Basic Education during the COVID-19 Pandemic

What do Enrollment by Learning Modality and Household Characteristics Tell Us?

Aniceto C. Orbeta, Jr.

Thursday, 26 May 2022 | 2:00 - 4:30 PM (Manila Time)

Outline of the presentation

Objectives of the study

To describe the responses of the education sector to the pandemic

To explain the pattern of learning modalities used by students based on household data

To describe how the students reacted through their use of the offered learning modalities

Draw insights and recommendations to guide implementation of remote learning

DATA AND METHODOLOGY

DepEd's enrollment data by learning modality

Indicates the learning modality used by students by level and type of school

Distribution of learning modality used may be the result of:

(a) *the preferences and the capacity of students to benefit from the different modalities;*
(b) *the capacity of schools to offer the different modalities*

2020 Annual Poverty Indicators Survey (APIS)

Provides estimates of the non-income indicators related to poverty

The study uses household data on the availability of the technologies that enable students to avail of the different learning modalities (e.g., access to the internet, TV, radio, and cell phone), and enrollment data by level and type of school

This study did a regression analysis to provide estimates on the correlates between having internet at home and the availability of broadband -> can help explain the availability of internet at home

DepEd's Learning Continuity Plan

Basic Education Learning Continuity Plan (BE-LCP)

- Issued in May 2020, this guided the education sector's response to the pandemic
- Identified several learning delivery modes, including
  1) *face-to-face in areas where there are low risks;*
  2) *distance learning modes by print, online, TV, and radio;*
  3) *blended learning - combines face-to-face and distance learning;*
  4) *homeschooling (DepEd Department Order 12)*
- **Most Essential Learning Competencies** - Streamlining of the K-to-12 curricula from 14,171 competencies to 5,689 or a reduction by 60 percent

Law and department issuances

Republic Act 11495

Bayanihan to Recover as One Act

- **Authorization given to DepEd to hire learning support aides (LSAs)** – teacher-assistants for the production or reproduction of modular learning materials for K-12 (Section 4)
- Allocated PHP 4.35 billion to basic education (DepEd) assigned as follows:
  1) *Laptops for teachers – PHP 2.4 billion*
  2) *Internet connectivity load – PHP 1.2 billion*
  3) *DepEd TV and Radio – PHP 300 million*
  4) *Subsidies and allowances – PHP 300 million*
  5) *Learning modules – PHP 150 million*

Department Orders

Issued by the Department of Education

to further guide the implementation of BE-LCP:

Department Order 31 s.2020

Provides guidelines for assessment and grading - reminds teachers to be flexible and "set realistic expectations"

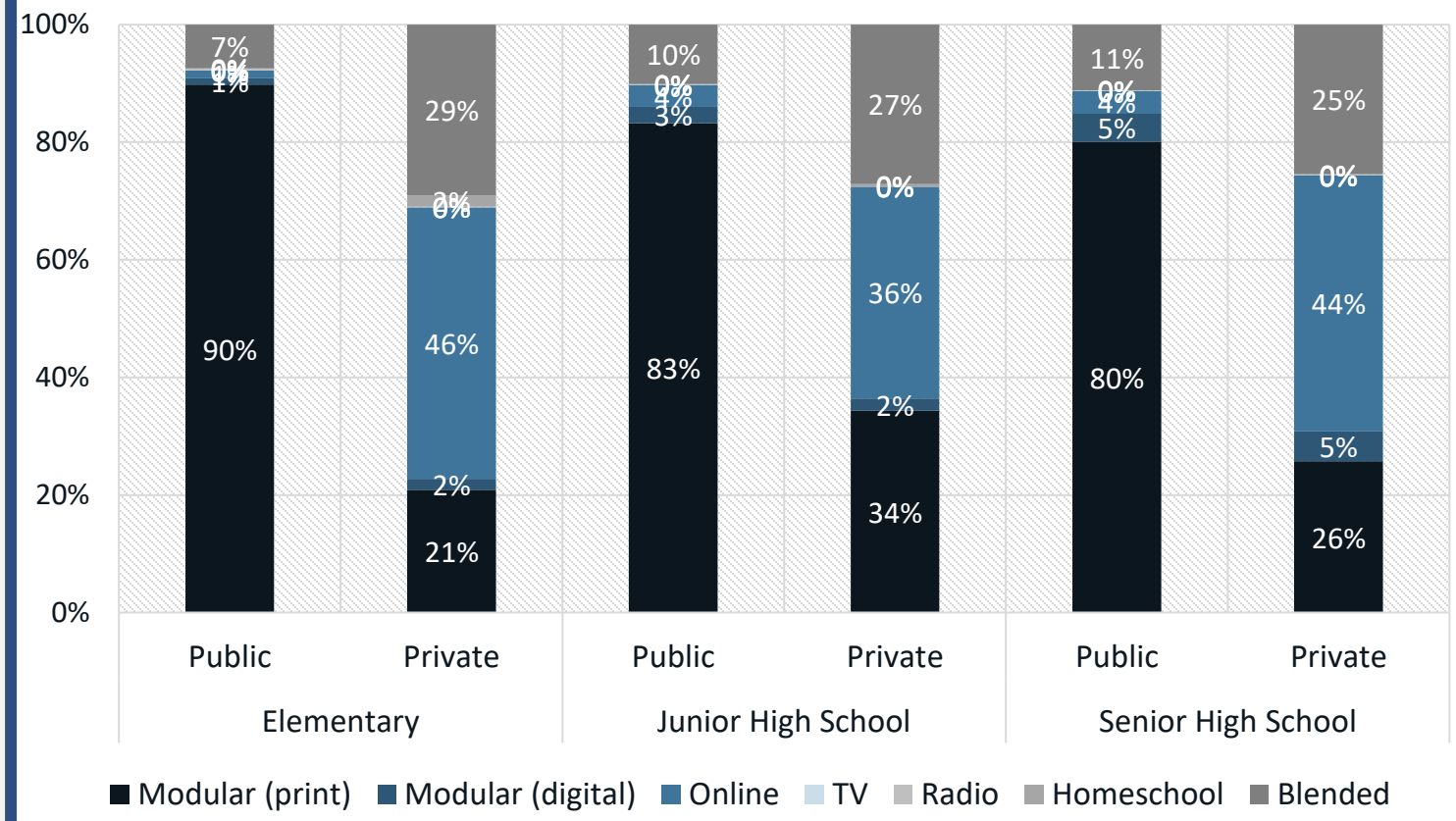
Department Order 32 s.2020

Provides guidelines on the utilization of LSAs – should be senior high graduates or have completed at least two years of college

Enrollment by mode of delivery

- **More students in private schools use online learning**, while public school students rely mostly on printed modules
- **Blended learning is also popular in schools where the online mode is largely availed** - might be because of the unreliable internet connection
- **Neither TV nor radio figured prominently** as the mode of delivery utilized by students in public and private schools

Distribution of student by level, type of school, and mode of learning, SY 2020–2021

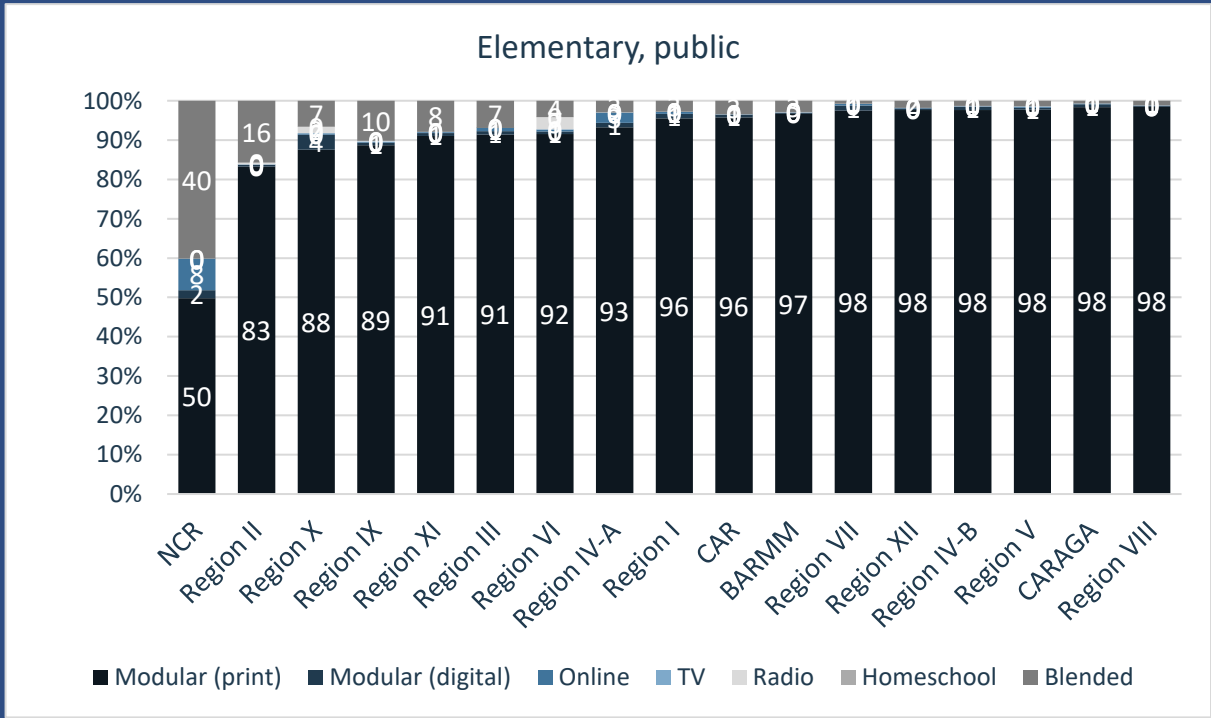


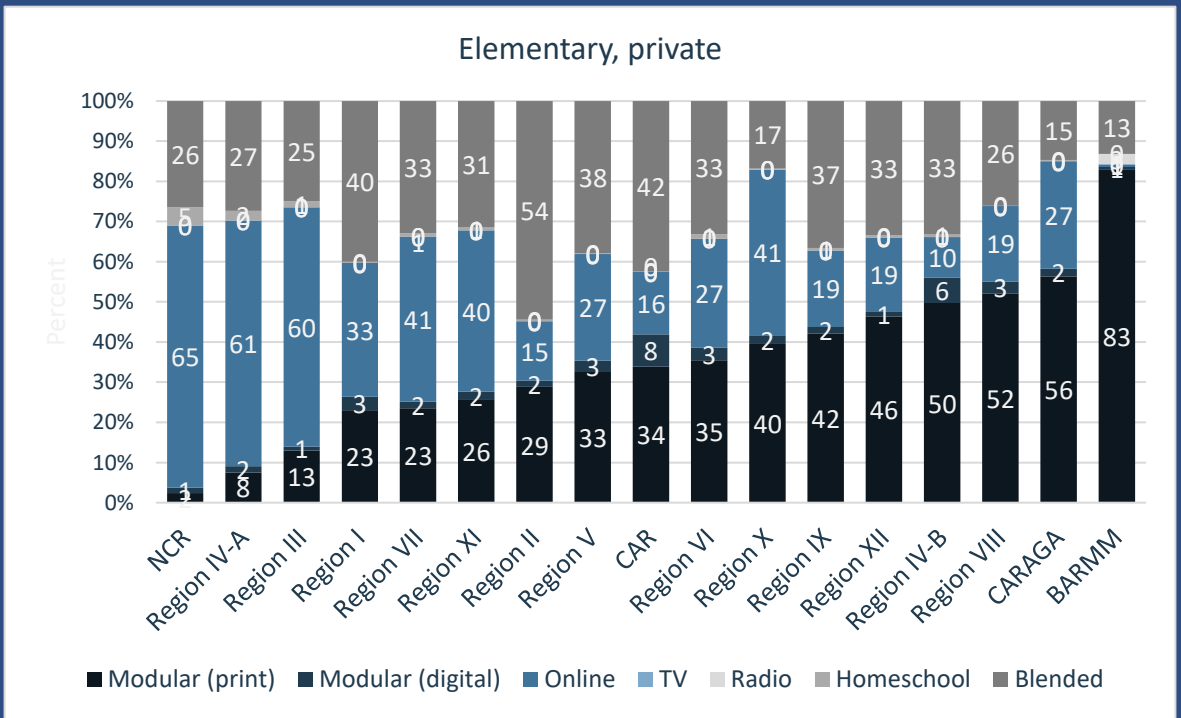
Source of basic data: DepEd (2021)

Distribution of mode of learning by region (1)

Modality used by the students is not only a function of the availability of the internet in the area or of the school's capacity to provide online learning but also of **the students' capacity to avail of the same**

Distribution of elementary students by learning modality, by type of school, and by region SY 2020-2021



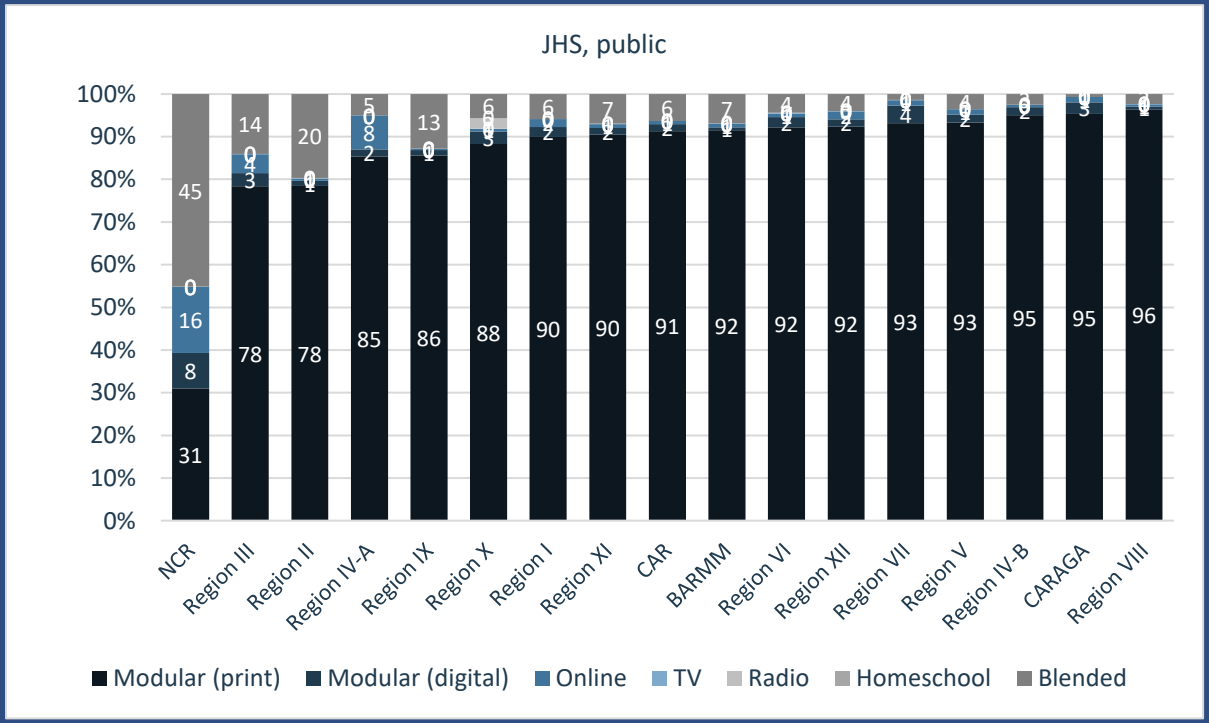


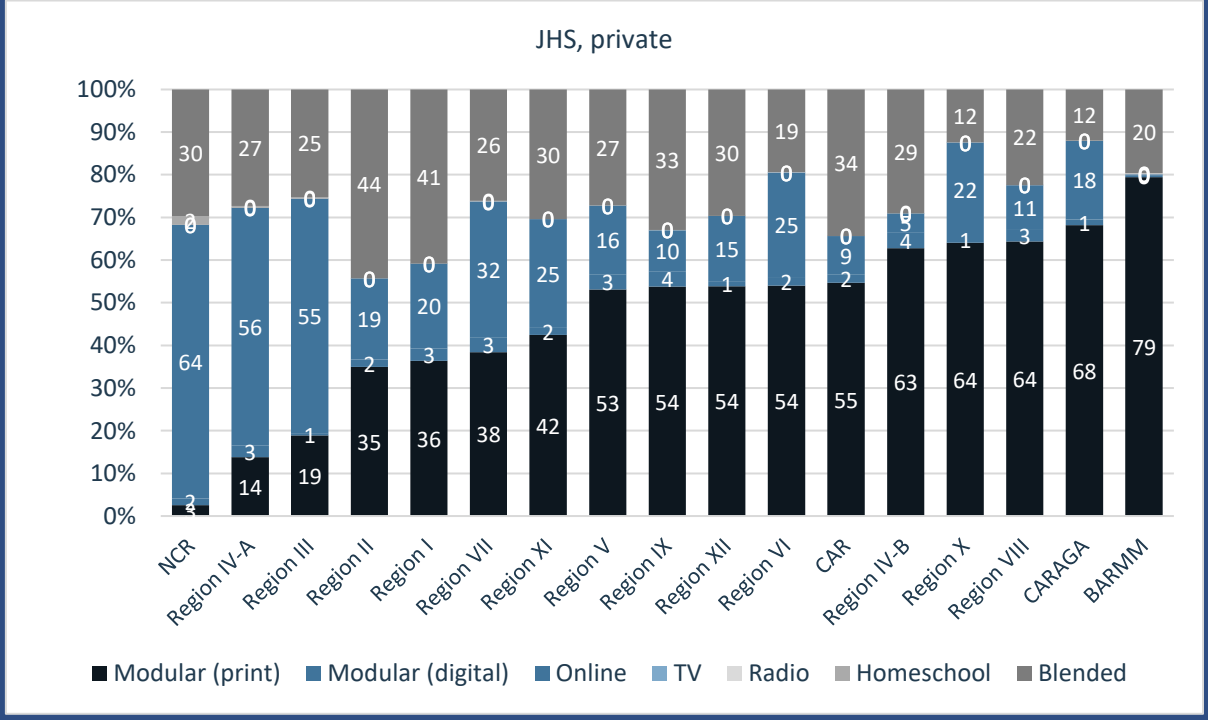
Source of basic data: DepEd (2021)

Distribution of mode of learning by region (2)

- **Private schools have a sizeable no. of students using online and blended learning modes** - in NCR, RIII, and RIV-A, online mode is the modal group for elementary, JHS, and SHS
- **Public school students for all regions are mostly using printed modules –** except for public JHS and SHS students in NCR

Distribution of JHS students by learning modality, by type of school, and by region SY 2020-2021



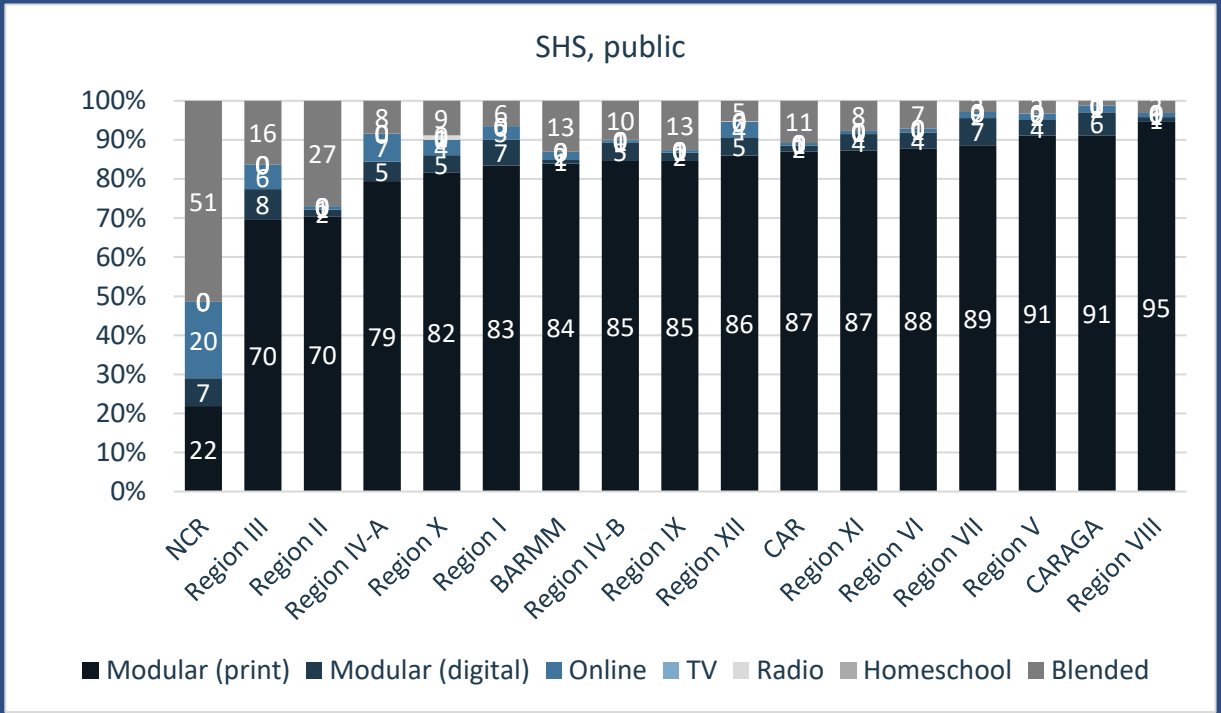


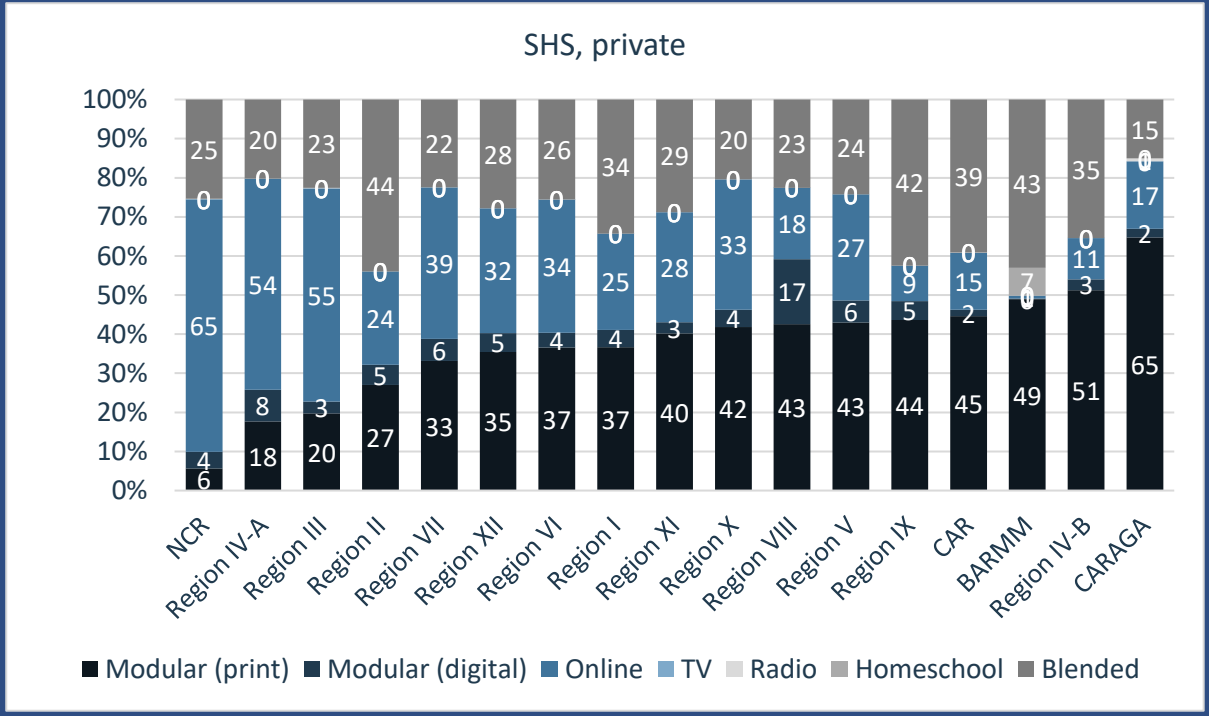
Source of basic data: DepEd (2021)

Distribution of mode of learning by region (3)

- **Distribution of learning modalities used also reflects the economic status of the students each type of school is serving -** more students use online modes of learning in private schools because they are likely to have access to electronic devices and internet connection

Distribution of SHS students by learning modality, by type of school, and by region SY 2020-2021



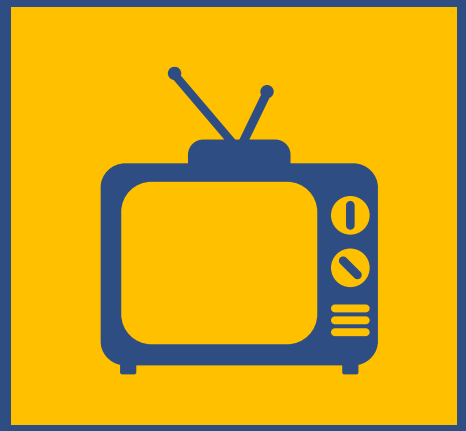


Source of basic data: DepEd (2021)

Reachability of students under remote learning modalities

"the share of school children that can be potentially reached by remote learning policies adopted by governments to ensure learning continuity in a country" – Avanesian et al. (2021, p.3)

HOME INTERNET ACCESS



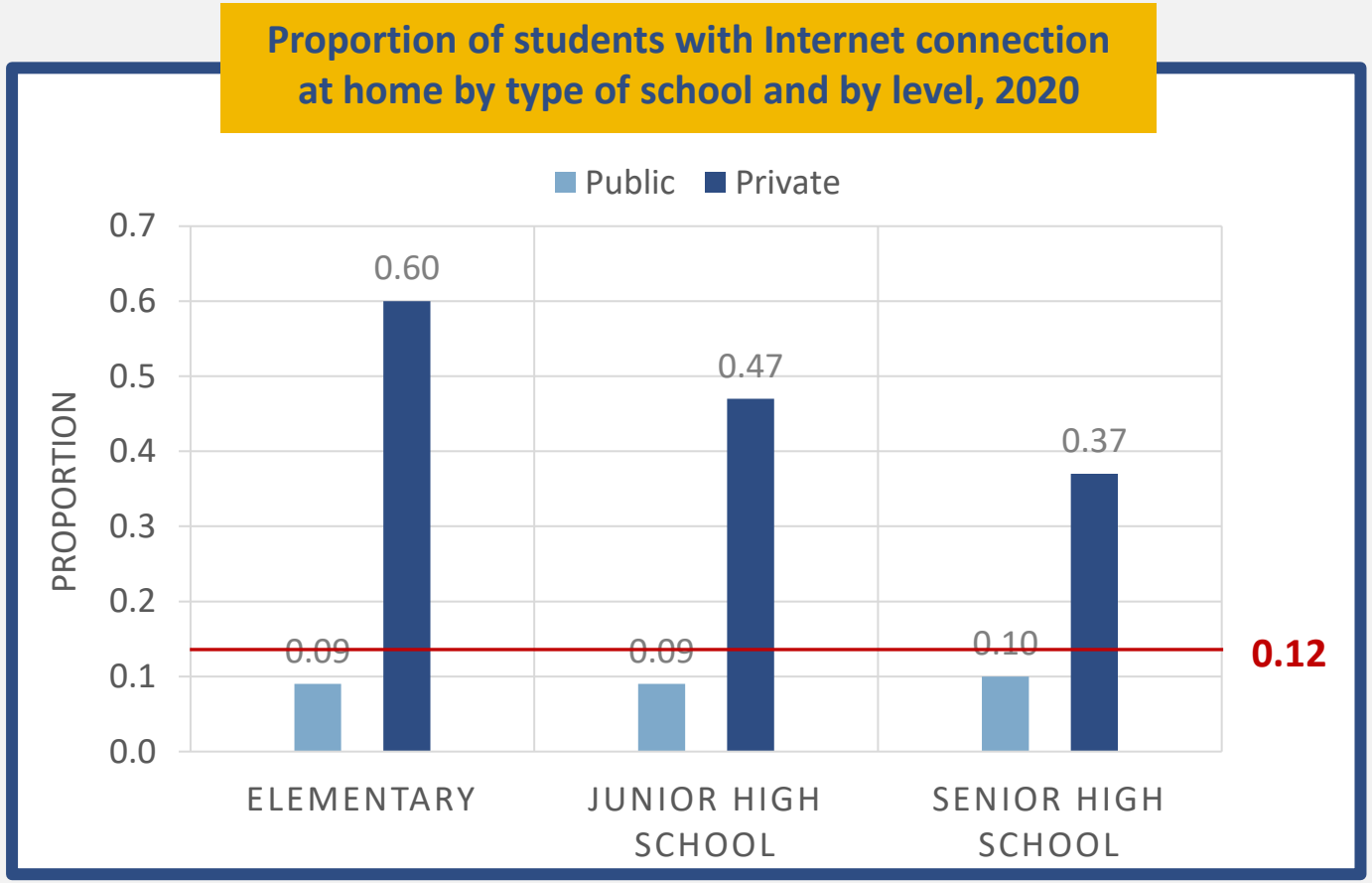
HOME ACCESS TO TV AND RADIO

ACCESS TO CELL PHONES

Reachability of students under remote learning modalities

Home Internet access by students

Access to the internet is significantly **higher among students in private schools** than students in public schools – consistent across region



Source of basic data: PSA (2020)

Reachability of students under remote learning modalities

Home Internet access by students

Correlation of connectivity to broadband at home

Most important correlate is the **presence of broadband infrastructure** followed by the variables: income, family size, and either parent having a high school education

Regression of internet availability and household characteristics

Variables	Standardized Coefficient
Log monthly per capita income	0.3430***
Family size	0.1891***
Parents have HS education	0.1132***
ln urban	0.0786***
Male head	-0.0392***
Log age of head	0.0401***
Head working	-0.0000
Prop of family are children 6-11 years old attending elementary	-0.0024
Prop of family are children 12-15 years old attending HS	0.0032
Presence of broadband infrastructure	0.4536***
Observations	41,839

Note: * $p < 0.5$, ** $p < 0.01$, *** $p < 0.001$

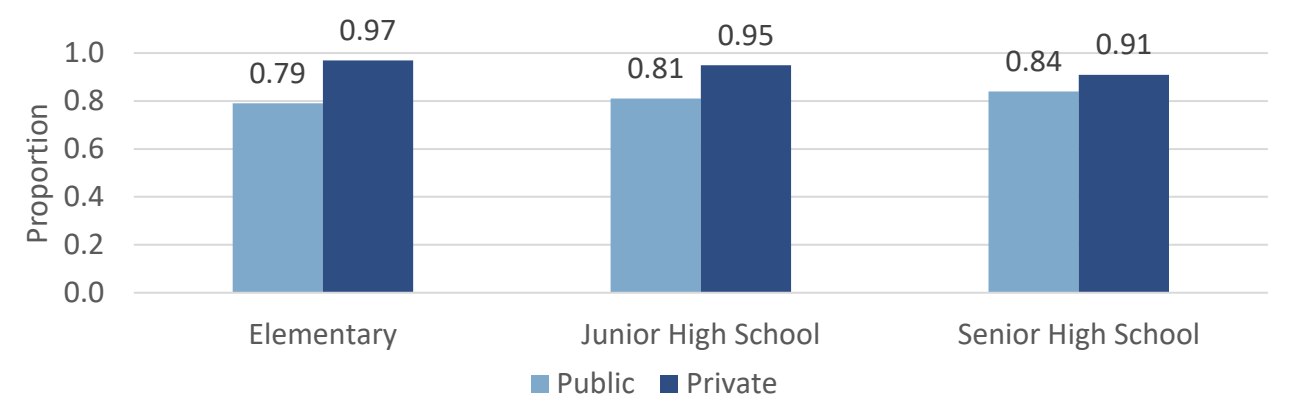
Source: Author's computation using PSA (2020)

Reachability of students under remote learning modalities

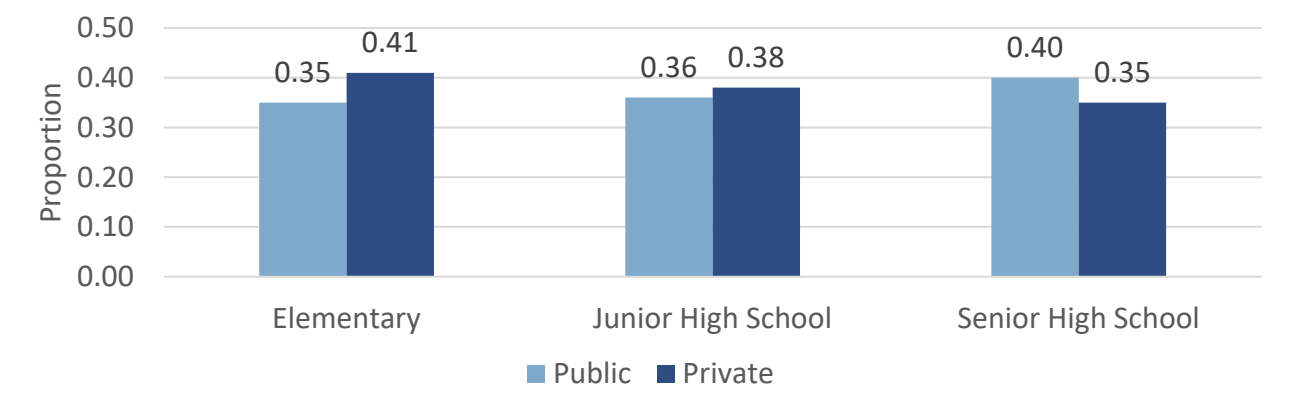
Home access to TV and Radio by students

- **Disparity is not wide** between public and private school students across all levels
- **High proportion of students have TV (above 79%) and radio (above 35%)** at home (however, the data on enrollment by modality do not show a commensurate proportion of users for these modes)

Proportion of students with access to TV by type of school and by level, 2020



Proportion of students with access to radio by type of school and by level, 2020



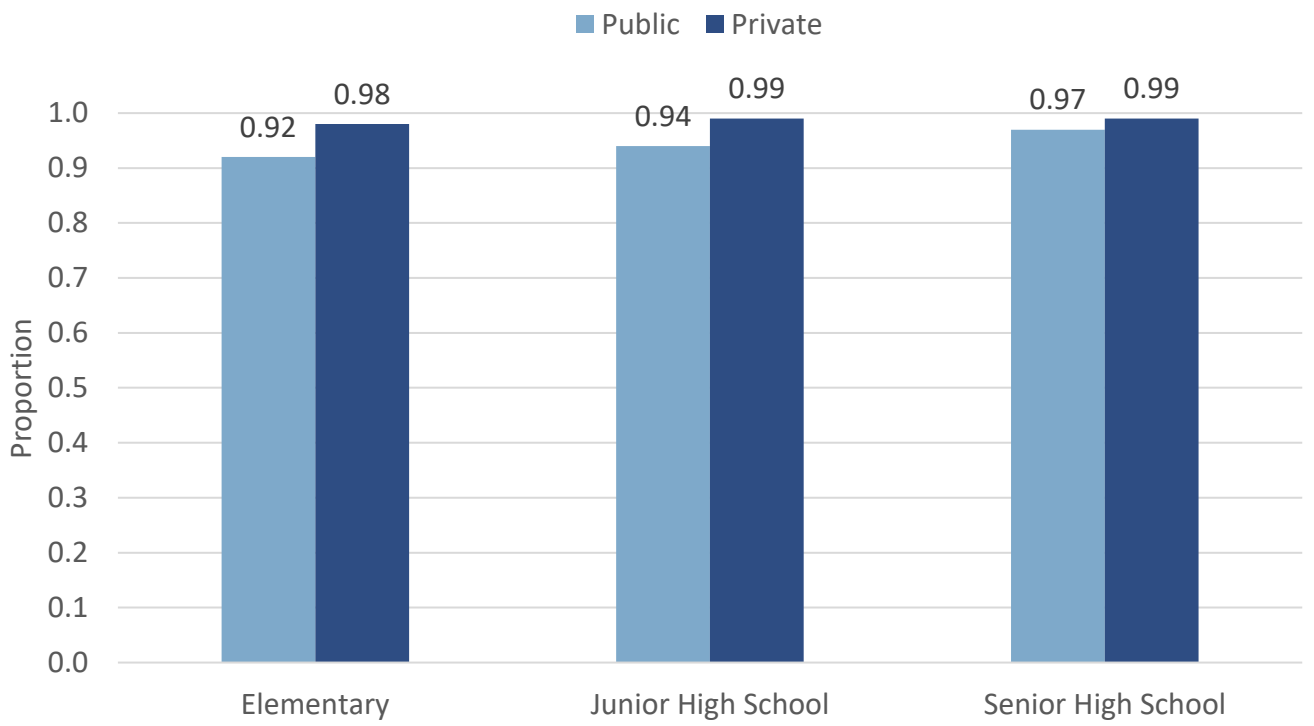
Source of basic data: PSA (2020)

Reachability of students under remote learning modalities

Access to cell phones by students

Near-universal access to cell phones; no significant disparity in access between public and private school students

Proportion of students with access to cell phone by type of school and by level, 2020



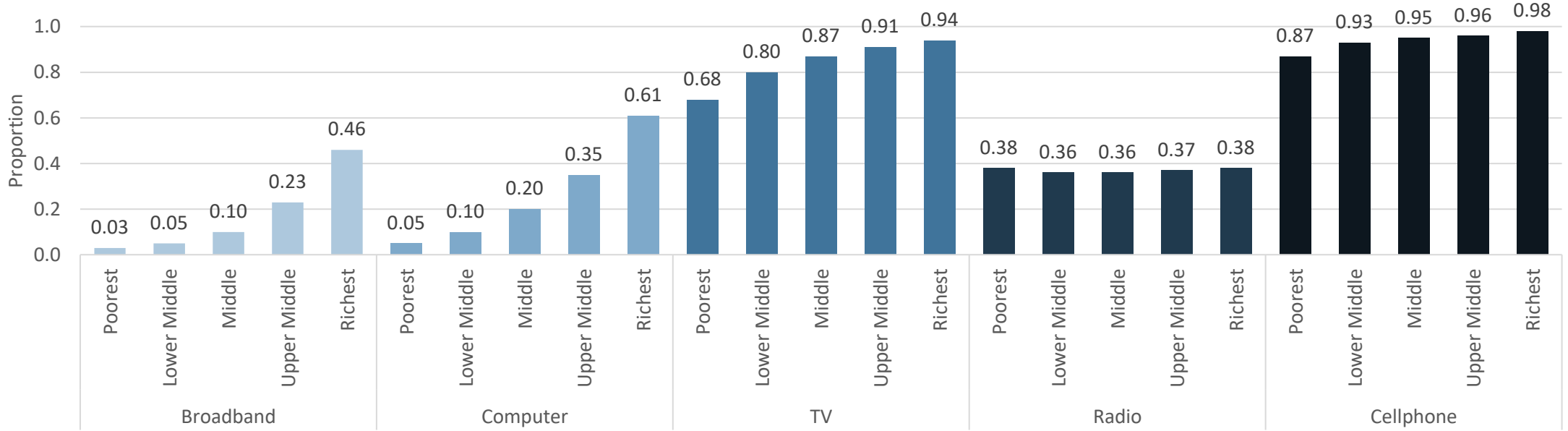
Source of basic data: PSA (2020)

Reachability of students under remote learning modalities

In relation to socioeconomic status

Disparity in reachability by income class shows a wide gap in the access to the internet and having a computer compared to TV, radio, and cell phone

Distribution of households with access to broadband internet, computer, TV, radio, and cell phone by per capita income quintile, 2020



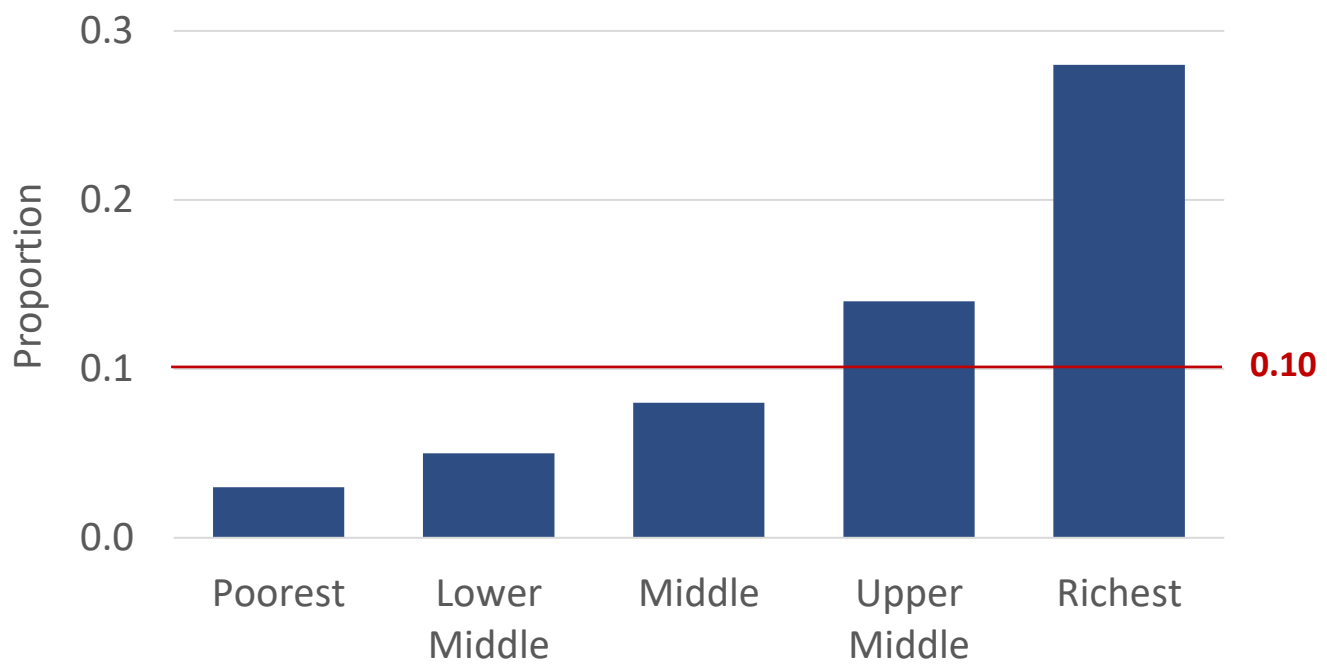
Source of basic data: PSA (2020)

Home Support

Home support greatly influences students' learning attitude, self-regulation, and intrinsic motivation (OECD 2020)

- Quality of home support is **affected by the availability and the ability of parents** to support their children's education needs (i.e., level of parent's education)
- **Quality is lower among children in more impoverished families**

Proportion of parents who are high school graduates by per-capita income quintile, 2020



Source of basic data: PSA (2020)

SUMMARY

01 Most of the students in public schools use printed modules for all levels of basic education—elementary, JHS, and SHS

02 Only in private schools does one find a considerable proportion of students on online and blended learning

03 There is significant disparity in internet access at home between students enrolled in private and public schools across all education levels

04 The availability of the internet at home is correlated to the presence of broadband infrastructure in the area and income

05 The availability of TV and radio is high and there is not much difference between public and private school students – also true for cell phone with even higher availability

06 The distribution of households where either parent a high school graduate also shows a wide disparity across income quintiles

Recommendations and insights

Online mode of learning will not reach most public-school students

- Even if available in public schools, most students do not have access it at home
- The desire to build online learning capacity in public schools will not be the most effective at present

Primary and exigent concern is to support learning of the most popular mode - printed modules

- As the most popular mode of learning, it is critical to support printed modules
- Support may include provision of cell phones and cell phone load to improve interaction among teachers, students, and parents

Education delivery through TV and radio needs to be improved

- Despite high proportion of households owning TV and radio, enrollment data by modality does not show commensurate use of these modes of delivery
- Issues that prevent greater use of these broadcast modalities need to be identified and addressed

Recommendations and insights

Address the disparity in the quality of home support by socioeconomic class

- In the absence of teachers, home support is critical in students' learning – more acute the younger the student is
- Use of LSAs to provide targeted learning support at home particularly for households with lowly educated parents needs to be explored

Address learning disparity by socioeconomic class expected with remote learning

- Home conditions of more impoverished families is expected to be less conducive for learning
- Underscores the importance of:
  - *(i) enabling greater interactivity between teachers, pupils, and parents using printed modules; and*
  - *(ii) Providing home support for children of lowly educated parents*

Recognize the need for remedial measures to address low test scores – even before the pandemic

- Low average test scores in the recent PISA and TIMSS and the call to focus on quality through *Sulong Edukalidad* and the need for massive remedial measures
- Emphasis on students from low-income households

Thank You!

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