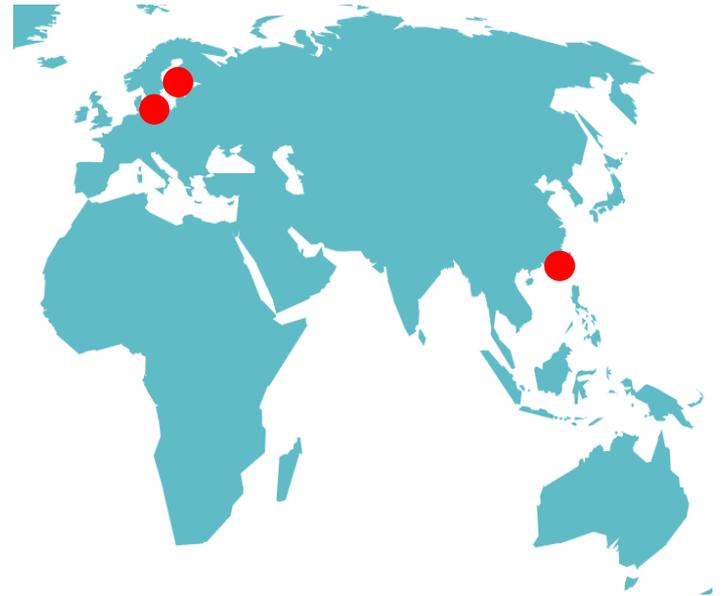


# Socioeconomic Patterning of the Internet Use among School-aged Children in Taiwan

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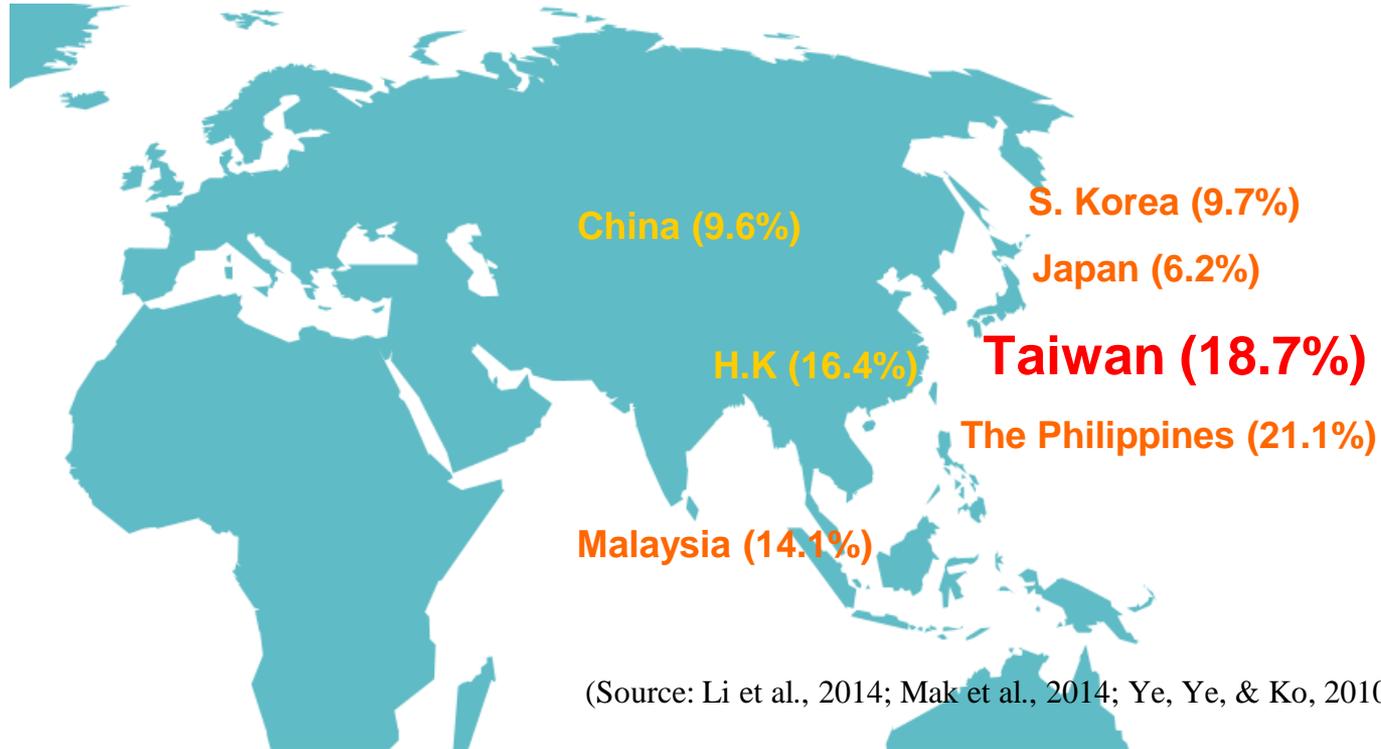
*Presented at 2019 European Conference on Developmental Psychology*



# Background

- ICT environment in Taiwan
  - High penetration rate, easy access
  - Online gaming and SNS the most developed Internet activities in Asia
- National Curriculum Guidelines- ICT as core competence
- Emerging concerns (e.g. Internet addiction, cyberbullying..)

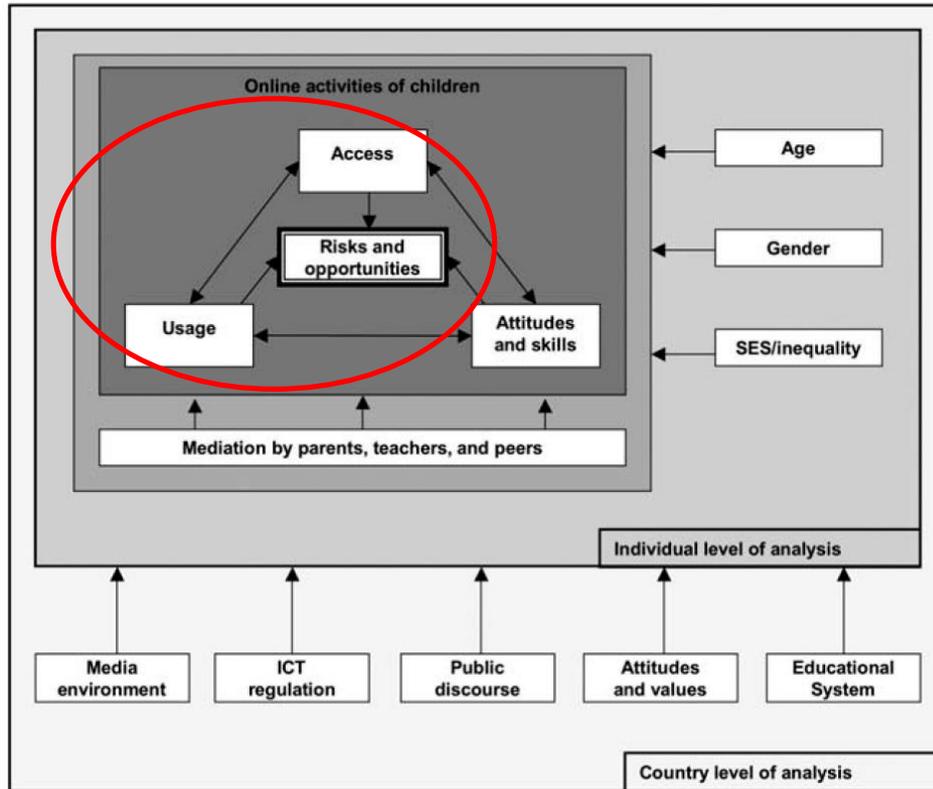
# Internet Addiction of Adolescents in Asia (CIAS-R defined)



# Reflections and the Rationale

- Social inequalities in child outcomes
- Digital divide theory (*Acharya, 2017; Hargittai & Hinnant, 2008*)
  - Inequalities in:
    - First level- accessibility
    - Second level- use and skills
    - Third level- consequences
  - Sequentiality of digital inequality
- Research gaps
  - Child population: IC technology and educational gaps
  - Internet: the preponderance on adults or adolescents

# Conceptual Framework: Children & Media



Source: Hasebrink, Oladsson & Stetka, 2010

# Research objectives

- To depict the socioeconomic patterning of Internet **access**, **use/skills** and **consequences** among school-aged children in Taiwan
- To examine the role of parental mediation in explaining the socioeconomic gaps, if any.

# Data source

- A Latvia-Lithuania-Taiwan collaborative study of Internet use among school-aged children
  - Short-term longitudinal investigation (2018~2019)
  - Children version (Internet use and skills, social relationship )  
Parent version (family sociodemographics, after-school activities, child's Internet use, parental mediation, parenting, child's SDQ)
  - Time 1 survey, cross-sectional design
- Participants
  - 304 dyads of children & their caregivers, from 7 public primary schools in Taipei
  - Children: grade 3<sup>th</sup> and 4<sup>th</sup>
  - Respondents: mothers (79.3%), fathers (18.8%)

# Measures<sup>1</sup>

- Internet access

- Number of IC devices; sole disposal of IC devices (P)
- Physical access at home; access other than at home (P)

- Online activities (C)

- 5-point Likert scale *Never/hardly never; Several times each day*
- Types (*van Deursen & van Dijk, 2014; van Deursen, 2016*)
  - Information (3): for school work, find out prices*
  - Social (5): check email, visit SNS*
  - Leisure (4): play video games, watch video clips*

# Measures<sup>2</sup>

- Internet skills (C)

- 3-point Likert scale (know nothing, some, a lot of that)
- Types (*Van Deursen, Helsper, Eynon & Van Dijk, 2017*)
  - Operational (7):* open downloaded files, find websites visited before
  - Social (3):* change privacy setting, remove people from contact list
  - Creative (2):* create a website, create and post online video

- Consequences of Internet use (C)

- Compulsive Internet Use Scale (CIUS) (*Meerkerk, Van den Eijnden, Vermulst, & Garretsen, 2009*)
- Preoccupation, withdrawal symptoms and loss of control...
- 14 items, 5-point Likert Scale

# Measures<sup>3</sup>

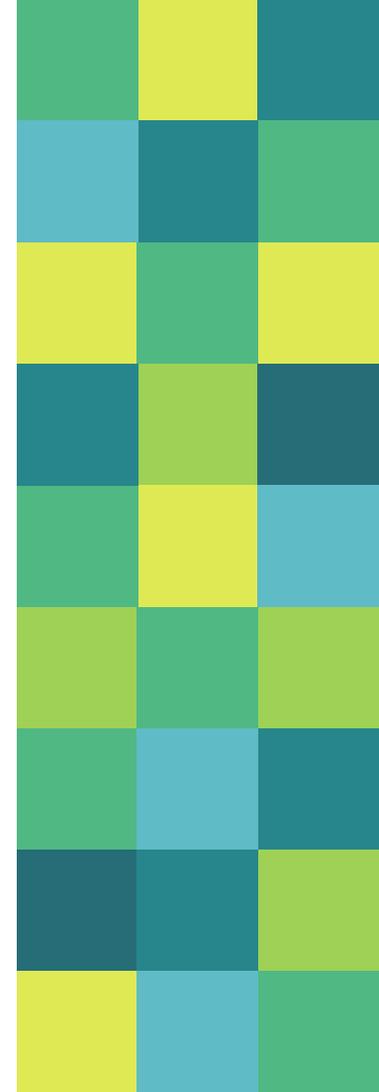
- Sociodemographic status (SES)
  - Educational attainment of the caregiver
    - Low* (senior high school or below;  $\leq 12$  years)
    - Middle* (junior/vocational college; 14~15 years )
    - High* (university or graduate school;  $\geq 16$  years)
- Parental mediation strategies
  - Proactive: do shared activities, suggest safe ways of use
  - Technical control: block advertisement, keep track of content
  - Parent-report adherence to rules (y/n)

# Socio-demographics of participants (n=304)

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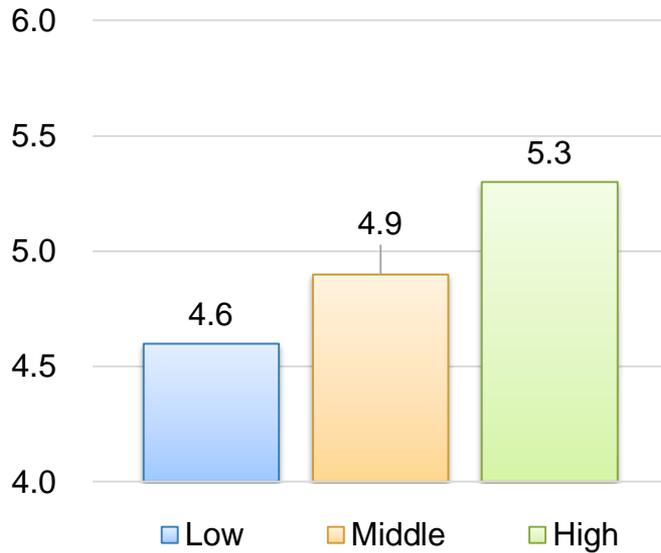
	n (%)
Boys	164 (53.9)
Age (mean, SD)	9.3 (0.6)
SDQ- hyperactivity scale (mean, SD)	3.5 (2.3)
<b>Caregiver's education</b> (Family SES)	
Senior high school or below	54 (17.8)
Junior/vocational college	48 (15.9)
University/graduate school	201 (66.3)
<b>Parent's marital status</b>	
Married	278 (91.7)
Non-married in a partnership	6 (2.0)
Not in a partnership	19 (6.3)
<b>Family financial status</b>	
Afford all that we'd like to have	10 (3.3)
Fairly well off	169 (56.0)
Get along well enough	102 (33.8)
Have only the very basic necessities	21 (6.9)

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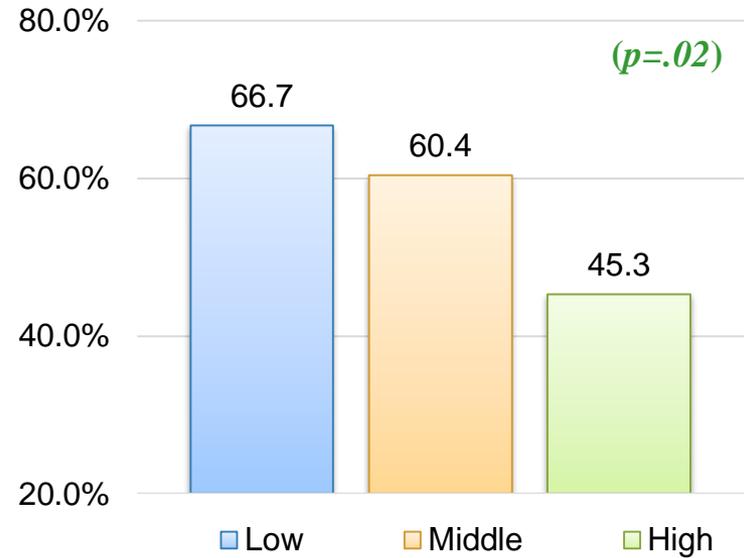


# Internet Access<sup>1</sup>, by SES

No. of IC devices at home

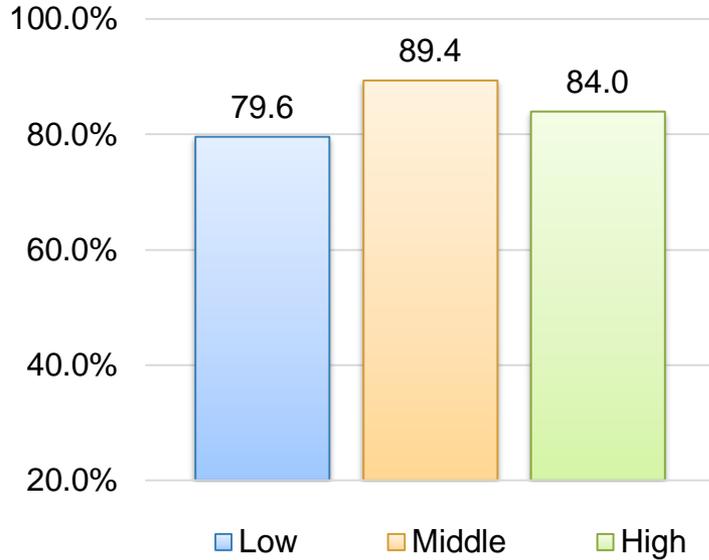


IC devices of sole disposal

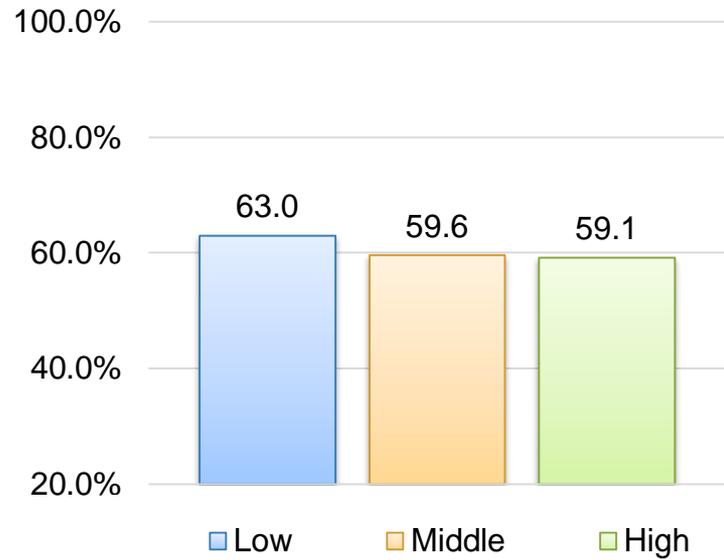


# Internet Access<sup>2</sup>, by SES

**Access at home**

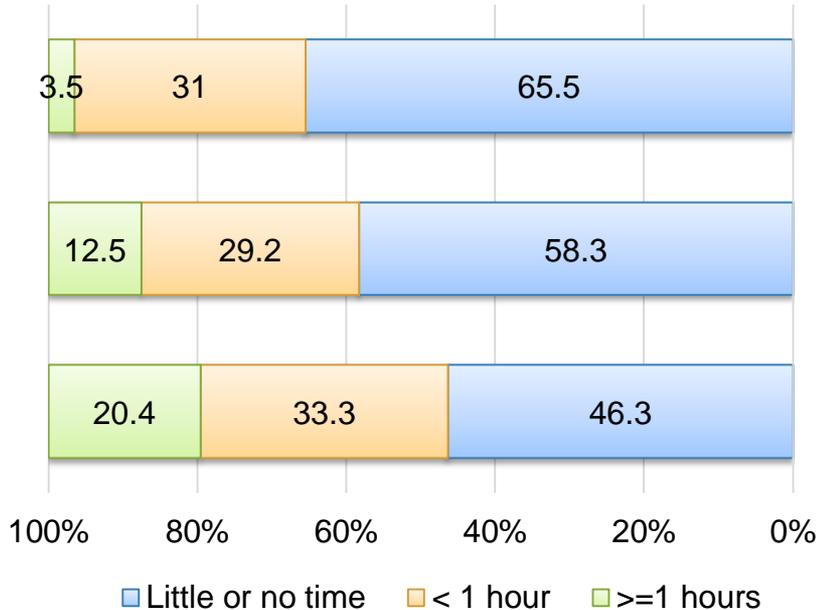


**Access other than home**

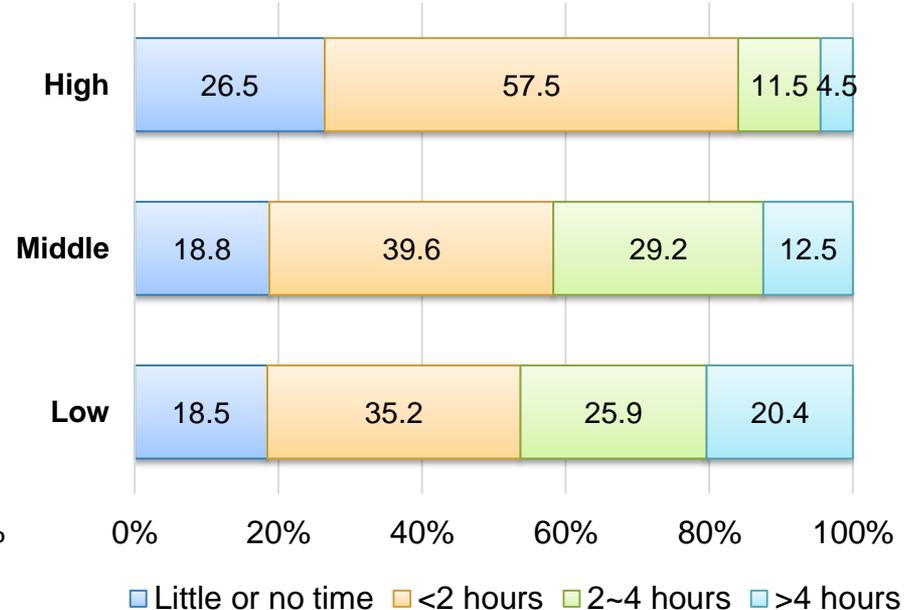


# Time of Internet Use, by SES

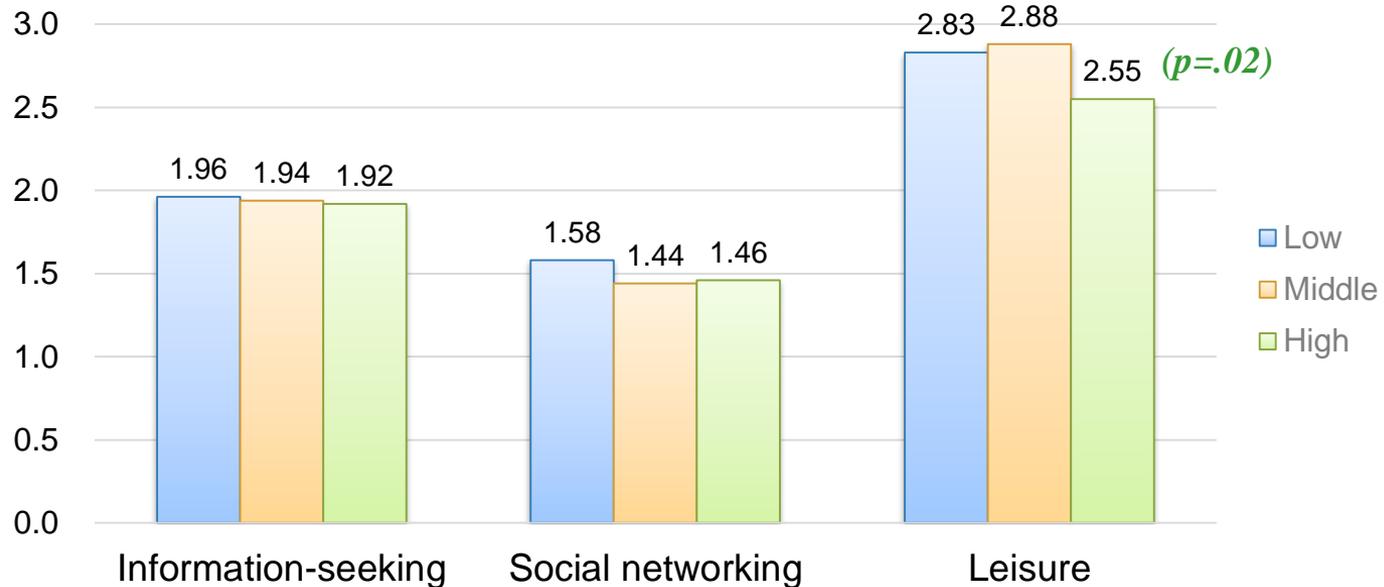
Hours per school day ( $p < .001$ )



Hours per weekend day ( $p < .001$ )

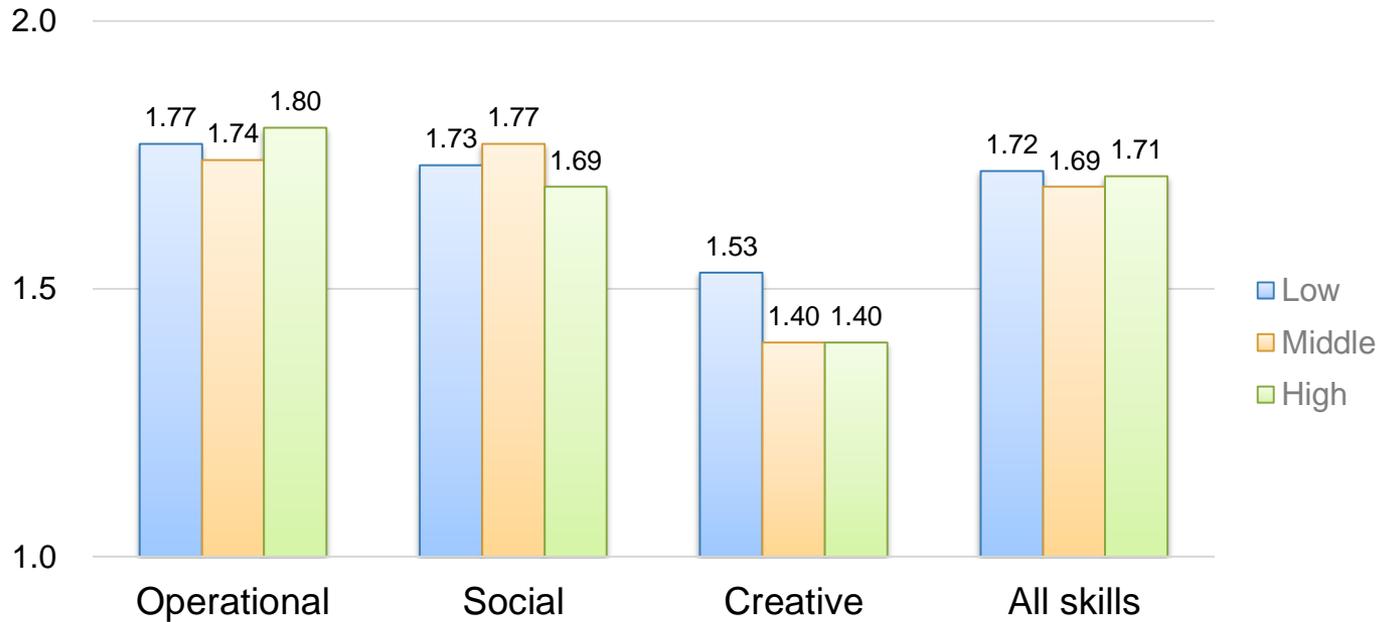


# Types of Internet Activities, by SES



*Note: (1) Never or hardly never, (2) Less than once a week, (3) About once or twice a week, (4) Daily or almost daily, (5) Several times each day*

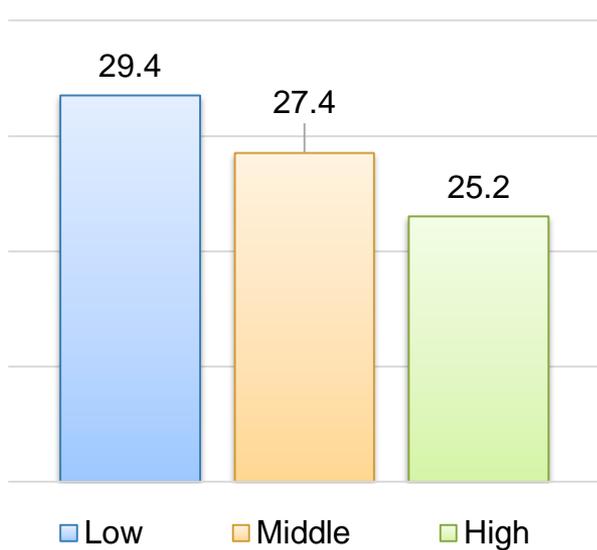
# Types of Internet skills, by SES



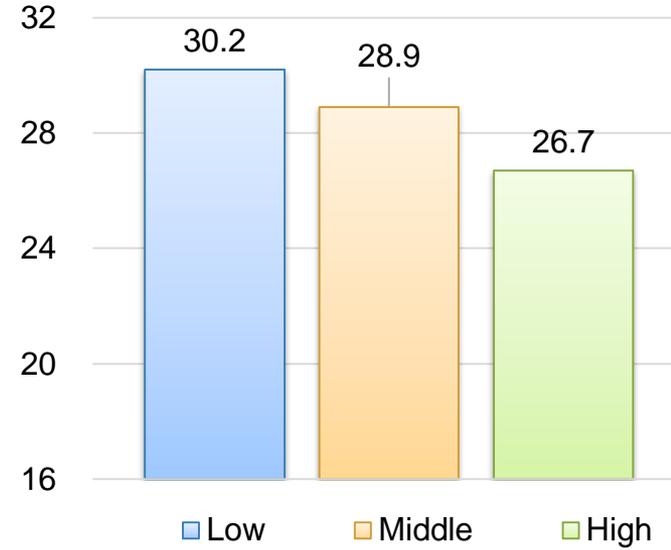
*Note: (1) Know nothing of that, (2) Know some of that, (3) Know a lot of that*

# Compulsive Internet Use, by SES

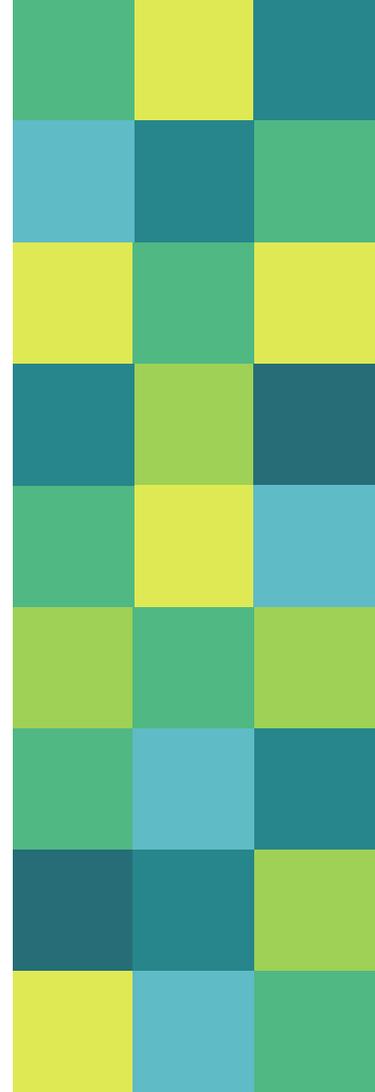
Parent-report ( $p=.01$ )



Child-report ( $p=.05$ )



Note: (1) Never, (2) Seldom, (3) Sometimes, (4) Often (5) Very often



# Multiple Linear Regression on CIUS

	Model 1	Model 2	Model 3
	B (SE)	B (SE)	B (SE)
Family SES (ref: Low)			
Middle	-1.52 (1.66)	-1.72 (1.71)	-0.87 (1.63)
High	-3.07 (1.30)*	-2.64 (1.31)*	-1.57 (1.27)
Sex (ref=girls)			
Boys	2.58 (1.01)*	1.05 (1.03)*	2.55 (1.02)*
SDQ- hyperactivity scores	1.55 (0.23)***	1.46 (0.23)***	1.25 (0.23)***
Leisure use score		0.45 (0.14)***	0.34 (0.14)*
Parental mediation			
Proactive			0.01 (0.08)
Control			0.51 (0.22)*
Adherence to rule			-4.91 (1.20)***
Model F	19.58***	18.16***	14.28***
Adj. R <sup>2</sup>	0.207	0.233	0.281

\* p<.05, \*\*p<.01, \*\*\*p<.001

# Conclusions

- Key findings

- No socioeconomic variations found in Internet access and skills among school-aged children
- Socioeconomic divide observed for children with lower SES spending more time on leisure activities and reporting higher level of CIU
- Adherence to family-set rules could account for the divide in CIU

- Implications and next steps

- What children do online matter; clear rules with children's adhered
- Cross-cultural comparison: the interplay of these factors in different sociocultural and policy contexts