



Ministry of Education Youth and Sport Education  
Department of Policy

## Policy Brief

# Blended Learning: Practices, Challenges and Possibilities in Cambodia Secondary Resource Schools

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## Introduction

The Covid-19 pandemic has created educational disruption around the world, by forcing schools to close their doors to curb the widespread of the virus. At its peak in April 2020, it is estimated that more than 1.6 billion students worldwide were locked out of their schools (Dita Nugrohoi et al. 2020). To keep learning going on, schools had no choice but to swiftly switch from the traditional physical classroom to new forms of remote teaching and learning modalities such as paper-based worksheets, broadcast media through TV and radio, mobile phone, and digital online platforms (UNESCO et al. 2021). Some countries have attempted to reopen their school system only to see it being disrupted again and again by another wave of outbreaks. On March 16, 2020, the Government of Cambodia decided to close all learning institutes, including public and private schools as preventive measures in response to the increase of Covid-19 infected cases. Although all schools were reopened to start the new academic year this January 2021, the 20 February incident has forced the government to close schools nationwide and move to distance learning again. A joint Covid-19 assessment in Cambodia conducted by MoEYS in collaboration with development partners in 2020 found that only 70% of students engaged in some form of alternative distance learning and only 35% of them had access to online learning materials (MoEYS and ESWP 2021). With the pandemic still widely ranging and getting severer in Cambodia, the hope of going back to the “old standards” is shrinking and the imperative of the “new normal” becomes more and more obvious.

In the 2000s when the internet is widely accessible, online learning, along with other forms of distance learning, has been integrated into or supplemented to the traditional classroom, mostly in developed countries. The partial integration of online learning to the physical classroom with some element of student control over the learning process is called blended learning (Horn and Staker 2015; Graham 2012). Blended learning is found to be effective to help underperformed students improve their learning

or provide more options for small and remote schools that cannot offer courses with highly qualified teachers in certain subjects. Although the Covid-19 outbreak has brought many challenges in education, it has helped accelerate online learning rapidly and blended learning has become a buzzword among researchers and practitioners in the field of education. Online learning is expected to forever change the way students learn and that online learning and teaching. It is likely to remain as a part of classroom learning, blending with the traditional mortar-and-brick learning even after the pandemic.

## **Rationale**

There are also many challenges in implementing or integrating online learning effectively, especially in developing countries like Cambodia (MoEYS and ESWP 2021, World Bank 2021). Some key challenges in delivering distance learning during the Covid-19 pandemic include teacher and student unreadiness to adopt new technologies, lack of needed digital devices, limited institutional capacity to support teachers, and poor access to the internet in rural and remote areas. However, Online learning can provide new opportunities and flexibilities that can be personalized to student needs and levels. Yet, the Covid-19 pandemic came when most education systems and teachers were not ready to reap its benefits (Schleicher, 2021). The evidence on the effectiveness of online learning is still nascent in the context of developing countries, but it is clear that the mere supply of online learning is not sufficient to induce take-up, student engagement, and effective learning. Understanding online learning and teaching practices on the ground during the pandemic and the level of teacher technological readiness can be indispensable inputs for future policy discussion on how to make education systems more resilient against future shocks and uncertainties. In this sense, this study intends to examine the current practices, challenges and possibilities of online learning that can contribute to building back a more resilient education system in Cambodia.

## **Online Teaching During the Covid-19 Pandemic**

Nearly all (94.47 percent) of the interviewed teachers have experienced teaching online after the school closure in March 2020. Among those who were teaching at the time of interviews, about one-third (33.4 percent) of them have completely switched back to physical classroom, 59.9 percent still taught online 100 percent and another 6.7 percent used both online and traditional off-line approach in their teaching. The degree of switching back to complete off-line teaching greatly varies from school to school. While virtually all teachers at some schools have completely returned to physical classrooms, all teachers at some schools still continued teaching. It is worth pointing out that in November 2021, MoEYS allowed grades 9 and 12 to resume physical classrooms so that students can prepare for their examinations. On the same day the data collection was started (November 01, 2021), MoEYS expanded the school reopen to all grades from primary to upper secondary education. female teachers and teachers at general schools

in rural areas have a higher rate of staying teaching online without returning back to physical classrooms or combining online and offline teaching approaches. While nearly half of the teachers in urban areas have returned to off-line classrooms (either completely or partly), more than 70 percent of teachers in rural areas still continued using online teaching as the only option to deliver their teaching.

### **Teacher Capacity Development During the Pandemic**

Nearly 80 percent of the sampled teachers participated in some sort of capacity development activities after the school closure in March 2020. To put it in other words, over one-fourth of teachers (22.4 percent) did not join any capacity development program during the school closure. among various capacity development activities, attending training courses or workshops (57.2 percent) is the most common activity, followed by attending education conferences or seminars (26.6 percent) and conducting individual or collaborative research (21.7 percent). Some teachers also took part in professional networking, mentoring and peer observation activities, yet they are less common activities undertaken by Cambodian teachers, at least during the school closure. Male teachers and teachers in urban schools at resource schools are more active or have more opportunities in joining capacity building activities. While the share of teachers attending training courses at general schools is at 41.7 percent, the share at resource schools is at 64.4 percent. Male teachers are more likely to join training courses and conduct individual or collaborative research than female teachers. Similar patterns are found between teachers in urban and rural schools.

Nearly two years after the school closure, most secondary school teachers thought they don't have adequate capacity for conducting effective online teaching, as nearly 90 percent of those who took part in capacity development activities claimed that training courses they received were not sufficient for them and indicated desire to receive more capacity development programs in the future. Female teachers in rural schools are in higher need of more capacity building activities. Interestingly, teachers at resource schools also showed more interest in having additional training than teachers in general schools, although they had more opportunities to join training programs during the school closure.

### **Factors Influencing Teacher Readiness for Online Teaching**

The regression results show that individual characteristics that have influences on teacher readiness for online teaching include gender, age, perceived challenge in conducting online learning and perceived effectiveness of online learning. Male teachers are very likely to be more ready to effectively use technology in their classroom teaching as they have higher scores of Technological Pedagogical Content Knowledge (TPACK) and the other four outcomes of interest. Holding other factors constant, the TPACK score of male teachers is 0.230 higher than their female teaching peers. Age is also consistently found to be negatively associated with teacher readiness. This means that the older teachers become, the

more difficult it is for them to adopt educational technologies in all estimation. One-year increase in age reduces the TPACK score by 0.011 and the association is statistically significant at 1% level. Teacher perception on challenges in conducting online teaching is positively correlated with teacher readiness. Its effect is in particular large on the technological knowledge (TK) component. To put it in other words, those who think it is challenging to conduct online classrooms are likely to possess low general knowledge and skills on technology. Another noticeable factor is teacher perception of the effectiveness of online teaching.<sup>1</sup> It is positively correlated with all components, except TK. However, the study does not detect any significant relationship between the level of education and teacher readiness for online teaching.

Two factors related to access to technology, use of computers and hours of internet uses for teaching purposes in the past seven days, were added in the estimation models. Teachers who used computers in the last seven days seems to demonstrate a higher level of readiness and its relationships are statistically significant between 5% and 10% levels. However, the correlations between duration teachers spent on the internet and teacher readiness are statistically insignificant in all five models.

Another interest of the study is to investigate school factors that influence teacher readiness. Location, type and size of school are found to affect teacher readiness for online classrooms. In comparison to their provincial peers, teachers working at schools in Phnom Penh have higher scores of TPACK by 0.209 and this factor also positively correlated with TCK and overall scores. Another surprising finding is that teachers at resource schools tend to be less ready than teachers at general schools. In addition, school facilities seem to have no effect on teacher readiness as well. Our teacher survey also reveals that a good proportion of teachers have access to computers and other ICT facilities at their schools, but they do not use it. A majority of teachers mainly used smartphones, instead of computers, for online teaching. The size of schools measured by the number of teachers is found to have negative effects on TPACK and overall score, but not the other three outcomes of interest.

### **Implication**

Findings from the study suggest that virtually all teachers at secondary school have experience teaching online during the school closure, although lesson delivery approach can vary. However, soon after the MoEYS announced school reopening a large number of teachers completely shifted back to off-line teaching and learning and very few teachers combine both online and off-line teaching approaches. Coupled with the insufficient materials for online teaching, the fact that a majority of teachers deliver their online teaching through smartphones due to limited access to computer and technology knowledge suggest that online classrooms are less interactive and of lower quality. In the three knowledge domains,

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<sup>1</sup> We asked teachers to rate online effectiveness from 0 to 100.

Cambodian teachers relatively score the lowest in technological knowledge and the highest in pedagogical knowledge. At individual levels, factors that are found to have influenced teacher readiness include gender, age, perceived challenge, and perceived effectiveness of online classroom. Teaching experience at private school and student-teachers interaction are also found to have positive effects on readiness, while teacher education and training seems to be rather ineffective in preparing teachers for online classrooms. Having access to computer can improve teacher readiness, yet it seems teachers do not benefit from school facilities. It is also reflected by the fact that a large proportion of teachers have access to school computers and other facilities but they did not use it. Teachers in Phnom Penh are more prepared for virtual classrooms, while teachers at resource schools are less ready to embrace technology in their teaching.

- Nearly all teachers reported that their initial teacher training programs did not well equip them with sufficient skills and knowledge for online teaching and also need more in-service training programs to do so. In this sense, there is a need to revisit teacher training curricula and examine if more EdTech courses should be introduced in the programs as well as to provide systematic in-set training courses on EdTech for active teachers. Female and older teachers also deserve extra support as they exhibit a lower level of readiness.
- With the current trends (at the time of the survey), online learning is unlikely to stay after the pandemic and a majority of schools and teachers will return to the physical classroom as normal. Considering the benefits and potential of online learning and uncertainties in the future, MoEYS should make extra efforts to keep the online approach as a part of learning and teaching, at least at schools with adequate resources. If used effectively, online learning can supplement traditional physical learning and teaching to enhance educational quality and reduce inequality.
- A large majority of teachers had access to school computers and other digital devices but did not use them. There should be a further investigation on the reasons behind the underutilization of the school resources and how these resources can be effectively put into use.

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