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## Rethinking teacher training to support a lifelong learning journey



International  
Task Force on Teachers  
for Education 2030

## Main messages

- Many systems are shifting from professional development models that emphasise passive, one-off trainings to a lifelong learning approach that embraces collaboration in line with a new social contract for education (UNESCO, 2021. *Reimagining our futures together: a new social contract for education*).
- Lifelong learning initiatives can help address ongoing issues of relevance and access to development opportunities for teachers.
- To shift to a model of lifelong learning, systems need to incorporate all levels of stakeholders in planning and implementation efforts, including teachers, school leaders, head teachers, teacher education institutions, and ministries of education.
- Steps can include raising salaries, improving working conditions or training and certifying contract, volunteer and community teachers.
- Professional development can become more relevant if teachers have input into the design process and it is incentivised through links to career progression and salary increases.
- Delivery methods that involve active participation, mentoring, and establishing communities of practice can build collaboration and foster lifelong learning.
- Professional development tends to be more effective for improving teacher performance and motivation when held regularly over long periods of time.

## Transforming teacher training models: What is at stake?

Professional development requirements for teachers are nearly universal around the world, but many school systems have begun to rethink their approach to longstanding training models. Traditional methods often employ passive training techniques that simply require a stand-alone ‘check in the box’ for teachers to complete (Education Commission, 2019; Darling-Hammond et al., 2017; Boeskens et al., 2020). However, these types of time-bound, one-off trainings go against research on good practice for adult learning techniques, and rarely offer true professional growth opportunities for teachers (Naylor et al., 2019; Popova et al., 2021). In contrast, research evidence has emerged around the importance of collaborative, interactive trainings that occur throughout a teacher’s career in both formal and non-formal settings (Darling-Hammond et al., 2017; Education Commission, 2019; OECD, 2020). Reflecting these findings, UNESCO (2021b: 84) has called for a new social contract that casts teaching as a collaborative endeavour and teacher professional development as a ‘lifelong and life-entangled’ journey. This brief will explore some new approaches to content, delivery methods, and duration of teacher training, focusing on the types

### Box 1 – Teacher training terminology

**Pre-service training** — programmes that train future teachers at a specific level of education and where graduates receive a recognized teaching qualification.

**In-service training** — training concurrent to teaching responsibilities to improve qualifications or skills.

**Continuous professional development** — includes a wide range of ongoing activities that develop skills, knowledge, and expertise throughout a teacher’s career such as workshops, observation visits, formal seminars, etc.

**Continuous professional learning** — ongoing process of improving a teacher’s knowledge base or capacity for practice through active and contextualised training.

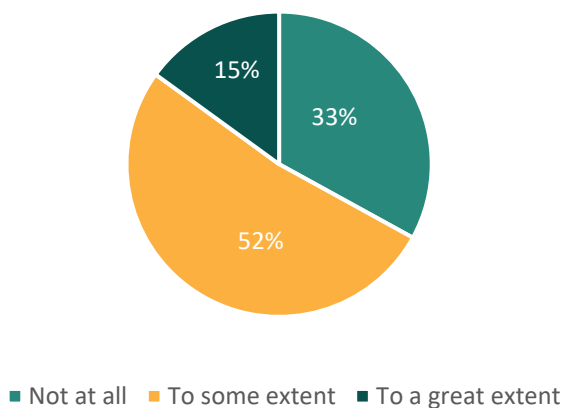
Sources: Boeskens et al., 2020; UIS,

of continuous professional development

opportunities that promote a lifelong learning journey for teachers.

To embrace the concept of lifelong learning, professional development needs to remain relevant throughout a teacher’s career. While pre-service training may seem purposeful with a definite goal, in-service training can sometimes feel ad hoc or detached from a teacher’s actual work and experiences. Reflecting this, teachers often report that they lack incentives and have no control over the type or quality of professional development offered to them (Burns and Darling-Hammond, 2014; OECD, 2020; Thompson, 2021). For example, in a survey of 100 teachers’ unions from countries around the world, only 15 per cent of respondents agreed to a great extent that teachers decide the form of continuous professional development (CPD) they receive, compared to 33 per cent which agreed teachers have no decision-making over this (Thompson, 2021; see Figure 1). This lack of input can then lead to training that does not properly meet the needs or experience level of a teacher. Teachers are therefore unlikely to gain any benefit from professional development in which they feel they are passive participants or that the trainings do not offer opportunities for growth (McAleavy et al., 2018; Darling-Hammond et al., 2017; OECD, 2020).

**Figure 1. Can teachers decide what form of CPD they receive?**



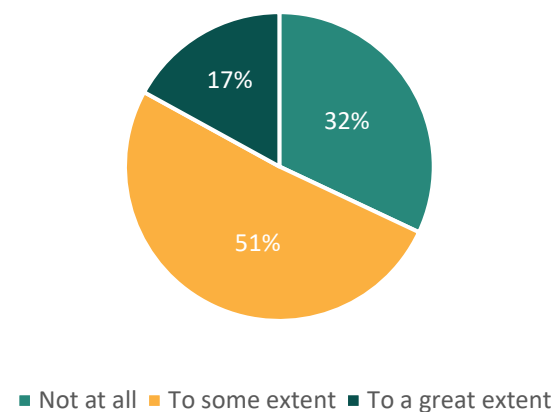
Notes: Survey responses taken from teachers’ unions from regions around the world, to include Africa, Asia-Pacific, Europe, Latin America, and North America and the Caribbean; n=100

Source: adapted from UIS, 2016: 3 and UNESCO and TTF, 2022: 6

The most cited challenges to developing quality training models for teachers are time and logistics. Teachers are busy with planning and preparatory work, administrative functions, or extracurricular activities in addition to actual instructional time. Without proper planning and designated times set aside for professional development, teachers often report they have little space in their schedules for training opportunities (Burns and Darling-Hammond, 2014; OECD, 2020; Thompson, 2021). For example, survey responses from teachers’ unions around the world showed that just 17 per cent of teachers agreed to a great extent there was working time allocated to them to participate in CPD, while 32 per cent felt there was no working time allocated (Thompson, 2021; see Figure 2). Some teachers can

also face a general lack of access to professional learning opportunities, due to prohibitive costs surrounding fees or travel expenses (OECD, 2020; Vuorikari, 2019; Boeskens et al., 2020). For example, UNESCO Institute for Statistics data from 2013 to 2019 revealed that on average 10 per cent of primary and lower secondary teachers in high- and middle-income countries reported having no access to in-service training in the previous 12 months. In Central and West Africa, primary teachers reported even less access with an average of 25 per cent not receiving in-service training over two years (PASEC, 2020). These challenges highlight the importance of weaving professional learning opportunities into the everyday schedules of busy teachers.

**Figure 2. Is there working time allocated for teachers to participate in CPD per year?**



Notes: Survey responses taken from teachers’ unions from regions around the world, to include Africa, Asia-Pacific, Europe, Latin America, and North America and the Caribbean; n=100

Source: Adapted from Thompson, 2021: 72

## Why is it important to promote the lifelong learning of teachers?

Professional development provides a vital opportunity for teachers to improve their classroom practice and raise their overall level of professionalism. This can have important benefits for both student learning outcomes and teachers’ own well-being and motivation. Without ongoing professional learning opportunities throughout their careers, teachers may miss important chances for growth and improvement.

While teachers may receive the most direct benefits, instituting a quality professional development model can also affect students. Research has shown that effective professional development programmes can have meaningful impacts on student learning outcomes (Fletcher-Wood and Zuccollo, 2020; Hill et al., 2021; OECD, 2020; Darling-Hammond et al., 2017). One review of 42 randomised

controlled trials targeting professional development found that effective programmes are more successful at raising student learning outcomes than other school-based interventions such as performance-based pay for teachers or lengthening the school day (Fletcher-Wood and Zuccollo, 2020). By developing consistent and effective professional development programmes for teachers throughout their careers, systems can potentially have a direct impact on improving student performance.

Lifelong professional learning can also foster a teacher's motivation and well-being (Boeskens et al., 2020; Hill et al., 2021; Education Commission, 2019). Studies have found that teachers participating in regular sessions of collaborative professional development have higher levels of job satisfaction, professionalism, and self-efficacy (Crehan, 2016; Hill et al., 2021; Boeskens et al., 2021). By developing collaborative working environments that promote professional learning, schools can both enhance the culture of professionalism in teachers while also sharing good practices (TTF and UNESCO, 2019; Darling-Hammond et al., 2017). In the longer term, developing an enhanced professional atmosphere of collaboration and lifelong learning can contribute to enhanced rates of attracting and retaining teachers (See International Task Force on Teachers for Education 2030, 2023).

## What can be done? Strategies from countries around the world

While no single professional learning strategy proves universally effective, some consensus is building globally around general attributes of quality teacher professional development. In-service teacher training models in high-performing systems tend to promote collaboration, focus on content, utilise adult learning techniques, deliver expert support, and provide ongoing monitoring of professional learning opportunities. Moreover, high quality professional development tends to occur with regularity and is easily accessible to teachers, with opportunities inside of schools themselves (Darling-Hammond et al., 2017; OECD, 2020; Boeskens et al., 2020; Hill et al., 2021; Popova et al., 2021). The question then becomes: how can systems implement effective programming that reflects these attributes and turn their teachers into lifelong learners? The following sections explore some policy ideas from around the world.

### **Developing multi-tiered systems of support for lifelong learning**

A single teacher, principal, or school cannot take on the planning and implementation of comprehensive teacher development on their own. Instead they need support from a variety of sources throughout an education system. By including stakeholders from all education levels through distributed responsibilities, planners and policy-makers can better develop a culture and training model that promotes lifelong professional learning in their teachers. Beyond formal systems, teachers can also be empowered to participate in lifelong learning opportunities provided in non-formal and informal settings, including museums, libraries, community centres, and other alternative learning spaces.

### **Teacher education Institutions**

While largely involving CPD opportunities, a lifelong learning mindset needs to be emphasized from the very start of a teacher's pre-service training. To better impart the skills for ongoing professional growth in pre-service teaching candidates, initial teacher education should include the development of skills such as teamwork or using and generating evidence (UNESCO, 2021b; Naylor et al., 2019), carrying out and systematizing research at classroom level and a capacity for self-directed learning, self-awareness and reflection. Additionally, teacher training institutes should partner and collaborate with schools to best provide practical and relevant training to aspiring teachers (UNESCO, 2021b). For example, Ghana initiated a programme in 2014 called Transforming Teacher Education and Learning (T-TEL) that supports all Colleges of Education in the country to develop stronger partnerships with schools and develop practical instruction to trainees. Reviews of the programme found high levels of success in building these partnerships, and it improved the proportion of new teachers showing core competence in professional development and management<sup>i</sup> from 1.6 to 31.8 per cent over three school years (Naylor et al., 2019; T-TEL, 2018).

### **Principals and school leaders**

Principals can play an important role to guide and emphasize ongoing professional learning at the school level (Boeskens et al., 2020; McAleavy et al., 2018). School leaders can encourage teachers' commitment to professional learning and incorporate it into their overall school improvement plans (Jensen et al., 2016). Without buy-in from school leaders in terms of time and resources, effective lifelong learning models have little chance of becoming established. For example, New Zealand developed a programme called Communities of Learning, which grouped schools together to encourage the spreading of best practices and collaborative enquiry. Evaluation results highlighted some successes in this programme with regards to building collaborative networks and exchanging best practices, but mainly in groupings that had strong leadership (OECD, 2020; New Zealand MoE, 2017).

While promoting opportunities for teachers, principals should also continue their own pathway to lifelong learning by participating in their own professional development (Education Commission, 2019). This can both help their growth as leaders while also better preparing them to encourage and develop teachers in their schools. For example,

### **Box 2 – Leaders of Learning: Supporting head teachers’ professional development in Rwanda**

Rwanda established a new role for high-performing head teachers in 2017 called Leaders of Learning. These Leaders of Learning who remain practicing head teachers- take courses to continue their own professional growth and gain the skills necessary to facilitate leading others. They then establish professional learning communities (PLCs) and provide peer support to other school heads. Support can come in the form of improving collaborative professional practices among peers, sharing strategies for improving teaching and learning outcomes, or providing one-on-one coaching for other head teachers. After meeting in the PLCs, all head teachers then return to their own schools and role-model collaborative professional learning practices for their teachers.

Initial evaluations of the programme have largely been positive, with participants reporting increased levels of collaboration and teamwork both within and across schools. One metric that tracks head teacher competency across four areas showed 41 per cent of head teachers achieving competency standards in 2018 increasing to 66 per cent in 2020. Overall, the Leaders of Learning programme has brought higher levels of collaboration and informal professional learning into daily life at the school level.

*Source: Page et al., 2023*

Rwanda has trained high performing head teachers to become ‘Leaders of Learning’, who offer professional development support to other head teachers in neighbouring schools (See box 2). While providing ongoing professional learning for head

teachers, collaborative practices and lessons learned are also filtering down to teachers at the school level (Page et al., 2023).

### **Ministries of education and middle levels of education systems**

Central planners and policy-makers at ministries of education can set the tone for an entire system with

regards to improved professional learning opportunities for teachers. By establishing clear guidelines and committing to offer quality professional development, ministries can provide strategic direction that promotes lifelong learning (Jensen et al., 2016; Darling-Hammond et al., 2017; Boeskens et al., 2020; OECD, 2020). For instance, officials in Shanghai have made a strong commitment to ongoing professional development in their system since the 1980s. Planners have established a large variety of supportive roles for professional growth and school-based research, to include positions such as mentors and research specialists. These specialists then work with teachers at the school level to both facilitate the implementation of new policies and curricula as well as provide feedback to improve practice (Jensen et al., 2016; Chen and Zhang, 2023).

Leaders at the middle levels of education systems—usually district or regional levels—can provide expert practitioners and specialists to help support professional learning opportunities. Research has found that this supportive element proves highly important to effective professional learning practices (Tournier et al., 2023; Hill et al., 2021; Darling-Hammond et al., 2017). Recent initiatives in Jordan and Colombia have shifted the role of expert practitioners from one of oversight to one of support. Evaluations have found this new role enhanced collaboration among teachers and encouraged ongoing innovation and professional growth (Churches et al., 2023; Colbert and Arboleda, 2016).

### **NGOs or international organizations**

If countries lack the expertise or financing to provide quality professional learning opportunities, they may turn to non-governmental organizations (NGOs) or international organizations for support, at least in the initial stages of implementation. However, the country or system itself should remain involved with a goal of fully taking over any programming (Tournier et al., 2023). In Delhi, education officials partnered with the NGO STiR Education to train and support newly established positions called Mentor Teachers and Teacher Development Coordinators. Practicing teachers filled these new roles and then worked in schools to provide mentoring and support for their fellow teachers. In this partnership, Delhi owned and funded the programme and STiR Education provided initial support and expertise, but as the programme progressed government officials took on the bulk of planning and training functions.

### **Remaining relevant: Designing professional learning for teachers at all stages of their career**

Teachers in different subject areas or at different stages of their career may require very different professional development options. For this reason, planners and policy-makers need to consider how best to ensure that CPD opportunities keep teachers

engaged and remain relevant to their individual needs.

### **Understanding teachers' needs and aspirations on the ground**

One of the most direct ways of keeping professional learning opportunities relevant involves seeking and applying inputs from the teachers themselves. By increasing and integrating a teacher's sense of agency into the design and decision-making process, leaders can improve motivation and ensure the creation of more practical professional development (UNESCO and TTF, 2022; UNESCO, 2021b; European Training Foundation, 2020;). To do this, a variety of methods are available to conduct needs assessments, including options such as staff surveys or teacher observation tools (Darling-Hammond et al., 2017; Jensen et al., 2016; OECD, 2020; Vuorikari, 2019). In Italy, an initiative has sought input from vocational education teachers to design and implement a completely new professional development programme. This new model aims to better develop the competencies that the teachers felt most important (European Training Foundation, 2020). With this type of direct input to designing trainings, teachers can shape professional learning opportunities with high practical implications.

Along similar lines, developing training that relates to the established curriculum or a teacher's specific subject matter can improve relevancy and effectiveness of training (Popova et al., 2021; TTF and UNESCO, 2019; Hill et al., 2021). Instead of broad or generic techniques, teachers can learn specific skills and strategies they can directly translate to classroom practice. Tellingly, a review of 139 professional development initiatives found that programmes with a subject focus showed improved student learning outcomes compared to programmes with a more general focus (Popova et al., 2021).

### **Relating continuing professional development to teacher career progression**

Effective teacher professional development does not have a 'one size fits all' solution. Instead, trainings need to adapt to teachers' needs. At the start of a career, this could be an induction or mentoring programme that gives young teachers extra professional learning opportunities and acts as a bridge between initial teacher training and continuing professional development (OECD, 2019; TTF and UNESCO, 2019). Chile illustrates this type of focus, as the government passed legislation in 2016 that strengthened the induction process for novice teachers. The new regulations and recent programmes allot more time for mentorship and professional development in the early phases of a teacher's career to support their progression (Naylor et al., 2019).

As teachers advance in their careers, linking ongoing professional development opportunities to incentives such as promotion or salary increases can help promote the relevancy of CPD (UNESCO, 2021b; TTF and UNESCO, 2019; Education

Commission, 2019). For example, Ecuador has adopted requirements for professional development that teachers must complete before applying for promotion. These requirements shift depending on the experience of the teachers, progressing from basic trainings to courses on mentorship and management to working on research and publishing findings from their experience in the field (Chiriboga Montalvo and Pinto Haro, 2019; Tournier and Chimier, 2019). By requiring teachers to continuously improve their skills or competencies to progress along a career path, systems can better incentivize professional learning to remain relevant for teachers (Popova et al., 2021; Tournier and Chimier, 2019; Jensen et al., 2016; Education Commission, 2019).

Micro-credentialing offers another innovative way that systems can improve the relevance of professional development for teachers. It allows teachers to learn new skills, gain feedback from evaluation, develop mastery of a new subject, and earn professional recognition. Each micro-credential typically addresses a fine-grained, discrete set of educational practices (Demonte, 2017). High-quality micro-credentialing can allow agency for teachers to personalise their learning pathways while providing updated research and evidence about the impacts of the selected topic (Tooley and Hood, 2021). While large scale quantitative evaluations remain sparse, participating teachers have provided positive feedback about micro-credentialing in the United States (Demonte, 2017; Acree, 2016). An evaluation of participating teachers found that they directly applied learned skills to classroom practice and 97 per cent of participants wanted to earn additional micro-credentials (Acree, 2016). While not specifically created for teachers, an online tool has been recently developed by the European Union that issues standardised and digitally signed credentials for both formal and non-formal programmes (European Commission, 2021). This type of tool can help recognize qualifications and acquired skills across different education systems or even different countries.

### **Developing professional learning cycles**

For any professional learning and training, there needs to be some form of monitoring, evaluation, and ongoing planning based on the results of current outcomes (Boeskens et al., 2020; OECD, 2020; Education Commission, 2019; Hill et al., 2021). In this way, systems can keep student learning outcomes at the forefront when considering how to approach teacher professional learning. For example, teacher coaches in Kenya received tablets with pre-loaded software which enabled them to easily conduct standardised classroom observations and better provide feedback. These data, combined with randomly selected student fluency rates, allow coaches to update their training focus and tailor professional learning directly to a teacher's needs (McAleavy et al., 2018). By developing this type of ongoing learning cycle that is constantly updated based on outcomes, systems can keep professional

development fresh and relevant throughout a teacher's career.

### **Delivery methods that support the development of communities of practice**

Systems around the world have developed new techniques and delivery methods to better support teachers' enhanced collaboration and lifelong learning. Collectively, practices have shifted from passive, top-down, one-off sessions to more interactive, bottom-up, school-based, and ongoing trainings. The latter have not only proven to be most effective when it comes to teacher professional development, but they also increase opportunities for teachers to engage in professional learning that fits into their busy schedules.

#### **Utilising adult learning techniques and active participation**

One method to shift professional learning from a passive activity to a more active one revolves around utilising insight into adult learning techniques. Research has shown that adults learn best from active participation and seeking goals that will improve their performance rather than passively reading or listening to others' work or observations (Knowles, 1973; TTF and UNESCO, 2019; Naylor et al., 2019). Translated to teacher professional development, this type of active

#### **Box 3 – Classroom observation and coaching in Brazil's Ceará state**

In 2015, the state of Ceará in Brazil instituted a programme that increased performance feedback for teachers by providing improved classroom observations and expert coaching. To do this, an outside team of experts provided training for each school's pedagogical coordinator, who performed the individual classroom observations on teachers. The coordinators received support in face-to-face workshops and individual coaching sessions via Skype to improve their practice of providing specific feedback. Pedagogical coordinators and teachers also posted videos of good practice – both classroom instruction and providing feedback about observations – to share with others.

A randomised control trial (Ceará agreed to implement the programme in half its schools in the first year) showed promising results. For teachers, data analysis showed increased time on instruction and student engagement from previous years. Student learning outcomes also increased, with statistically significant results of increases on state and national tests compared to control schools.

Source: Bruns et al. 2017

training can best be achieved through workshops, role modelling, or mentoring sessions, especially in the school itself. For example, a programme in the Brazilian state of Ceará provided benchmarked feedback and expert coaching to improve teacher performance. Teachers responded well throughout the programme with significant gains in student learning performance (see Box 3) (Bruns et al., 2017). By embedding this type of less formal, in-school professional development on a regular basis, systems can help establish a culture of lifelong learning by making it a normal part of teachers' routines.

#### **Developing peer networks and communities of practice**

Shifting away from the idea of more structured or lecture-based professional development, teachers can enhance informal professional learning opportunities by developing communities of practice, which are peer networks that share knowledge with each other through regular interaction (Wenger, 1998). In this way, teachers of all experience levels can support each other by sharing techniques and strategies that have worked in their classrooms or offering mentorship and coaching to others (Van den Brande and Zuccollo, 2021; UNESCO and TTF, 2022; TTF and UNESCO, 2019). For instance, Singapore includes all schools and teachers in learning communities, with professional learning teams designated by subject, grade level, or interest. Team members work together to select a key issue they want to address, collect and analyse data, propose new approaches, and then trial them and assess their impact (Jensen et al., 2016). This system embeds professional development into the daily lives of teachers and establishes an ongoing process of professional research and practical application of data in schools.

Developing blended learning systems that combine in-person and online collaboration offers additional promising opportunities for expanding communities of practice (Cilliers et al., 2021; McAleavy et al., 2018; Education Commission, 2019). For example, an online teacher network in Lithuania called iKlasė has grown from a single blog entry to more than 2,400 members in its first 10 years of existence. Members share pertinent information about professional learning needs and programmes, as well as expanding to offering informal workshops and seminars (Vuorikari, 2019). The eTwinning platform in the European Union offers online professional learning opportunities such as courses and events but it also facilitates face-to-face meetings both nationally and internationally (Vuorikari, 2019). Developing communities of practice online or in local settings can allow expanded access to professional learning opportunities for teachers due to little or no travel needed, no personal expense, and flexible scheduling.

#### **Creating online hubs for professional learning**

To improve ease of access for teachers, some systems have created extensive online portals for professional learning opportunities. These hubs of information can provide professional development materials, present training opportunities, or create opportunities for connection through discussion forums (McAleavy et al., 2018; Vuorikari, 2019; OECD, 2020). Importantly, this type of multi-functional

#### Box 4 – Sub-Saharan Africa’s TESSA network

Beginning in 2005, a network of African universities partnered with the United Kingdom’s Open University to create the Teacher Education in Sub-Saharan Africa (TESSA) network. The project aims to support the professional development of teachers by creating a multilingual, collaborative network that provides open education resources (OER). All materials are free to access and designed in a way that makes them easily adaptable across different languages and cultures.

An evaluation on the impacts of the programme found that TESSA had largely achieved its goals. Nearly 300,000 participants had utilised the network by 2012, and researchers found that it aided in the development of communities of practice among teachers. Enhanced collaboration has also occurred, sometimes for the first time, between faculties of universities and schools. In this way, TESSA has facilitated a large-scale and low-cost solution to provide professional development materials to teachers in diverse settings.

*Source: McAleavy et al., 2018; Harley and Barasa, 2012*

resource allows teachers to engage in professional learning when their schedules allow. For example,

the Teacher Task Force recently launched the [Teacher Resource Centre](#), which provides a single access point to teacher resources, including lesson plans, curriculum development guides, teacher training opportunities and the latest research on pedagogies. UNESCO meanwhile launched its [Global Teacher Campus](#) (GTC), which is a flagship programme of UNESCO’s Global Education Coalition that seeks to provide teachers and educators with opportunities to improve their pedagogical knowledge and practice through a wide selection of upskilling courses. Similarly, a network of universities in sub-Saharan Africa developed the TESSA network (see Box 4), which provides supportive materials for teachers to develop school-based professional development (McAleavy et al., 2018). Teachers in Iceland have developed an online collaboration model called Education Plaza that helps connect teachers in rural and sparsely populated areas (Vuorikari, 2019).

Massive Open Online Courses (MOOCs) offer yet another innovative strategy that some systems are offering to increase access to professional learning for their teachers. These online trainings typically have no maximum number of participants and can provide increased opportunities for training, especially for teachers in low-income or extremely rural settings (McAleavy et al., 2018; Vuorikari, 2019). The Spanish Ministry of Education has heavily utilised MOOCs since 2014, and programme evaluation found them particularly useful for teachers who lack time in their schedules for more formal training, who do not receive school support for other development opportunities, or who lack prerequisites to get into more formal trainings (Vuorikari, 2019; Castaño-Munoz et al., 2018).

While online resources and collaboration show great potential in supplementing teacher lifelong learning, research shows they do not suffice on their own (Cilliers et al., 2021; McAleavy et al., 2018). One study from South Africa compared the impacts of both in-person and virtual coaching, finding that in-person coaching had a higher impact on English language oral proficiency in students (Cilliers et al., 2021). Analysis showed that the technology itself did not hurt the implementation process, but that in-person coaching led to higher levels of accountability and support (Cilliers et al., 2021). Systems then should seek the proper balance of virtual and in-person opportunities to best meet the needs of schedules and budgets.

#### Personalising teacher learning with AI

Emerging technologies may offer even more advanced ways for teachers to pursue professional growth and lifelong learning in the future. Artificial intelligence (AI), a technology that allows machines to analyse data and make informed decisions or perform tasks usually done by humans, offers a particularly intriguing tool for personalising teacher learning (Makala et al., 2021). Some online learning providers are already using AI to better optimise their course content and access to training material (Makala et al., 2021). An experimental study in Germany found that adaptive AI feedback could help pre-service teachers’ diagnostic reasoning when working with simulated students with learning difficulties (Sailer et al., 2022).

While these technologies are not yet ready for wide scale practical implementation, AI offers some exciting possibilities for tailoring lifelong learning opportunities moving forward. For example, teachers could video-record lessons and have AI offer feedback with potential areas for growth and development. This could then let teachers pursue learning opportunities that directly target their personalised needs. In systems that lack the resources to offer in-person mentorship or coaching to teachers, this could have enormous impact for growth and development opportunities (World Bank, 2022). In a less direct manner, AI could also allow teachers more time to incorporate professional learning in their everyday schedules by helping with administrative tasks (UNESCO, 2021a;



Bryant et al., 2020; Makala et al., 2021; Roschelle et al., 2021). No matter the application, education leaders and policy-makers should stay abreast of emerging technology and how it can enhance lifelong learning opportunities for teachers.

More recently, generative forms of AI such as ChatGPT have challenged education policy-makers to respond. Given that teachers lack familiarity with these quickly evolving AI tools, UNESCO is also developing policy guidelines on the use of generative AI in education and research, as well as frameworks of AI competencies for students and teachers in classrooms (Giannini, S., 2023).

### **Embedding lifelong learning into teachers' schedules**

To develop lifelong learning practices, professional development should become a routine part of teachers' schedules. This means that planners and school leaders need to integrate established time for professional learning into schedules on a regular basis, and ensure spaces for collaboration and exchange inside schools and teacher development institutions. Largely, this model shifts away from traditional methods of conducting one-off, longer trainings to shorter, more frequent sessions.

#### **Frequency of training opportunities**

Consistent, ongoing opportunities for professional growth lie at the heart of a lifelong learning model. In conjunction with this idea, research has found that effective professional development strategies allocate time on a weekly or even daily basis for ongoing learning opportunities (OECD, 2020; TTF and UNESCO, 2019; Darling-Hammond et al., 2017). In the province of British Columbia in Canada, for example, teachers are given one to two periods every week for professional learning. This occurs even though teachers average 23 hours of instructional time per week, higher than many other systems with high frequencies of professional development (Jensen et al., 2016). Similarly, Rwanda's Ministry of Education has allocated three periods per week in school timetables for continuous professional development (Rwanda MINEDUC, 2021). By participating in learning opportunities at such high frequencies, teachers get into habits and establish professional growth as a part of their normal routines. This model lies in stark contrast to simply checking a box or fulfilling professional development requirements at the end of an evaluation cycle.

#### **Duration of professional learning sessions**

Shorter and more interactive trainings over a sustained duration offer a more effective model versus longer, one-off seminars or lectures. Specific training programmes could last weeks, months, or an entire year (Darling-Hammond et al., 2017; Boeskens et al., 2020; Popova et al., 2021). This can often take the form of an initial longer training or workshop with multiple follow-up sessions, which provides opportunities for reflection and feedback

and incorporates a professional learning cycle. One example comes from Flemish Belgium, where a professional training course called Mediacoach trains teachers in digital education so they can become expert coaches in their own schools. To make it more accessible, the course stretches out over a year, with a mix of online, in-person, and in-school training (Vuorikari, 2019). Making the training highly flexible over a longer period improves accessibility and potentially allows higher numbers of teachers to participate.

## **Policy implications**

No single policy or professional development programme will turn a system's teachers into lifelong learners. Instead, planners and policy-makers need to think broadly about how to develop a culture of professional growth where teachers have access to quality professional development opportunities on a regular basis that remain relevant throughout their careers. The following can help build toward this goal.

Policy implications for who to involve in continuous professional learning:

- Develop partnerships and open lines of communication between initial teacher training institutes and schools, and other settings, to build appropriate, practical skillsets in new teachers.
- Offer school leaders their own professional development opportunities and encourage them to emphasize professional learning in school plans.
- Codify lifelong learning initiatives into all teacher policies and standards coming from central levels of education systems.
- Utilise middle tier officials to facilitate professional development opportunities, especially by providing expert practitioners to offer support to teachers.
- Partner with NGOs or other international organizations as needed for support and expertise to get professional learning programming started.

Policy implications for keeping the content of professional development relevant to teachers:

- Incorporate teacher inputs, needs and aspirations into the design phase of professional development opportunities.
- Design professional learning with a focus on curricula and content areas to make it more relevant for teachers.
- Incentivise professional development by including it in career progression models.
- Conduct ongoing monitoring and evaluation of programming to ensure

positive impacts and create a professional learning cycle.

Policy implications for new delivery modes of professional learning opportunities:

- Utilise adult learning didactics, such as role modelling and mentoring, and life-wide learning spaces when designing professional development opportunities.
- Provide forums (both in-person and online) that promote collaboration and communities of practice.
- Build a system-wide professional learning hub as a central database for pertinent materials and resources.
- Investigate potential uses of AI to personalise and adapt development opportunities.

Policy implications for the frequency and duration of trainings that are compatible with teachers' schedules:

- Embed professional development into the schedules of teachers on a regular basis. This can include both formal sessions and time for non-formal collaboration among colleagues.
- Create programming that includes follow-up trainings for a sustained duration instead of one-off courses.

## Further reading

- [1] International Task Force on Teachers for Education 2030 and UNESCO. 2019. *Teacher Policy Development Guide*. Paris: TTF and UNESCO.  
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<sup>i</sup> Results based on teacher observations to determine if meeting professional standards and becoming reflective and proficient practitioners (T-TEL, 2018).

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For more information, see:

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