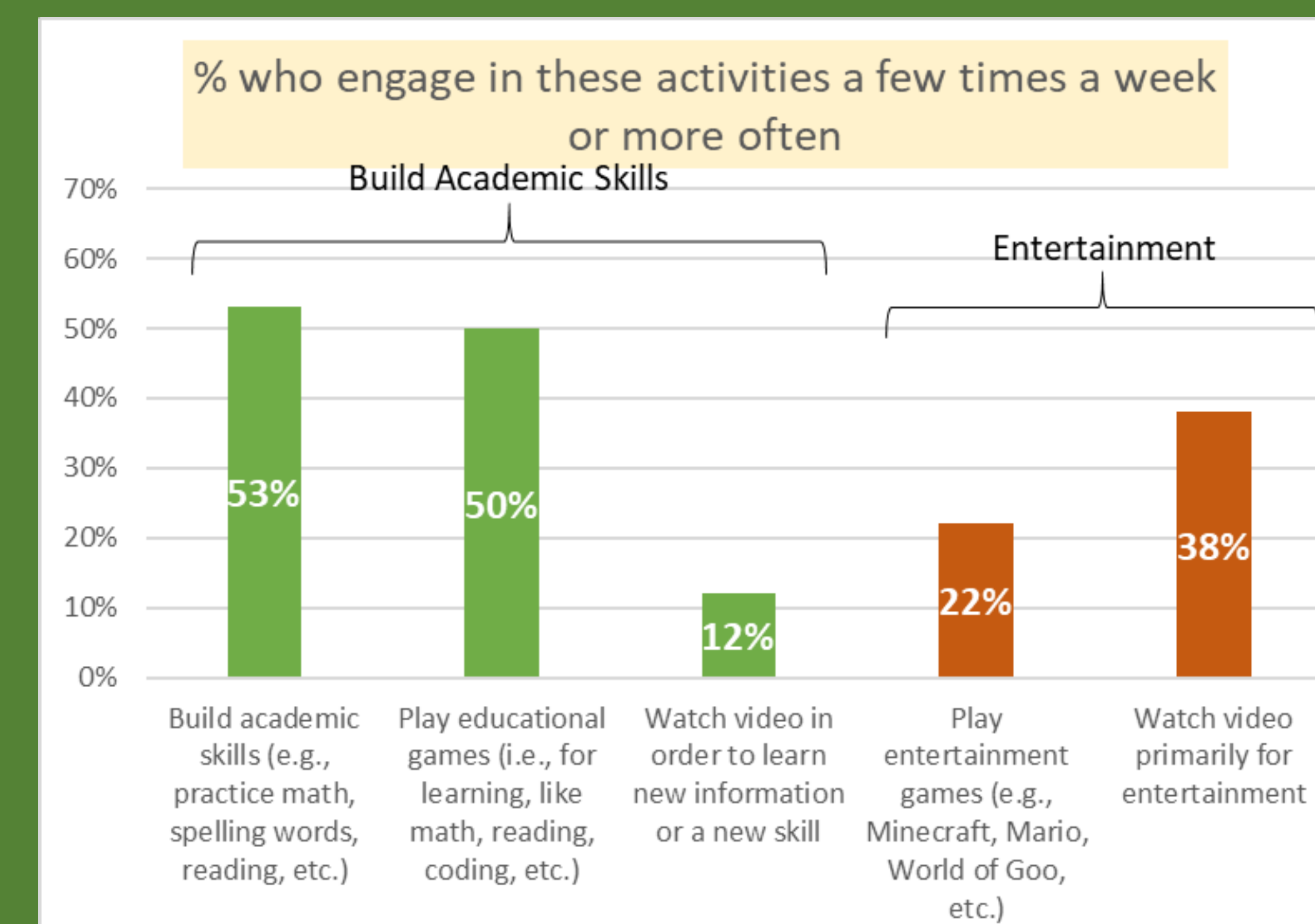
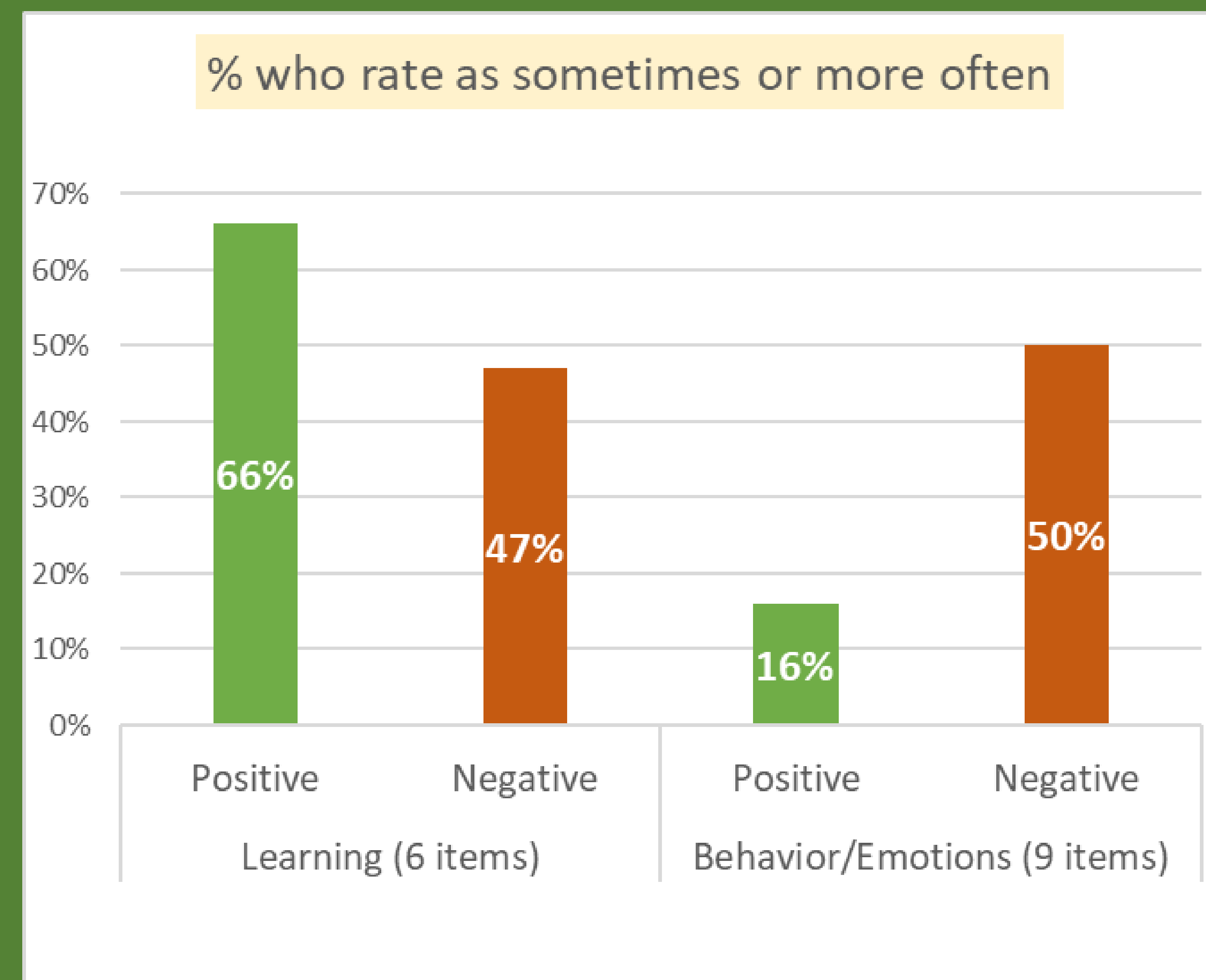
- ❖ See Figures and Tables
- ❖ Use for academic skills correlated with positive impacts on learning and behavior.
- ❖ Use for entertainment correlated with neg. impacts on learning, behavior, and conflict.
- ❖ Many feel it both positively and negatively impacts child learning and behavior.
- ❖ Almost no schools provided formal training.
- ❖ Parents who felt worse about the training, child used device more for entertainment ( $r=.44, p<.05$ ), device neg. impacting learning ( $r=.51, p<.001$ ), and struggling with neg. child behaviors ( $r=.59, p<.001$ ) and conflict ( $r=.63, p<.001$ ).

**67%**  
felt more training  
was needed from  
schools



**46%**  
Fought a few  
times a week or  
more over device

**Pre-COVID, less training from schools linked to greater entertainment use and more struggles at home.**



## MEASURES

- ❖ **Frequency of device use at home**
  - ❖ 0 = Never, 7 = Almost constantly every day
  - ❖ **Build academic skills** - 3 items, Table 1
  - ❖ **Entertainment** - 2 items, Table 1
- ❖ **Pos / Neg Impacts on Learning**
  - ❖ Asked about pos impact, then about neg impact on same items
  - ❖ 6 items each, "quality of learning," "desire to learn" 0 = Never, 4 = Very often
- ❖ **Pos / Neg Impacts on Behavior**
  - ❖ Asked about pos impact, then about neg impact on same items
  - ❖ 6 items each, "quality of learning," "desire to learn" 0 = Never, 4 = Very often
- ❖ **Frequency of conflict over child's device use** - 1 item, 0 = Never, 7 = Almost constantly every day
- ❖ **School resources / training**
  - ❖ 1 item, resources provided, see Figure
  - ❖ 1 item, whether felt were enough
    - ❖ 1 = Yes, completely, 4 = No, didn't provide any

## DESCRIPTIVE STATISTICS

Table 1. Descriptives on main study variables

	Mean	Std. Dev.	Never	Once or twice a month or less	Once a week	A few times a week or more
<b>Build Academic Skills (3 items)</b>	2.54	1.67				
Build academic skills (e.g., practice math, 1 spelling words, reading, etc.)	3.00	1.80	15%	22%	9%	53%
Play educational games (i.e., for learning, 2 like math, reading, coding, etc.)	3.13	2.00	15%	22%	13%	50%
Watch video in order to learn new 3 information or a new skill	1.50	1.70	44%	28%	16%	12%
<b>Entertainment (2 items)</b>	1.69	2.08				
Play entertainment games (e.g., 1 Minecraft, Mario, World of Goo, etc.)	1.31	2.01	66%	9%	3%	22%
2 Watch video primarily for entertainment	2.06	2.46	53%	3%	6%	38%
	Mean	Std. Dev.	Never or Rarely	Sometimes	Often or Very Often	
<b>Positive Impacts</b>						
Learning (6 items)	1.89	1.09	34%	29%	37%	
Behavior/Emotions (9 items)	0.77	1.06	84%	0%	16%	
<b>Negative Impacts</b>						
Learning (6 items)	1.36	1.29	53%	21%	26%	
Behavior/Emotions (9 items)	1.58	1.36	50%	19%	31%	
	Mean	Std. Dev.	Never	Once or twice a month or less	Once a week	A few times a week or more
<b>Conflict Over Device</b>	2.49	2.36	37%	0%	46%	
	Mean	Std. Dev.	Yes, completely	No, little more was needed	No, not more was needed	No resources / training
<b>School provided sufficient resources/training</b>	2.22	1.16	33%	31%	16%	20%

Table 2. Correlations between frequency of device use at home and perceptions of impacts on child learning, child behavior/emotions, and conflict

	Positive impact Learning	Behavior / Emotions	Negative impact Learning	Behavior / Emotions	Freq. of conflict over device
Build academic skills	.37*	.36*	.01	-.16	.27
Entertainment	-.20	.04	.45*	.54**	.69**

Note. N = 32. \*p < .05, \*\*p < .01.

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