



## Key strengths

- Students have generally mastered basic digital literacy skills
- Students are able to make use of general communication software for socializing and information sharing
- Schools and teachers in general are able to use technology and provide some guidance and assistance to students
- There are arrangements in some schools to handle cyberbullying and provide guidance on digital safety
- Some schools, both primary and secondary, have been able to help their students to achieve high digital competence and minimize within-school diversity

## Key challenges

- ▲ Huge divide in digital competence performance across & within schools
- ▲ Digital performance divide ↑ with age
- ▲ Digital divide in home digital access for extensive use in online learning
- ▲ Cyberbullying experience & digital safety issues for all 3 age groups
- ▲ Students lack advanced digital competence: evaluating relevance & credibility of information, need help with digital safety & cyberwellness
- ▲ Only ~40% students receive parental support on digital tech use and safety
- ▲ Lack exposure to extensive e-learning
- ▲ Lack system level digital citizenship curriculum, support for professional & leadership development in schools

## What needs to be done

System level policy guidance & support:

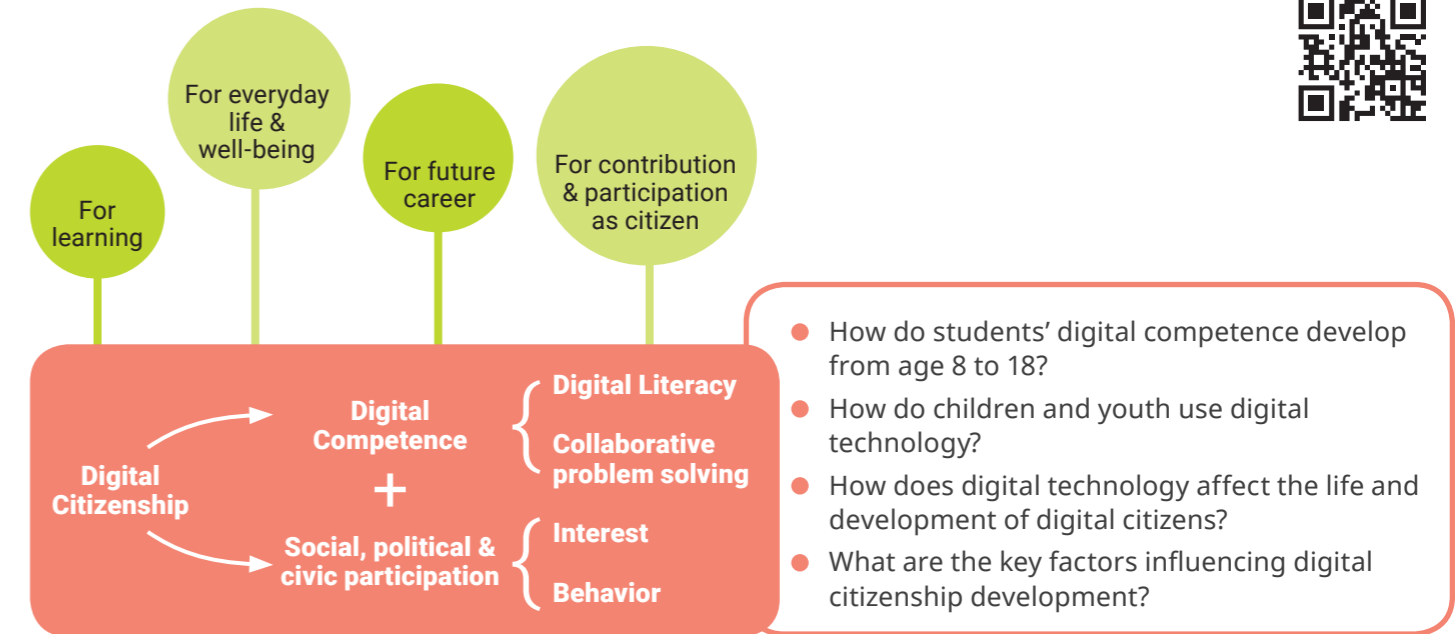
- On technology infrastructure & professional development to schools for productive online learning to be an integral part of school education
- To ensure that students have home access to Internet and personal digital devices matched to online learning provisions offered by their schools
- To develop a core digital competence curriculum for 21st century skills

School level:

- Develop & implement digital citizenship policy & strategic e-learning plan

Parents/community:

- Community network to support digital learning of parents & students

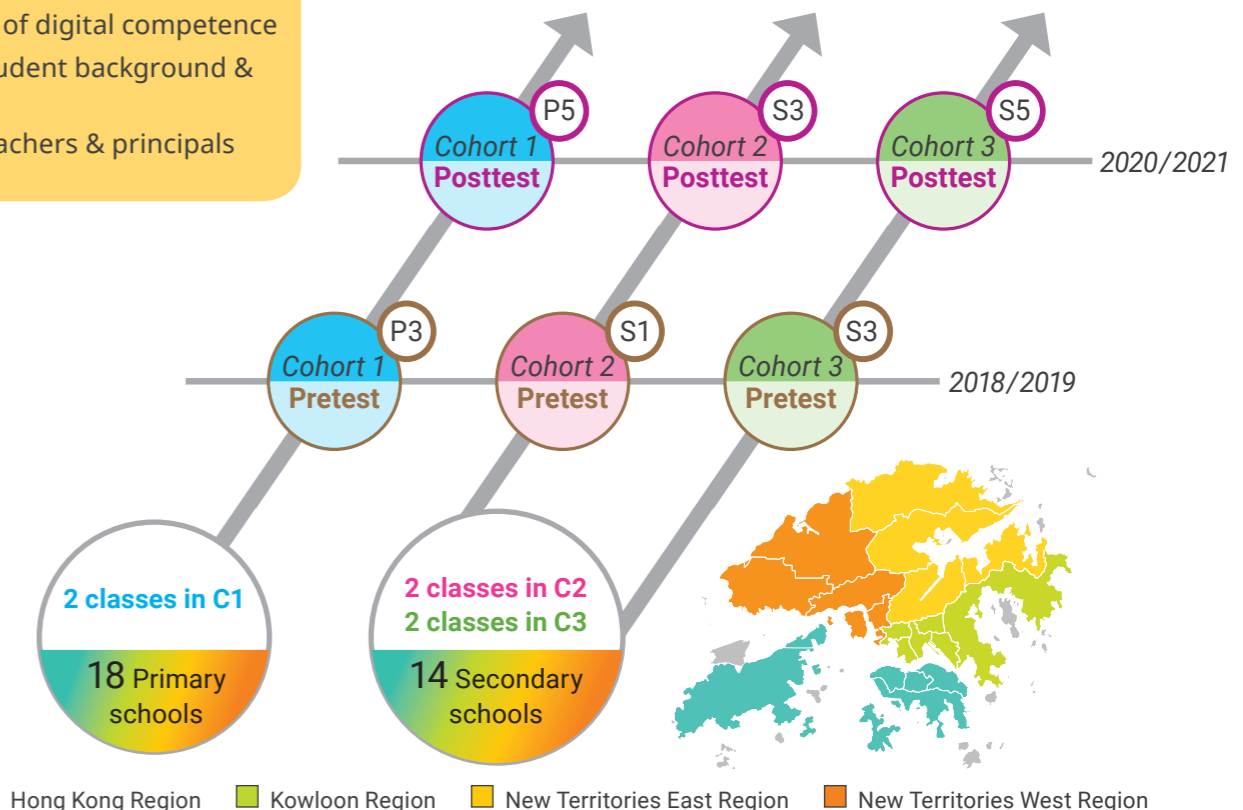


Number of Participating Schools, Classes, Students, Teachers and Principals

Cohort	Schools	Classes	Responses				
			DLA	CPS	SVY	Teachers	Principals
Primary 3	18	39	750	-	736	169	9
Secondary 1	14	27	715	705	711	88	9
Secondary 3		29	581	593	581	104	

### Research instruments

- Assessment of digital competence
- Survey of student background & perceptions
- Survey of teachers & principals



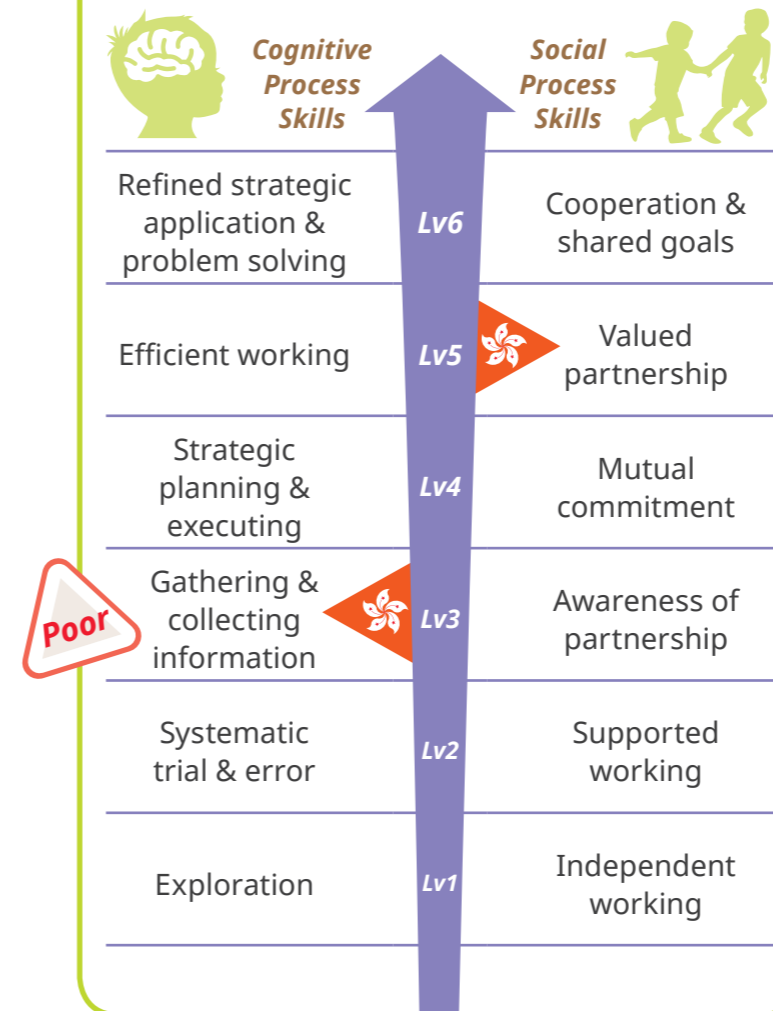
### What students can do

### What students cannot do

<b>Information and data literacy</b>	* Simple search, evaluation & organization of information	* Formulate complex search for highly relevant results, evaluate information
<b>Communication and collaboration</b>	* Simple, routine communications & sharing digital information	* Adapt communication strategy to context, protect digital identity
<b>Digital content creation</b>	* Can use common productivity tools to create, edit, change media	* Identify media uses that violate intellectual property rights
<b>Digital Safety</b>	* Can use simple ways to address risks, protect devices/privacy/content	* Sophisticated safety measures, e.g. identify safe ways to use USB drives
<b>Problem solving using ICT</b>	* Can solve simple device/application problems, e.g. smartphone/bookmark	* Solve complex device + application problems, e.g. no sound in video

## 2 collaborative problem solving (CPS)

### Poor cognitive process skills



## Digital competence & schooling (teachers' responses)

Do you teach and emphasize need to evaluate validity of information?

No, not really **50% of Ts**

Did you have to handle cyberbullying during the past year?

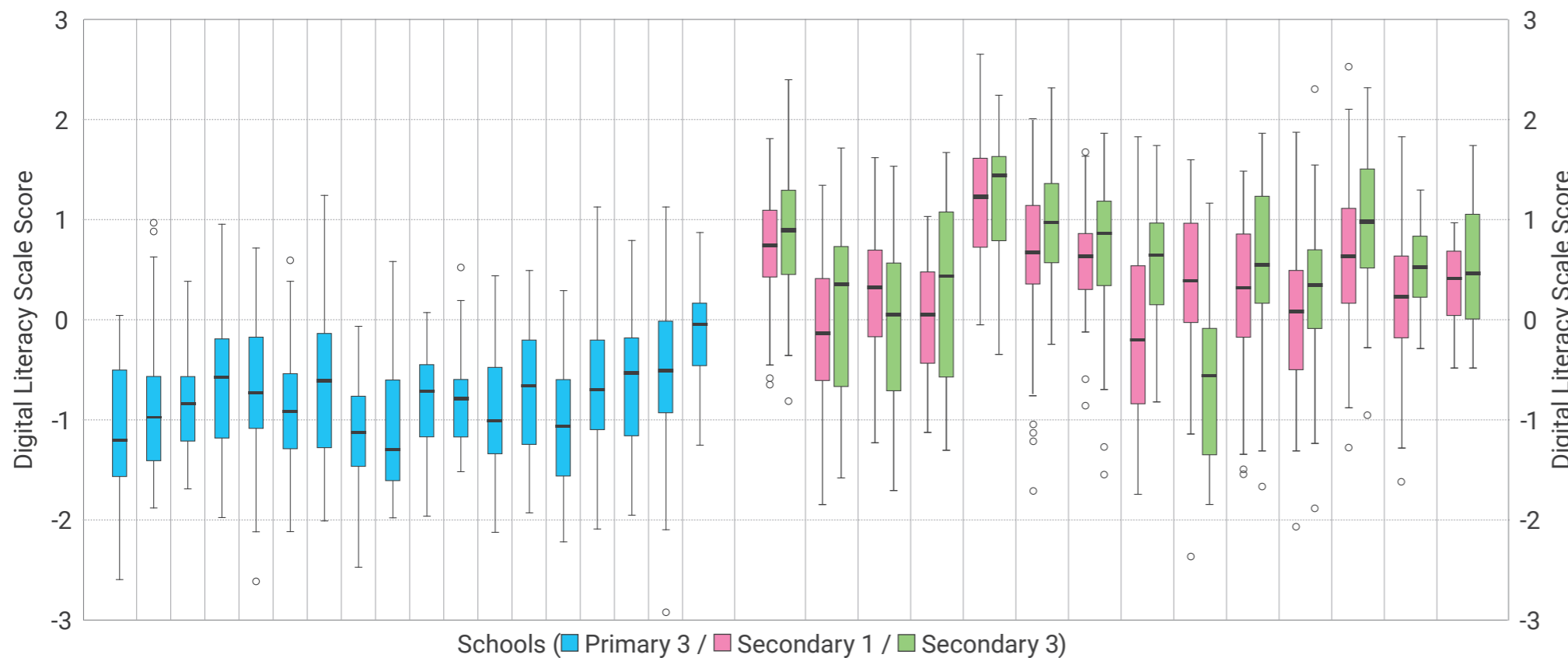
Yes  
22% of PTs  
45% of S1 Ts  
40% of S3 Ts

Is cyberbullying a common occurrence among your students?

Once a month **6% Ts**

Does your school have a cyberbullying policy?

Don't know! **65% PS**  
~50% SS



Boxplots of Primary School Students' Digital Literacy Performance by School

### Digital access at home

- Small percentage have none
- ~10% have only smartphones
- ~half of large screen access has to be shared

### Digital wellness

- ~35% students experienced cyberbullying
- Cyberbullying victims are more likely to be perpetrators
- ~10% have lost money in online scam
- Over half of S3 students reported risky online behavior

### Digital wellness & digital competence

- Moderate digital gaming correlates with higher digital competences
- Cyberbullying experience associated with lower digital literacy score
- Higher digital competence correlates with better online safety