Co-creating a New Normal of Empowered Learning through Digital Citizenship Research

Team leader: Nancy Law

Team members: Catherine K.K. Chan, Jimmy de la Torre, Elizabeth K.Y. Loh, Nirmala Rao, Frank Reichert, C.Y. Tan, Gary K.W. Wong, Patrick Lam, Landon M. Lan, Qianru Liang, Qianqian Pan, Yuxiao Zhang

Faculty of Education

Date of Submission: May 17, 2021
Summary of the Impact

- *The Learning and Assessment for Digital Citizenship (eCitizen) Project* wave 1 study findings released in April 2020 revealed huge intra- and inter-school divides in digital literacy (DL) achievement among primary and secondary students within and across schools. School e-learning experience had minimal contribution to students’ DL achievement. The media and the public immediately realized the serious implications for online learning during COVID-19 induced school suspension.

- *eCitizen Education 360 (e360)* was launched in May 2020 with wide support from the education sector, NGOs and charities as an action-focused comprehensive 360-degree survey study to guide evidence-based community-wide action to support the learning of students, families, schools and teachers under the New Normal.
Underpinning Research  (outline to explain quality)

- **eCitizen project goal**: to study the impact of digital media on the learning lives of children and youth, and on their development as citizens in an increasingly technology-intensive and globally connected world

- **Nature of project**: multi-pronged interdisciplinary research

- **Grand challenges addressed by eCitizen**:
  - Developed valid and reliable assessments of digital citizenship (with digital literacy (DL) at the core).
  - Develop innovative methodologies, including connected surveys to understand how various contextual factors influences DL development

- **eCitizen Education 360 research goal**: using an ecological framework to identify *online learning and teaching preparedness* factors for students, teachers, school leaders, parents, and school level e-learning strategy.

- **eCitizen Education 360 research findings**: discovered the key pre-existing conditions at multiple levels of the school ecology and their interactions that contribute to the online preparedness factors for different stakeholders, based on which action-oriented recommendations can be derived.
Underpinning Research (when, who, & researcher roles)

- **When conducted?**
  - eCitizen: Nov 2016 to March 2021, Wave 1 results released Apr 2020
  - The research reported here are all conducted by the eCitizen research team, and the core members who contributed to this research are listed on p.1, with roles as follows:

- **Who are involved and their roles:**
  - PI: Nancy Law (PI for both eCitizen and e360)
  - Co-PI for eCitizen (Jimmy de la Torre, Nirmala Rao), co-I for eCitizen (Elizabeth K.Y. Loh, Frank Reichert, Gary K.W. Wong), Postdocs for eCitizen (Landon M. Lan, Qianqian Pan), research staff for eCitizen (Patrick Lam, Yuxiao Zhang), PhD in eCitizen (Qianru Liang)
  - Co-PI for e360: C.Y. Tan,
  - KE advisor for eCitizen and e360: Catherine K.K. Chan
Underpinning Research

We have broken new grounds in measurements of DL & context.

Measuring digital literacy across three age cohorts: Exploring test dimensionality and performance differences

Kuan-Yu Jin, Frank Reichert, Louie P. Cagasan Jr., Jimmy de la Torre, Nancy Law

Faculty of Education, The University of Hong Kong, Pok Fu Lam Road, Hong Kong SAR, China
Hong Kong Examinations and Assessment Authority, 246 Queen’s Road East, Wan Chai, Hong Kong, Hong Kong SAR, China
Assessment, Curriculum & Technology Research Centre, UP-CIDP, Ateneo de Manila Alumni, Magdalen Avenue, University of the Philippines, Diliman, Quezon City, 1104, The Philippines

Do background characteristics matter in Children’s mastery of digital literacy? A cognitive diagnosis model analysis

Qianru Liang, Jimmy de la Torre, Nancy Law

Faculty of Education, The University of Hong Kong, Hong Kong SAR, China
Instruments revealed huge diversities in digital literacy achievement among primary and secondary students within and across schools.
The research reveal multiple interacting factors (school and family) influencing students’ and teachers’ online learning & teaching effectiveness

Underpinning Research (Significance of the key insights or findings from the research)
Engagement  
(Engagement process)

- eCitizen Wave 1 findings were disseminated through a widely publicized online press release on 20 Apr 2020, with support from the Faculty ER team and the HKU CPAO.

- Realizing the gravity of the implications ensuing from the digital divides identified, different stakeholder groups and charities reached out to eCitizen team to encourage us to undertake further research to provide evidence-based recommendations to guide learning and teaching under the New Normal.

- Advisory Committee for e360, set up in May 2020 and involving stakeholders from diverse sectors, played a key role in the pathway to impact for this phase of the research, contributing to the formulation of the research questions and instruments.

- The analysis and dissemination of findings was done in planned phases to provide evidence-based recommendations for action in order of urgency.

- Based on an ecological model that conceptualizes the experiences and outcomes for different stakeholders as dependent on pre-school-suspension conditions and their interactions, the team developed constructs to identify critical online learning preparedness factors, and the coping strategies of students, parents, teachers, and schools during the school suspension period.

- e360 findings disseminated through press conferences, research bulletins and seminars provide holistic actionable recommendations for different stakeholders, including school leaders, teachers, parents NGOs and charities.

- Recommendations address issues such as effective school e-learning team structures and strategies, teacher professional development priorities, and working with parents, and elaborated by project partners in community-based dissemination events.
Engagement

Advisory Committee was set up with the support from organizations. The e360 was launched within a month of the release of the eCitizen Wave 1 research findings is remarkable, indicating the recognition of the urgency of the problem and the need for the community to make concerted efforts to address the problems.

Supporting organizations:
- The HK Jockey Club Charities Trust
- Association of I.T. Leaders in Education (AiTLE)
- The Boys’ & Girls’ Clubs Association of Hong Kong (BGCA)
- Cyberport
- The HK Association for Computer Education (HKACE)
- HK Association of Careers Masters and Guidance Masters
- HK Association of the Heads of Secondary Schools
- HK EdCity
- HK Playground Association
- HK Subsidized Secondary Schools Council
- Union of Government Primary School Headmasters & Headmistress
Engagement (Innovativeness of the engagement approach)

The pathway to impact during the e360 phase did not follow the conventional route of dissemination after the project ends. We engage stakeholders in the formulation of the research questions and instruments. The analysis and dissemination of findings was done in planned phases to provide evidence-based recommendations for action in order of urgency.

- **Developed constructs to identify critical online learning preparedness factors**
- ** Invite all schools in Hong Kong to participate**
- **Survey conducted online**
- **First release of findings**
- **2nd, 3rd, 4th, and 5th release of findings**
- **Seminars for sharing**

- **May 2020**
- **May**
- **June**
- **June to July**
- **July**
- **From Aug 2020 onwards**

*Figure 1. Map showing geographic location of primary and secondary schools in the sample*
Impacts Achieved

(Beneficiaries: non-academic sector(s) )

The online press releases and seminars were widely publicized through print and social media as well as radio interviews. The recommendations were taken up by charities and NGOs.
Impacts Achieved (Beneficiaries: underprivileged families)

Underprivileged families benefitted from actions of Charities. For example, Zonta Club of Hong Kong took fast, multi-pronged action to provide laptops and simcards to needy students, as well as launched a Mothers Helping Mothers e-channel to help mothers learn digital literacy skills to support their children’s online learning.

- 200 families benefited from Zonta Club
  (link1, link2, link3)
The Boys’ & Girls’ Club Association of Hong Kong (BGCA) launched a Community Digital Competence Hub to provide teachers and parents with learning resources, talks and activities to help them develop the necessary digital competence and to recognize and reduce the probability of falling victim to cyber-risks. (link)

The cyberbullying issues uncovered in the Wave 1 findings helped the Hong Kong Playgrounds Association (HKPA) reach out to schools and promote their program on Youth at Cyber Risk Support Service. HKPA indicated that many schools and teachers are not aware of the extent to which HK students are impacted by various forms of cyberbullying. (link)
Impacts Achieved  (Beneficiaries: teachers and school leaders)

Principals and senior teachers from primary and secondary schools interpret and translate the recommendations from the e360 findings based on the experience from their schools.

How to form the school team to spearhead innovations and e-learning for teammates to move along?
Impacts Achieved (Beneficiaries: teachers and school leaders)

Principals and senior teachers from primary and secondary schools interpret and translate the recommendations from the e360 findings based on the experience from their schools.

Characteristics of progressive innovative teachers: insights for schools in the New Normal

School-based Professional Development – Building Trust, Collaboration and Innovation
Impacts Achieved (Beneficiaries: teachers and school leaders)

Principals and senior teachers from primary and secondary schools interpret and translate the recommendations from the e360 findings based on the experience from their schools.

Developing the school’s capacity for digital learning—support mechanisms for teachers.

How can teachers better prepare for the New Normal
Impacts Achieved  (Nature and extent of the impact)
Invited talks – local charities and school organizing bodies

• Law, N. (10 Nov 2020). *Divide, Social Divide and online learning: insight from research before and during the pandemic.* Invited luncheon talk for Zonta Club’s Project ABC, China Club. [link]
Impacts Achieved  (Nature and extent of the impact)

Invited talks – International conventions


Impacts Achieved  (Nature and extent of the impact)

Invited talks – international academic community


Impacts Achieved (Nature and extent of the impact)

Research featured on international media

HKU Study Confirms Pre-Suspension E-Learning Preparedness And Family Support Critical For Students’ Online Learning Success, Calls For Comprehensive Measures To Enhance Online Learning Preparedness

A research team led by Professor Nancy Law, Deputy Director of the Centre for Information Technology in Education, and Dr Tan Cheng Yong, Academic Unit of Social Contexts and Policies of Education (SCAPE) of the Faculty of Education, the University of Hong Kong (HKU), released the first of a series of six bulletins today (July 20) based on the data collected during school resumption from June to July 2020. The study is entitled “eCitizen Education 360”, which aims to collate the experience and needs of schools, teachers, students and parents in the transition to a fully-fledged online learning experience during school suspension and their needs thereafter, with a view to taking joint school and community actions to shape quality learning and teaching to prepare for the new normal of many uncertainties. The survey was met with the enthusiastic support from over 1,200 teachers, 1,300 parents and 6,000 students from primary, secondary and special schools.

Key findings
Effort of schools and parents to sustain learning paid off:
- With the effort jointly made by schools and parents, learning was sustained throughout the school

Thank you!