



## Press Release

### **HKU Faculty of Education study found teachers with “Progressive Innovator” qualities excel in effective online teaching under the New Normal**

A team of researchers led by Professor Nancy Law, Deputy Director of the Centre of Information Technology in Education, and Dr Tan Cheng Yong, Associate Professor, Academic Unit of Social Contexts and Policies of Education of the Faculty of Education, the University of Hong Kong (HKU), released their third report for the eCitizen Education 360 study this afternoon (3 November). The latest research results focus on teachers’ online teaching experience during the school suspension period due to COVID-19. The findings shed light on how we can help teachers to better prepare for the new normal.

#### Key Message

Analysis of three key constructs from the teacher survey — importance of student-centred pedagogy, perceived impact of online teaching, and willingness to implement online teaching after school resumption — yielded four categories in teachers’ orientations regarding online teaching: “Progressive Innovators”, “Cautious Explorers”, “Conservative Explorers” and “Traditional Instructors”. Among these four groupings, **“Progressive Innovators”** have **significantly higher *Online Teaching Preparedness and self-efficacy***.

There are no significant differences in the distribution of teachers among the four categories with respect to their teaching experience and school levels (i.e. primary or secondary). In other words, **all teachers have the potential to become a “Progressive Innovator”**. The only notable exception is the slightly higher proportion of young teachers (aged under 30) in the class of “Progressive Innovators”.

The study also revealed that the **more teachers participate in collaboration related to online teaching at school**, particularly on **sharing pedagogy**, the higher the perceived effectiveness of their online lessons and their willingness to further explore online teaching pedagogy.

In raising teachers’ Online Teaching Preparedness, what is conceived as most challenging is using online learning platforms and digital resources to design and promote interactive learning, conduct e-assessment and give e-feedback, and developing critical thinking and creativity online.

#### Detailed findings

1. **In-depth collaboration on digital pedagogy cultivates “Progressive Innovators”**. Through applying a statistical method called Latent Class Analysis (LCA), the research team classified teachers’ online teaching orientation based on their perceived importance of student-centred pedagogy, perceived impact of online teaching during the school suspension period and willingness to explore online teaching after face-to-face teaching resumed. Four groupings (latent classes) were identified: “Progressive Innovators”, “Cautious Explorers”, “Conservative Explorers” and “Traditional Instructors”. Among them, the “Progressive Innovators” are characterised by placing the highest importance on **student-centred teaching** prior to school suspension, holding a more positive view of online teaching during school suspension and having the highest inclination to adopt online learning after school resumption for its potential to cater for learner diversity through online remedial/enrichment provisions and to support students’ self-directed learning. Moreover, “Progressive Innovators” were significantly more active,

particularly when compared with “Traditional Instructors”, in collaborating with colleagues in making online teaching arrangements, particularly regarding the sharing and joint development of online pedagogies, using Learning Management Systems (LMS) and digital resources for interactive learning, and using instant messaging and videoconferencing software to teach and communicate with students.

2. **The capacity to adopt student-centred pedagogy and to design and implement online interactive learning are key to enhancing teachers’ Online Learning and Teaching (L&T) Preparedness.** The statistical method Structural Equation Modelling (SEM) was adopted to investigate the factors that influence teachers’ online teaching self-efficacy, perceived impact of online teaching on students during school suspension, and their inclination towards continuing online teaching implementation after school resumption. The findings show that the intensity of teachers’ collaboration within their schools regarding online teaching, particularly through in-depth sharing and joint work on online pedagogy, such as through observation and discussion of each other’s lessons, has the largest positive effect on teachers’ confidence in designing and implementing online teaching. At a personal level, the importance that teachers attach to student-centred pedagogy is significantly positively related to teachers’ online teaching self-efficacy which is also found to be a positive predictor of their self-perceived competence in using LMS and digital resources for student-directed interactive learning, which in turn impact their inclination towards continuing to adopt online L&T after school resumption.
3. **In terms of online L&T, fostering critical thinking and creative capacities, and using data to support the assessment and feedback are much more challenging than producing teaching videos and using Zoom.** The team constructed an item-difficulty map based on Item Response Theory (IRT) to understand the difficulties teachers face during online teaching. The results confirmed that most teachers are capable of conducting basic online teaching, such as uploading a self-made video and using videoconferencing tools (e.g. Zoom). In contrast, teachers perceived the following as more difficult to do (indicated by lower endorsement rate/ lower utility rate): designing a student-centred online lesson and implementing it on a LMS, using digital technology to develop students’ **critical thinking and creativity**, using data to support students’ reflection on their own learning and providing feedback. The findings provided a clear direction and priorities for teacher professional development.

**Based on the research findings, the team puts forward the following recommendations:**

1. **Policy and system level:** Through Centres of Excellence or similar bodies, expand the professional network among **teachers and schools to foster Online L&T Preparedness**, leveraging the use of online learning data for assessment and feedback, and for advancing teachers’ ability to make use of data to improve learning and teaching.
2. **School leadership level:** Expand the professional networks within and between schools, establish and/or strengthen the e-learning coordination teams’ professional development roles and functions, deepen teachers’ in-depth sharing and collaboration regarding both online and blended teaching pedagogies to help more teachers become “Progressive Innovators”.
3. **Individual teacher level:** Strengthen personal professional confidence and competence in the age of the New Normal through leveraging the learning opportunities offered by various professional and supporting networks, with special attention to enhancing one’s ability to design and implement student-centred, interactive, online learning that can foster students’ **critical thinking** and creativity.

**Professor Nancy Law** pointed out, “our primary and secondary students now will be the pillars of our society and digital global citizens in the coming decades. As educators, we shoulder more important responsibilities than ensuring curriculum coverage. What really matters is the willingness to keep pace with the times, actively expand our professional networks, improve our capacity for online L&T practices that are student-centered, capable of catering for learner diversities. We also need to be our students’ learning partners under the New Normal, providing learning opportunities that nurture their digital citizenship capacity, including digital literacy and collaborative problem solving. The pandemic will eventually pass. The challenge for our society

and our schools is whether we could seize the opportunity to effectively enhance our Online Teaching Preparedness and enable more of our teachers become 21<sup>st</sup> century ‘Progressive Innovators’.”

**Dr Tan Cheng Yong** also shared, “The most reassuring findings are not the wonderful performance of the ‘Progressive Innovators’. What pleased me most is the fact that the probability of a teacher being classified into anyone of the four groupings is not affected by their length of teaching experience or whether they teach in a primary or secondary school. In other words, **all teachers have the same potential** to be a ‘Progressive Innovator’. The key enabling factors are deep collaboration with colleagues on online pedagogy, openness to sharing classroom practices and the commitment to supporting students in developing according to their own capacity.”

### **About “eCitizen Education 360”**

The prolonged period of fight against COVID-19 and school suspension has posed huge challenges to every member of the education community. The tremendous effort of schools in sustaining learning online has not only overcome limits presented by social distancing, but inspire a new chapter of educational transformation as schools resume. The project is a comprehensive 360-degree survey study with widespread support from academia, parents, professionals and community organisations. By gathering information about the experiences and needs of primary and secondary schools during the periods of school suspension and resumption, we aim to enhance our comprehensive capacities to act as a community to improve the education opportunities, digital competence and well-being of students. These would also enable them to cope with various aspects of life in the fast-changing world in which digital technology plays a pervasive role.

This issue is based on the data collected during school resumption from June to July 2020, in a study entitled “**eCitizen Education 360**”. The first two batches of research findings were released on July 20 and August 25, 2020 respectively.

For more details of the “e-Citizen Education 360” Project and the report, please visit <https://ecitizen.hk/360>. To review the e-version of the press release, and download photos, presentation file and further reference materials, please visit <http://web.edu.hku.hk/press>.

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