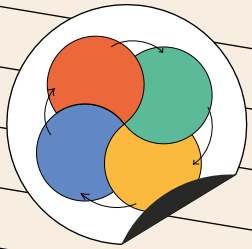
BLEND ON!

A guide on how to blend **in-person & remote learning** for professional development of educators



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Looking for real-life examples of blended continuous professional development? Discover our work in practice.

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EVALUATE

First edition, April 2023.

Designed by Josworld

INTRODUCTION

ABOUT THIS GUIDE

WHY WE DEVELOPED THIS GUIDE

The Covid-19 pandemic and resulting restrictive measures of social distancing and lockdowns in educational institutions caused an exponential expansion and exploration of different remote models of education. Although the pandemic has been a catalyst for speeding up the rate at which technology is being adopted in education, the speed and abruptness of the shock meant that many in-person programmes had to shift practically overnight to online delivery, leaving little time for thoughtful re-design. As the threat of Covid-19 subsides, some providers are returning to traditional in-person forms of continuous professional development (CPD) or deciding to continue with fully remote (often online) CPD.

The decision to return to fully in-person CPD or to maintain remote CPD depends on the specific circumstances. For example, in-person CPD can be preferable when participants can easily come together and when the focus of the CPD is on acquiring practical skills. Fully remote CPD can be perfectly fine when it is difficult to bring all participants together, when participants have experience with learning remotely, or when the focus of the CPD is on transferring knowledge.

However, in many instances, blended CPD can offer a higher quality of CPD by combining the benefits of in-person and remote CPD. With this guide, we want to help CPD providers find just the right blend, where participants are motivated and engaged and that includes all participants in a way that is cost-effective, scalable and sustainable.

The guide is intended to inspire CPD providers and help them successfully organise a blended CPD trajectory.

The guide does not:

- Focus on the development of CPD content
- Offer ready-made design instructions for CPD
- Help you select software or tools for blended CPD programmes such as LMS, authoring software or video editing tools, although we will provide some tips for tools and software that we find useful
- Help you to develop software skills (authoring software, LMS)
- Focus on the development of in-person or completely remote (online) CPD

WHO THIS GUIDE IS FOR

The guide is for CPD providers in low- and middle-income countries (LMICs) who wish to re-design their CPD programmes from an in-person or remote modality to a blended modality, or who wish to develop new blended CPD programmes tailored to the needs of their context and participants.

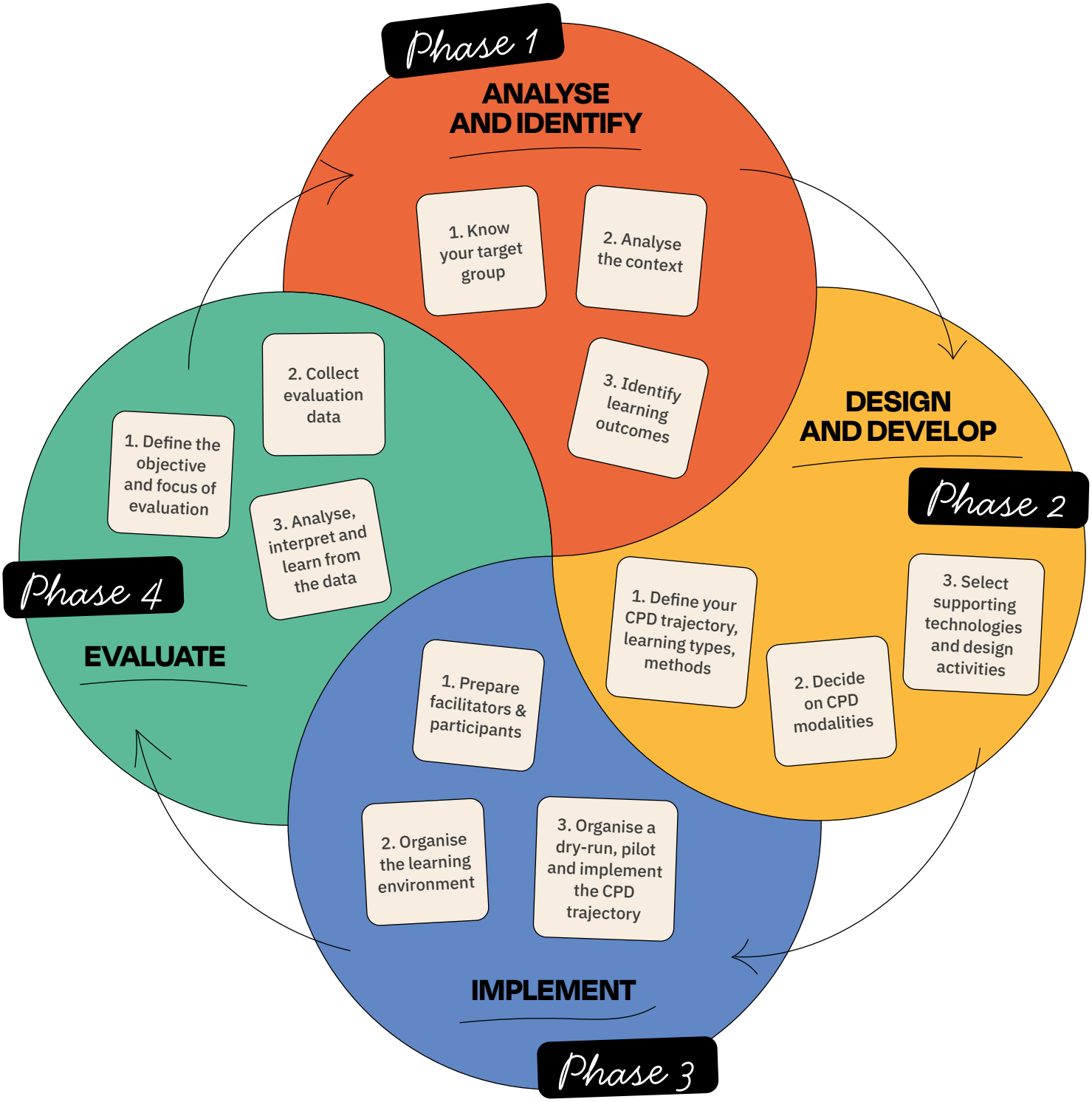


Figure 1: Structure of the Guide

HOW WE STRUCTURED THE GUIDE

This guide provides a practical step-by-step framework that helps CPD providers to create and implement high quality blended CPD. The guide is structured in such a way as to allow a provider to organise CPD, by going through the following phases:

1. Analyse the context and identify the CPD needs and outcomes
2. Design and develop a CPD trajectory
3. Implement the blended CPD trajectory
4. Evaluate the blended CPD trajectory

Figure 1 shows the structure of the guide. We have identified four main phases, each sub-divided into three steps.

For each phase and step, we share **information** on the aspects of blended CPD, practical **exercises**, **tools** such as checklists, reflection questions and surveys. **Case studies** illustrate the experiences of various organisations with blended CPD. Special attention is given in the case studies to blended CPDs on play-based learning. Throughout the guide, we point to important cross-cutting themes when developing and implementing blended CPD, such as gender, diversity & inclusion, motivation & engagement, cost-effectiveness, sustainability and scalability.

HOW WE DEVELOPED THE GUIDE

This guide is the outcome of a co-creation process with eight organisations that support government partners and CPD providers in the organisation of CPD. Staff members of these organisations engaged in a professional learning community. Input, collaboration, piloting and feedback led to the development of the guide. These partners are (in alphabetic order) Aga Khan Foundation, BRAC IED, Plan International, Pratham, Right to Play, STiR Education, VSO and VVOB – *education for development*.

The guide is built on three sources of information:

- ***Review of recent existing guides and good practices***: to obtain a summary of research evidence and insights into knowledge gaps.
- ***Review of case studies on blended CPD by partners***: all partners submitted an overview of blended CPD activities they had implemented, focusing on the application of technology, the learning experience and lessons learned.
- ***Professional Learning Community (PLC) sessions***: during these sessions, partners reflected on their blended CPD trajectories. The PLCs were facilitated by Beyond Borders.

The authors also are grateful for the feedback received from Mary Burns, Tom Kaye (EdTech Hub), Saalim Koomar (EdTech Hub), Elaine Ding (World Bank), Tracy Wilichowski (World Bank) and Brad Olsen (Center for Universal Education, The Brookings Institution). Their feedback greatly contributed to the quality of the final product.

BLENDED CPD

WHAT WE MEAN BY CPD AND BLENDED CPD TRAJECTORY

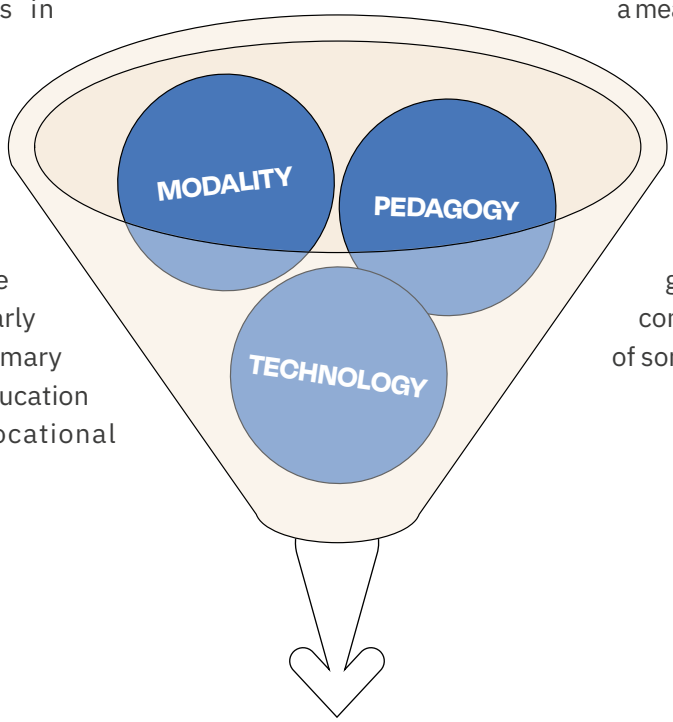
We understand CPD as a trajectory that unfolds over a considerable period of time, covering a range of development opportunities, learning activities, both formal and informal, designed to address educators' development needs and improve their professional practice, resulting ultimately in improved learning outcomes.[i] A CPD trajectory consists of a series of interconnected CPD activities offered through a variety of CPD methods (pedagogy), in different technology-supported modalities. Examples of such methods are a training course, a coaching conversation, a lesson observation with feedback discussion, a field visit, and a workshop. Examples of CPD trajectories are accredited diploma programmes, a series of training sessions, a mentoring trajectory and a community of practice.

Many teachers in low- and middle-income countries lack the skills to teach effectively, and CPD is the main tool that governments use to upgrade those skills. CPD includes all formal and informal learning that enables educators to improve their practice. Over the course of their professional career, educators continuously engage in learning as their learning needs evolve. This starts with initial teacher training (pre-service training), continues with induction (apprentice) and evolves in becoming a professional and expert through experience, reflection on one's practice and CPD.

Blended CPD is a combination of in-person and remote CPD. Remote can mean online or offline (e.g. SMS-based learning, phone calls, paper worksheets). Each component should constitute a meaningful part of the blended CPD trajectory.

We refer to educators in the broad sense, including teachers, school leaders, parents and local community members, government officials and experts at various subsectors in the education system, i.e. Early Childhood Education, Primary Education, Secondary Education and Technical and Vocational Education and Training.

We have included a glossary with terms related to blended CPD at the end of the guide. Note that there is no consensus on the definitions of some of these terms.



BLENDED CPD TRAJECTORY

WHAT WE MEAN BY EFFECTIVE CPD

A CPD trajectory is effective when it leads to sustainable changes in teachers' knowledge, skills or attitudes, leading to a change in teaching practices, which results in improved learning outcomes[ii]. A common measure of teacher effectiveness is changes in learning outcomes, but other measures are improvements in learners' socio-emotional well-being or reduced drop-out rates.

Various authors have published research on the characteristics of effective CPD. Recurring characteristics of effective CPD for teachers are needs-based, goal-oriented, job-embedded, content focused, coherent, collaborative, active, play-based, continuous and with regular opportunities for reflection[iii]. Criteria for effective CPD are summarised in the *Coach principles, developed by the World Bank*[1]. To highlight the continuous nature of effective CPD, we use the term "CPD trajectory" in this guide.

Effective blended CPD requires an appropriate blend of in-person and remote CPD activities, optimising the strengths and minimising the limitations of each.

Some considerations on the effectiveness of blended CPD:

- Attrition rates associated with remote CPD are often higher than for in-person CPD. You may therefore need to include attrition rates in your effectiveness measure.
- Attendance isn't necessarily the same as participation. And participation doesn't always mean changed practices. Measuring the effects of the CPD trajectory over time is important.
- Blended CPD may have secondary benefits: improved digital skills of facilitators and participants, more efficient administration, better data collection, higher flexibility, less paper usage, lower transport and accommodation costs, etc.

WHY WE FOCUS ON BLENDED CPD

Blended learning has been described as 'the best of two worlds'[iv] [v]. Blending in-person and remote learning does not mean simply combining the two or laying one on top of the other, but rather integrating the two by maximising the advantages of each modality (e.g. gaining knowledge remotely and practising skills in-person).

Blended CPD has many **potential benefits**. By potential, we mean that each benefit is not automatically valid, but depends on the quality of the design and implementation of the CPD. At the same time, it is important to keep **common pitfalls in mind**, because avoiding them will lead to a higher quality CPD. Benefits and pitfalls link to recurring themes in this guide: gender, diversity and inclusion, effectiveness and cost effectiveness and motivation. Throughout the guide, we will refer to these pitfalls and provide advice on how to avoid them. When it is impossible to avoid these pitfalls, you should consider designing a fully remote or in-person CPD trajectory. Table 1 lists the potential benefits and pitfalls of blended CPD[vi].

1 Coach is the World Bank's global initiative focused on helping countries improve in-service teacher professional development (TPD) programmes and systems to accelerate learning. See: https://www.worldbank.org/en/topic/teachers/brief/coach-helping-countries-accelerate-learning-by-improving-in-service-teacher-professional-development

POTENTIAL BENEFITS	CROSS-CUTTING THEME	POTENTIAL PITFALLS
Blended CPD may make it easier to access underserved and hard-to-reach participants. Participants who find it difficult to travel might prefer partially remote delivery to in-person delivery. Conversely, in-person sessions can help participants to gain the confidence and digital literacy skills to engage in the remote delivery part.	Gender, Diversity & Inclusion	Blended CPD may benefit those with the best access and skills the most, thereby increasing digital inequities. Inequities may be based on age, gender, profession, or location. Access challenges may relate to the cost or intermittent availability of electricity and internet, household patterns or digital skills. The in-person component, and the related need for travel, may form a barrier for some participants.
Based on our experience, many educators enjoy taking part in blended CPD, as it combines the excitement of working and learning with technology with the joy of social interaction.	Motivation & Engagement	High engagement with digital resources might be due to a 'novelty' effect. CPD designers need to ensure that engagement does not decrease when this effect wears off. Being confronted with technical difficulties during their CPD can be demotivating for participants. Long CPD trajectories increase the risk of disengagement and drop-out. Therefore, providers need to ensure participants stay motivated. Sound instructional design of the CPD and strong skills of facilitators are required to address this challenge.
Blended CPD offers more opportunities to integrate external knowledge, learning objects, partners and experts in the CPD trajectory.	Motivation & Engagement	There is a risk of underestimating the importance of social interaction and focusing too much on content delivery.
Blended CPD may allow for flexible learning, as CPD participants can engage in the remote part of the CPD where and when they want to. Also, the content of the remote part can be better tailored to individual learning needs. This can lead to higher engagement and motivation of participants.	Motivation & Engagement	Participants in blended CPD may express reluctancy and/or resistance to learn and engage remotely due to prejudice. If left unaddressed, this may result in higher drop-out rates in blended CPDs compared to in-person CPDs.

Blended CPD can be more resilient than in-person or remote CPD. Resilient CPD means that it is easier to adapt delivery when confronted with unforeseen events, when you can switch to more or fully in-person or remote delivery.	**Effectiveness**	The in-person and remote components in a blended CPD trajectory have different pedagogies and require different designs and skills from facilitators and participants. Participants and facilitators need to be able to switch between roles and expectations throughout the trajectory. Therefore, the design and implementation of blended CPD "needs thoughtfulness in the way in-person and remote learning are combined" [vii].
Through participation in blended CPD, participants may acquire digital skills in addition to the learning outcomes of the CPD (e.g. uploading and downloading documents, creating and sharing a short video, etc.).	**Effectiveness**	There is a risk of overestimating digital, self-regulation and planning skills of facilitators and participants. Digital literacy skills and the objectives of the CPD are usually two different sets of skills that should not be conflated. In other words, low digital literacy skills should not prevent participants from achieving the objectives of the CPD.
Blended CPD provides more potential for scalable CPD solutions than fully in-person CPD. Reduced need for printing, accommodation and travel may result in cost savings.	**Scalability, Sustainability & Cost Effectiveness**	Because of its remote component, blended CPD often requires higher upfront investments in infrastructure, skills and materials development, compared to in-person CPD trajectories. As a result, initial costs may be higher than with in-person CPD.

Table 1: Potential benefits and pitfalls of blended CPD per cross-cutting theme

REFLECTION

- Which benefits and pitfalls are most pertinent to your context? Can you identify any others?
- How can I avoid excluding any groups when designing my blended CPD?
- In which circumstances would you prefer either fully in-person or remote CPD to blended CPD delivery?

WHY MOTIVATION AND ENGAGEMENT OF PARTICIPANTS ARE IMPORTANT IN BLENDED CPD

An important consideration in identifying the blend of remote and in-person learning are the engagement and motivation of participants and facilitators. *Motivation* is the process that initiates, guides, and maintains goal-oriented behaviours[viii]. *Engagement* means that participants are directing their attention and energy towards a particular task or activity despite any distractions. Engagement needs motivation, and motivation needs interest and relevance. Therefore, getting participants interested and seeing the CPD as relevant to their daily work should be the goal.

In each phase, we'll explore how engagement and motivation should be considered:

- **Analyse and identify**: start from participants' prior knowledge, their interests and needs; consider different needs of teachers (e.g. starting and experienced teachers, urban and rural areas); analyse extrinsic motivators.
- **Design and develop**: design for growth, differentiation and mastery; include opportunities for personal expression, collaboration and active learning; design for relevant and authentic assessment; consider a co-creation trajectory to strengthen the facilitator and participants' engagement. Integrate principles for learning through play (LtP), such as learning to be meaningful, joyful, socially interactive, actively engaging and iterative.
- **Implement**: invest in the skills of your facilitators and make sure they are motivated; monitor participants' activity level and progress.
- **Evaluate**: include participant and facilitator engagement and motivation levels in the evaluation of the CPD trajectory.

WHY GENDER, DIVERSITY AND INCLUSION ARE IMPORTANT IN BLENDED CPD

Participants in a CPD programme have diverse personalities, prior knowledge, learning needs, and challenges. The design and development of your CPD trajectory needs to support all participants and ensure a safe and inclusive learning environment[ix]. This is true for any CPD trajectory, but even more so in a blended format because learners may have different needs, expectations and challenges for the in-person and the remote part of the trajectory.

Inclusion is difficult to define. As used in this guide[2], it mirrors equity. A central element of inclusive education (as expressed in the UN Convention on the Rights of Persons with Disabilities) is that the education system should adapt to the learner, not the learner to the system. In the context of this guide, it means that every participant is a product of their unique lived experience and will have unique needs and assets. Inclusion is a process, rooted in the belief that every person has value and potential and should be respected[3]. Learning differences are not considered deficits, but assets from which all participants can learn.

Inclusion also relates to removing factors that exclude. Sources of exclusion may include:

- Poverty
- Language
- Ethnicity
- Location (remoteness)
- Skills
- Interests
- Sex and gender[4]
- Disability

2 And in line with the definition used in UNESCO's GEM Report 2020: https://unesdoc.unesco.org/ark:/48223/pf0000373718

3 See Olsen, B. (2011). I am large, I contain multitudes. Teacher Identity as a Useful Frame for Research, Practice, and Diversity in Teacher Education. In AF Ball & CA Tyson (Eds.), Studying Diversity in Teacher Education, 257–273.

4 A gender digital divide does exist. Many educators are women and may have less access to tech and low digital literacy, particularly in LMICS, see https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx

Recognising and developing sensitivity to diversity is essential for a trajectory's effectiveness. Studies have shown that such a sensitivity has a direct positive impact on participants' performance because an environment that appreciates gender and diversity and supports the inclusion of all, is one in which all participants learn better[x].

It is important to explicitly assess the potential impact of blended CPD on gender, diversity and inclusion. For example, women in Low- and Middle-Income Countries (LMICs) may have less access to technology and lower digital literacy skills. Blended CPD might inadvertently create or exacerbate power imbalances between women and men, or between older and younger participants. On the other hand, blended CPD can actively promote gender equality in teaching and learning practices by lowering barriers to entry and participation, and the mainstreaming of gender issues. For example, women with young children may find it difficult to travel and spend extended time away from home to attend an in-person CPD activity.

In each phase, we'll explore how gender, diversity and inclusion should be considered:

- **Analyse and identify**: analyse any sources of exclusion with the target group. Learning outcomes to reflect needs and interests of all participants.
- **Design and develop**: design taking into account diversity in initial situation, interests, goals and access to technology of participants. Differentiate in how participants (prefer to) learn, what they want to learn, when they can learn and how they want to be assessed. Design according to the principles of Universal Design for Learning (UDL) and Web Content Accessibility Guidelines (WCAG) international standards. Scan and remove forms of bias and stereotypes from learning materials.
- **Implement**: provide the type and level of support your participants need. Remember that the CPD should adapt to your participants, not the other way around. Ensure facilitators are aware of their biases and stereotypes and have the tools to address them.
- **Evaluate**: disaggregate evaluation data based on possible sources of exclusion (gender, age, location, profession, etc.). Analyse if there have been any barriers to learning.

IS BLENDED CPD SCALABLE, SUSTAINABLE AND COST EFFECTIVE?

Recent research points to a shift away from seeing ***scaling*** as mere expansion, i.e. creating larger organisations or structures, towards a sharp focus on scaling impact. Therefore, the operationalisation of scaling should consider more than reach (often measured by quantitative indicators such as the number of teachers trained) and include issues of depth of implementation (to what extent the CPD trajectory changes practices), ownership of the innovation and sustainability[xi] [xii]. The Education Scalability Checklist (ESC)[xiii] is a useful instrument to assess how a particular CPD trajectory can be scaled, identify opportunities for and constraints to scaling and plan actions to increase the potential for scaling.

In this broader conception of scaling, ***sustainability*** is one component of scaling. Sustainability may refer to the CPD trajectory itself, the learning activities or methods that are part of the CPD or to the effects on knowledge, practices or culture it aims to instil in the participants. In the first meaning, it refers to the capacity of the CPD provider to continue the CPD trajectory even when the implementation supports have been removed. In the second, it relates to questions such as whether the CPD trajectory supports teachers to develop a career-long professional learning approach, or whether the social structures of the CPD (communities of practice, mentoring) can grow and evolve over time? In the third, it is the impact of the CPD that needs to be sustained, not the CPD itself.

Scalability and sustainability should be an integral part of the design process. Therefore, we will refer to them in each phase of the guide:

- **Analyse and Identify**: develop a strategy for scaling, including the review of available evidence for the impact of the CPD, government priorities and the fit of the CPD within existing systems.
- **Design and Develop**: select technologies, pedagogies and modalities with potential scaling in mind. Co-design the CPD with partners.
- **Implement**: start with proof of concept and evaluate. Identify barriers to implementation based on process analysis.
- **Evaluate**: evaluate the impact and cost effectiveness of the trajectory. Disseminate results and advocate for scaling.

Cost effectiveness of CPD is a condition for sustainability and scalability. Cost-Effectiveness analysis is used in education to compare alternative interventions with similar outcomes such as gains in teaching skills[xiv].

Once the necessary infrastructure is in place, the marginal cost per participant for a remote CPD activity is generally lower than for an in-person CPD activity. Therefore, from a cost perspective, blended CPD has more potential for scaling than in-person CPD. However, scalability is also determined by other factors including the availability of evidence, the fit with existing CPD delivery systems, the support for the intervention, the available human capacity within the government system, the integration of its cost in line budgets and the relative advantage of the intervention compared to the status quo.

A cost effectiveness analysis consists of two components: an analysis of the cost of the CPD trajectory and an analysis of the outcomes of the CPD. This means that you can increase cost effectiveness by reducing the cost or by improving the effectiveness of a CPD.

The costs of a CPD intervention are often calculated using the ingredients method. This method requires identification of all resources that are required to produce the result. This is often easier said than done. When comparing in-person and remote CPD, we need to make a full comparison to avoid inaccurate results. Some aspects to consider in a cost analysis are[xv]:

- CPD development costs: an online learning environment often takes more time and resources to develop. Development costs strongly depend on the media used. For example, developing a scenario using authoring software such as Articulate will take more time than recording a short video. On the other hand, the costs to offer a remote or online activity might be lower than in-person, especially in areas where travel and accommodation costs are high.
- Apart from direct costs, indirect ones may need to be considered. These may include opportunity cost, cost of reform fatigue, spent social capital, etc.
- How many times the CPD can be offered and to how many participants, and how often revisions are needed.
- Costs of hardware, software (licence costs) and utilities (electricity, internet). Some of these costs might be borne by participants, for example if they are required to work from home, use their internet data to access content or bring their own device to a training session. In some cases, zero-rated environments (this means that no data cost is borne by CPD participants) might be available to bring down the cost of data usage. Total Cost of Ownership (TOC)[5] is a useful framework to identify the lifecycle cost of technology, making sure that not only the purchase cost is considered, but also the cost to maintain, repair, use and recycle it.
- Costs of learning support (moderating time, technical support). This will depend on the level of technical skills and remote learning experience of your participants. In some cases, costs may be decreased by relying more on peer support.

5 https://www.techtarget.com/searchdatacenter/definition/TCO#:~:text=Total%20cost%20of%20ownership%20(TCO)%20is%20an%20estimation%20of%20the,across%20the%20product's%20entire%20lifecycle.

- Division of labour between course developers, instructional designers, multimedia experts, technical support, etc. The design of a blended CPD trajectory often involves more people than a traditional in-person CPD trajectory.
- Time spent by different stakeholders (participants, facilitators, designers, etc.): hereby, one needs to consider the actual time spent rather than what is foreseen. For example, facilitators may spend more time than planned on supporting participants or getting them to complete tasks, and participants may spend less time than planned on the remote learning activities or may be absent from some in-person sessions.

REFLECTION

- Reviewing the criteria for effective CPD according to the research evidence, which criteria are more difficult to meet when switching to blended CPD? How can you overcome them?
- What barriers to learning can you identify for your blended CPD? How will you remove them, and how will you identify any hidden barriers to learning with your target group?
- How will you ensure that the participants of your blended CPD remain engaged and motivated until the end of the CPD?
- What does scaling mean to you in the context of your goals and context? What will be the challenges to scaling your CPD?
- Does the blended character of the CPD have an impact on the potential for scalability and sustainability?
- What effects and outcomes do you hope will last after the CPD end and how will you incorporate that aspect into your CPD programme?
- When your colleagues or partners ask you whether blended CPD is cheaper than in-person CPD, what would you answer, and what arguments would you give?

Phase 1

ANALYSE AND IDENTIFY

Step #1

KNOW YOUR TARGET GROUP

Step #2

ANALYSE THE CONTEXT

Step #3

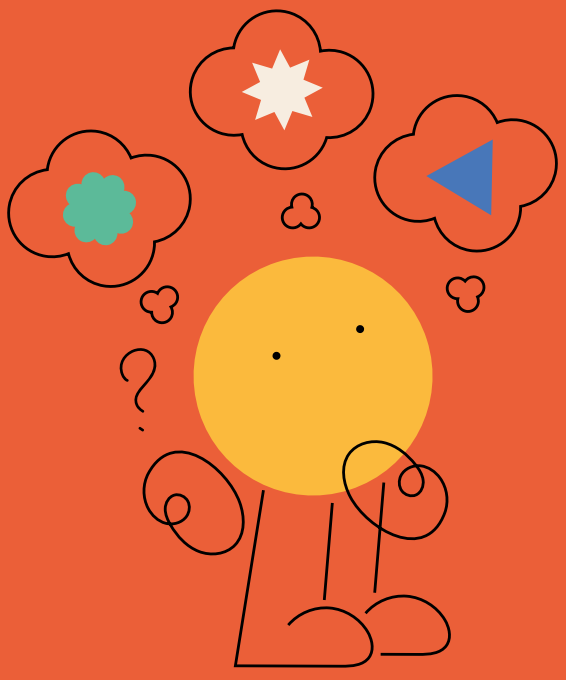
IDENTIFY LEARNING OUTCOMES

OVERVIEW

The ‘Analyse and Identify Phase’ is the foundation of a CPD development process. The aim is to get a clear picture of the participants, their learning needs and the context.

We believe that the ‘Analyse and Identify’ phase in a blended CPD trajectory differs from that of an in-person trajectory in the following ways:

- Different competences are required from participants and facilitators.
- Additional decisions need to be made in the Design Phase (how much remote, asynchronous or synchronous, etc.)
- Motivating participants and facilitators might be different for remote than for in-person CPD.
- Designing for blended learning requires explicit attention for the learner experience in both the in-person and the remote part (learner interaction, inclusiveness, etc.).



REFLECTION

- Who is your target group? What assumptions do you hold about them? Critically evaluate those assumptions: on what information are they based? Is that information still valid? Are the assumptions valid for the whole target group?
- How much time (resources) will you spend on the analysis compared to the other phases? Based on the available time (and resources), what are your priorities during this phase?

Step #1:

KNOW YOUR TARGET GROUP

WHAT SHOULD I KNOW ABOUT MY TARGET GROUP?

What is relevant for the effective implementation of the CPD? This will depend on your context, but is likely to include:

- their availability (how much time, which days and times, which periods of the year)
- their access to technology (personal and professional)
- their skills and expertise in ICT
- their self-regulation skills[6]
- what kind of CPD they have previously had
- their current skill level and capacity gaps
- any learning challenges and physical disabilities
- their educational background and/or professional credentials
- their acceptance of the proposed delivery model
- their preference for CPD delivery
- current (teaching) practices and challenges
- contextual characteristics of the education system (school details, student population, school hours, etc.)

Some considerations:

- Avoid selection bias and include all (or a representative sample of) potential participants (target group) in your analysis, not only those who have already signed up for the CPD.
- Take care to disaggregate data by gender, age, disability, and possibly other relevant variables. Analyse any risks of exclusion before you start designing the blended CPD.
- Be aware that your participants may not be a homogenous group and that there might be different levels of technology availability and preferences for CPD delivery.
- Do not collect more data than necessary. Collecting data is cost and time intensive. Identify which data are critical for the success of the CPD trajectory and balance the collection of essential sensitive data with the best interests of individuals. In some cases, the act of data collection itself may put some people at risk. Collect the minimum amount of personal identifiable information and sensitive data.
- Make sure you obtain informed consent using forms and language that are understandable to the individuals whose data are being collected[7].
- Make sure you know what technologies your participants already use and start from there. Much remote CPD can be done via smartphones, and we will discuss some options that can be used when internet connection (or electricity) is patchy.

6 Broadly, self-regulation is the ability to organise one's emotions and behaviour and thoughts in pursuit of attaining a long-term goal. It includes self-control and self-efficacy (a belief that the learner can succeed if he/she tries). Self-regulation typically involves three "phases": forethought, a focus on performance, and reflection. See https://elearningindustry.com/self-regulation-in-online-learning.

7 More info on https://digitalprinciples.org/principle/address-privacy-security/

The list below provides you with questions in the process of identifying the characteristics of your participants. It may help you to think about how these characteristics might affect your participants' engagement with a blended CPD.

WHO ARE THEY?

- What are their genders, nationalities, first language?
- When can they engage in CPD?
- What is their socio-economic status?
- How long have they been in their profession?
- What are their learning needs?
- What beliefs about teaching and learning do they have?

WHAT IS THEIR DIGITAL LITERACY LEVEL?

- What are their digital literacy skills?
- Do they use technology for teaching or in their workplace? If yes, 'how'?
- Did they participate in blended CPD before?
- What support do they need to achieve the learning outcomes?

WHAT ARE THEIR CPD EXPERIENCES?

- What was dis/satisfactory in previous CPD?
- Do they have experience with self-directed, group-led, and online CPD?
- What are their key expectations for CPD?
- What support do they expect during the CPD?

WHAT TECHNOLOGY DO THEY HAVE ACCESS TO?

- What devices do they prefer?
- Do they own or share devices, and when do they have access?
- What barriers do they face to access technology?
- What software are they familiar with?
- Do they have access to stable electricity?
- Do they have stable and fast internet connectivity?

WHAT MOTIVATES THEM?

- Do they engage more in remote or in-person activities?
- Do they like to collaborate?
- What do they prefer: self-study or facilitator led CPD?
- What are their key motivational drivers?

WHAT ARE THEIR PROFESSIONAL NEEDS?

- What is their prior knowledge?
- What are their strengths in terms of skills?
- What kind of knowledge/skills/attitudes do they need (most) to excel in their (future) role?
- What are they interested in learning more about on the topic of the CPD?

Figure 2: Sample Questions to build your Participants Profile – a version inspired by: UNICEF, World Bank (2022). Introduction: Resource Pack to support Remote Learning.

DOWNLOAD OUR **PARTICIPANTS PROFILE** TOOL

HOW SHOULD I GET THE INFORMATION?

- Surveys (be mindful of social desirability and other forms of bias[8])
- Focus groups with target groups and participants
- Interviews with stakeholders such as partners, other CPD providers, facilitators, experts, etc.

In some cases, other ways of data collection may be feasible such as:

- Analysing helpdesk requests from other courses (with similar target groups)
- Observing (potential) participants as they engage with the learning materials

REFLECTION

- What information do you really need about the participants of your CPD? How will this information influence the further design and implementation of the CPD?

8 See for example https://www.surveymonkey.com/mp/how-to-avoid-common-types-survey-bias/#:~:text=The%20six%20survey%20bias%20examples,written%20in%20an%20unbiased%20way.

IN PRACTICE

HOW **RIGHT TO PLAY** COLLECTED DATA ABOUT THE TARGET GROUP FOR THE **READING THROUGH PLAY CPD**

The participants of the Reading Through Play course, run by Right to Play (RtP), are primary- and secondary-grade teachers who are part of a project called Partners in Play (P3). This is a project in Ghana to improve the quality of education through a scalable learning-through-play model. One of the main activities is training teachers. A Continuum of Teacher Training approach is used where the training is developed from a child-centred learning lens.

We considered the teachers' digital skills level when piloting the course. Therefore, we surveyed teachers in:

DIGITAL LITERACY

- Knowledge of a computer/ laptop/mobile device
- Navigating the internet
- Using mobile apps

ACCESS

- How and when they use their mobile device
- How they accessed Internet

EQUIPMENT SPECIFICATIONS

- Type of mobile device they use
- Version of operating system on their mobile device
- Version of web browser on their mobile device
- Available data storage

ATTITUDE

- Their experience in taking an online course
- Their perceptions/expectations of a blended training course

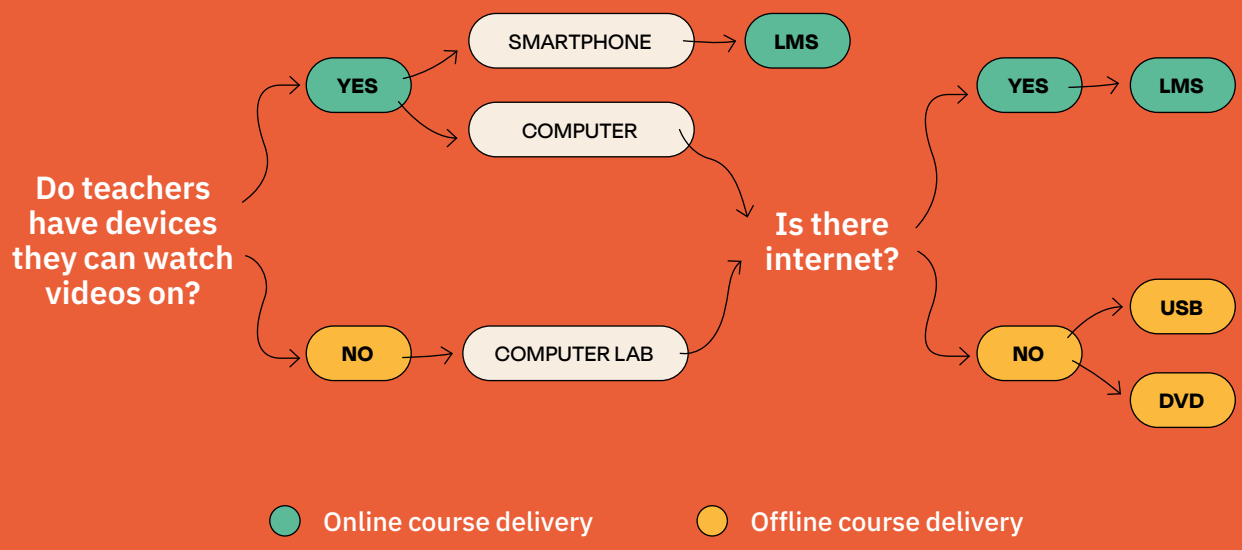
Based on the responses, we conducted an in-person orientation and distributed a step-by-step guide on how to access the course. The workbook included short tutorials on how to interact with activities in each module. We also ensured the course was accessible on mobile devices and offline. The variation among teachers' answers led us to incorporate a basic ICT training in the CPD.

IN PRACTICE

HOW **AGA KHAN FOUNDATION** USES A DECISION TREE TO ASSESS PARTICIPANTS' **ACCESSIBILITY TO TECHNOLOGY**

Considerations for accessible online learning are multi-facetted. One core aspect is learners' accessibility to devices and bandwidth for watching instructional videos. The Aga Khan Foundation uses a simple "decision-making tree" for assessing participants' accessibility to appropriate technology which influences how video-based learning content is disseminated.

Not captured in the "tree", but of importance is how the accessibility to different types of devices influences content creation. For example, data from the Aga Khan Foundation's Learning Hub demonstrates that learners with mobile devices spend on average 5.5 minutes engaged in learning compared to those with desktops and tablets who spend over 16 and 45 minutes respectively. Producers of learning content can use such data to make decisions around dissemination strategies as well as length of learning content.



Step #2:

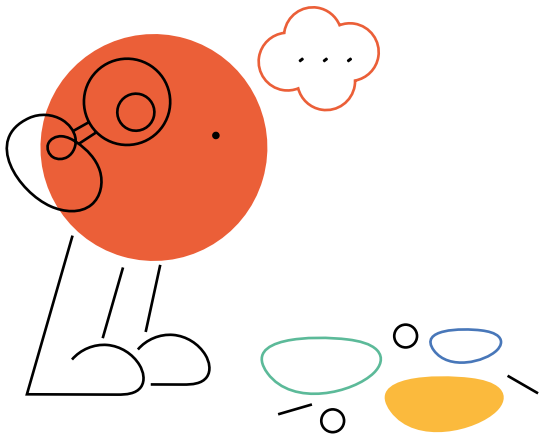
ANALYSE THE CONTEXT

The context includes a range of factors that might enable or obstruct an effective blended CPD trajectory. It is recommended to draw a clear picture in advance of all the complexities that might impact design, development and implementation.

RESOURCE MAPPING

Resource mapping is a strategy for identifying and analysing the existing programmes, people, services, and other resources and could be useful when designing blended CPD[xvi]. This may also include a scan of the policy environment, exploring themes like:

- Is blended CPD a priority for the government?
- What CPD systems are already in place and are they compatible with blended CPD?
- What investments are planned to facilitate blended CPD?
- What policies are in place or planned to motivate educators to take part in blended CPD?



Resource mapping aims to:

- Identify available resources (programmes, people, materials (analogue and digital, etc.)
- Assess how resources (human and financial, etc.) are used and in what capacity
- Identify gaps and overlaps in resources (e.g. capacity gaps)
- Identify potential partners (e.g. service providers)
- Identify resources needed

Use the 'Resource Mapping Tool' to compile information.

Indicate the status of these resources by investigating:

Availability: are technology, learning content, programs, physical venue, etc. easily and safely accessible for all participants?

Adaptability: can resources be adapted (re-designed, re-shaped, refined or curated) to align with the needs of the blended CPD (licensing, file formats, language, etc.)?

WHAT INFRASTRUCTURE IS AVAILABLE?

Blended CPD requires infrastructure for in-person activities, and for remote learning activities. For the in-person activities: venues, transport, weather situation, costs, etc.

For the remote part, a blended CPD trajectory might encompass a wide range of technology options (Figure 3), ranging from low-tech to high-tech. High-tech solutions are characterised by access to consistent and high-speed Internet. Low-tech is characterised by irregular or sporadic access to the Internet or no connectivity. There are crossovers between the levels. For example, an LMS could have downloadable PDFs of teaching and learning materials (medium tech) or a video of model teaching (high tech).

The 'Sample of Technology Assessment Survey' helps you to uncover aspects that have direct implications for the CPD trajectory design and implementation. This survey can be conducted with the target group of the blended CPD to assess their access to technology.

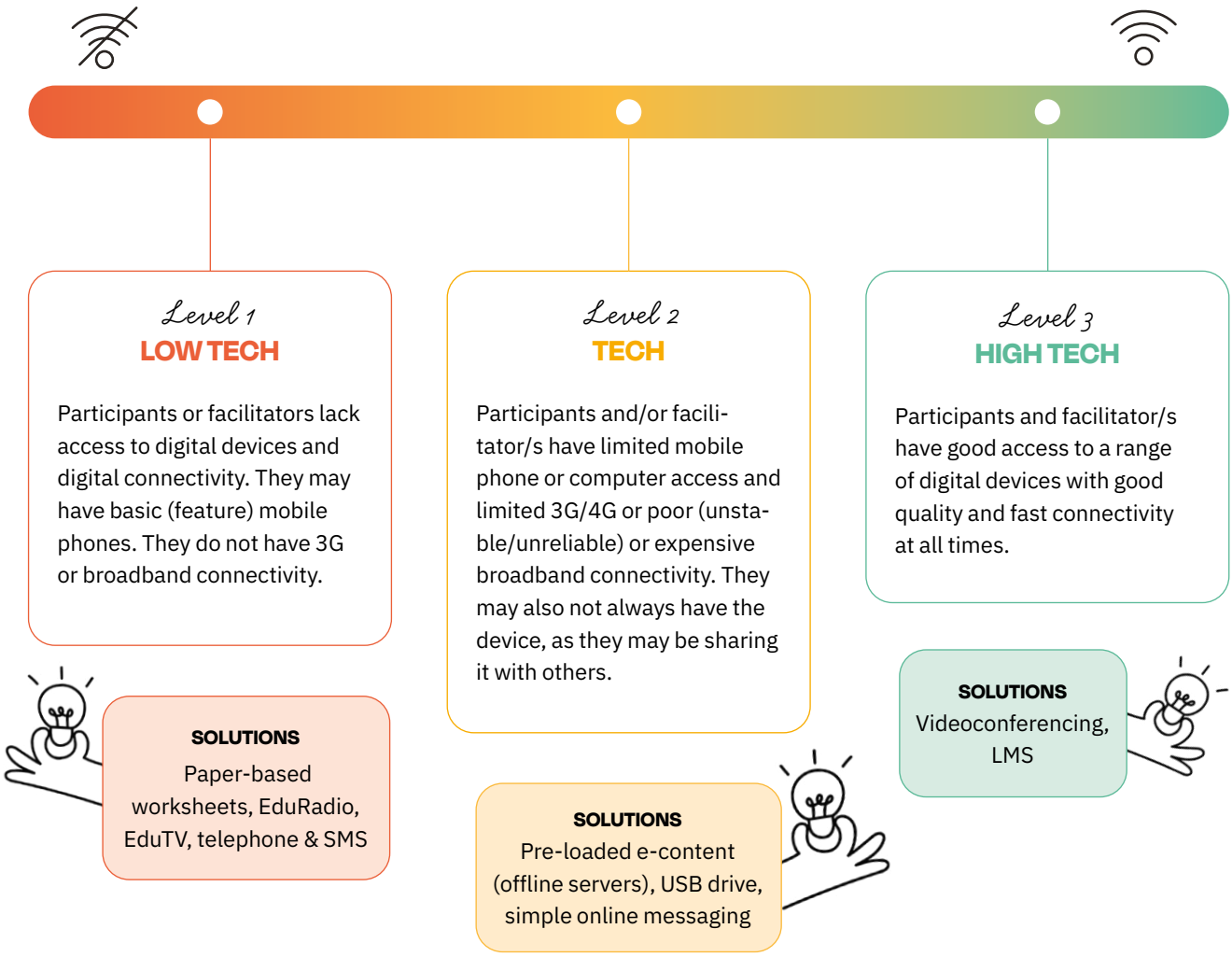


Figure 3: Levels of Technology Availability

WHAT MATERIALS ARE AVAILABLE?

Often, when designing a blended CPD trajectory, you will re-use or adapt existing materials. It is a good idea to spend some time analysing this content and identifying what can be used, what needs to be adapted and what new materials need to be developed[9].

Some steps that you can take are:

- Form a content development team, which will analyse the available content, preferred pedagogical approaches and strategies. Agree on a strategy to identify content and on benchmarks for quality and relevance.
- Schedule a series of meetings to answer the provided 'Pedagogy & Content Assessment Guiding Questions'. You may add or edit questions as needed. Remember that your assessment needs to include three main components: 1) Pedagogy, 2) Content Design and 3) Assessment.
- Consult other relevant stakeholders, e.g. providers of previous CPDs, department heads, etc. to ensure that you have all the necessary information.

Reusing and adapting can dramatically reduce the time needed for development and testing and reduce your costs. By making the improved materials openly available, you also give back to the global community. Conditions for using, reusing or adapting materials are specified by its licensing. You may consider making any materials you create available as Open Educational Resources (OERs)[10] for reuse and adaptation under a Creative Commons license[11].

REFLECTION

Think about the resources you have available and resources that you need.

- Are the selected resources the most cost-effective?
- Are these resources meeting the needs of the blended CPD?
- Are there other resources that may be more cost-effective for your blended CPD?
- Will these resources motivate and engage participants?
- Do these resources cater to the principles of diversity, inclusion and gender responsiveness?

9 https://digitalprinciples.org/principle/reuse-and-improve/
10 https://www.oercommons.org/
11 https://creativecommons.org/

WHAT COMPETENCES DO YOUR FACILITATORS HAVE AND NEED?

Research shows that CPD is only as good as its facilitators. This means that selecting, training, and supporting facilitators is a condition for successful blended CPD. A blended CPD trajectory does not require the same competences from facilitators as when facilitating an in-person trajectory.

It is a good idea to identify what competences your facilitators need. You can use this list to select the right facilitators or to discuss with them what competences they need to strengthen. Such competences may include:

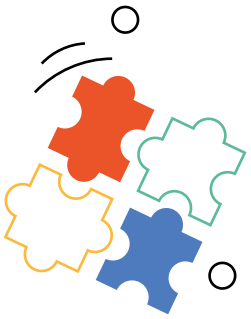
- Basic digital literacy skills
- Gender awareness
- Using specific software (e.g. LMS)
- Typing skills
- Online moderation skills (synchronous and asynchronous)
- Motivating participants during remote learning
- Conducting online assessment (anti-plagiarism and proctoring tools, providing online feedback)
- Time management skills
- In-person facilitation skills
- Empathy

Facilitators may not always realise what competences they need, especially when facilitating a blended CPD trajectory for the first time. Therefore, you need to offer continuous support throughout the CPD trajectory (see implementation).

Further information you may collect about your facilitators is:

- Have they delivered CPD trajectories before (in-person/blended/online)?
- Which technology have they used before?
- Which strengths do they have for facilitating blended CPD?
- Which challenges do they expect for facilitating blended CPD?
- How motivated are they to facilitate blended CPD?
- How much time can they spend on the blended CPD facilitation (and on what days and at what times)?

Finally, in some cases, you may also need to identify the needs of other stakeholders in the blended CPD trajectory. For example, you may need to discuss with an operational partner such as an academic institution what resources are available, and how the blended CPD can be embedded in the organisational structure. In other cases, local governments or pre-service institutions may need to be consulted to align the blended CPD trajectory with government needs and regulations. Such early analysis and alignment will increase the likelihood that the blended CPD will be sustainable.



IN PRACTICE

SUPPORTING ADOLESCENT GIRLS' EDUCATION (SAGE) PROGRAMME:

the evolution of a blended CPD model | by Plan International

SAGE is funded through the Foreign, Commonwealth and Development Office's (FCDO) Girls' Education Challenge initiative. It is a non-formal education programme in Zimbabwe, delivered through a consortium, led by Plan International in partnership with the Ministry of Primary and Secondary Education (MoPSE). Its aim is to help the most educationally marginalised acquire foundational literacy and numeracy skills. SAGE seeks to promote and improve education for girls by tackling the root causes of gendered social and economic barriers, creating an enabling environment for transforming gender norms.

SAGE organises its Community Educators into local learning hubs across 11 districts. Hub-based staff are supported by formal schoolteachers who provide ongoing mentoring and CPD. Prior to the pandemic, the CPD model included face-to-face workshops only.

Covid-19 restrictions led to educational closures. The move to WhatsApp training was a realistic pivot due to reliable mobile phone connectivity. WhatsApp enabled the technical team to continue with CPD as Community Educators adapted to facilitating distance learning and to training new volunteers. The use of WhatsApp allowed for continuous dialogue and increased opportunities for reflective practice.

Initially, WhatsApp training engaged educators through large group work. Feedback from facilitators and Community Educators shaped the approach to move to smaller groups to allow for more in-depth discussions.

The UK Open University (OU) was part of the SAGE technical team to virtually lead WhatsApp training sessions for facilitators. In some instances, CPD sessions for Community Educators were co-facilitated by the technical team to build confidence. All facilitators attended reflective sessions and gave feedback on the approach.

Training materials were succinct, accessible, and compatible with smartphone access. Two-hour WhatsApp workshops for facilitators posed key questions grounded in the case studies. Later, the model moved to smaller group training with sessions focussing on 'Plan, Do, Feedback, Reflect,' with staff from hubs across districts working as sustainable geographical communities of practice. As Covid-19 restrictions eased, the training model has become a blended CPD model retaining the benefits.

A **blended CPD** trajectory does not require the same competences from facilitators as when facilitating an **in-person** trajectory.

REFLECTION

- When moving from an in-person to a blended CPD trajectory, how does this impact the learning outcomes?
- When designing a blended CPD trajectory from scratch, are there specific learning outcomes resulting from the blended nature of the CPD trajectory?

Step #3:

IDENTIFY LEARNING OUTCOMES

WHAT ARE LEARNING OUTCOMES?

Learning outcomes describe what a participant will be able to do, the conditions under which these activities will take place, and the desired performance level after completing the CPD successfully. They are goals broken down into specific and contextualised and measurable skills and behaviours.

Learning outcomes can be formulated for the full CPD trajectory, for parts of the trajectory, or for specific CPD activities.

WHY ARE LEARNING OUTCOMES IMPORTANT?

Taking time to (re-)define your learning outcomes will help you to create a more effective and coherent pedagogical strategy and assessment process. More specifically, benefits of developing and sharing learning outcomes are to:

- Help facilitators to precisely communicate expectations to their CPD participants
- Help participants to learn more effectively as the curriculum is made more transparent
- Assist facilitators with choosing appropriate CPD methods and assessments
- Inform participants how assessment tools align with learning outcomes
- Inform participants how acquired knowledge and skills can be used
- Help CPD providers to assess the effectiveness and impact of the CPD trajectory

HOW DO YOU FORMULATE GOOD LEARNING OUTCOMES?

The process of formulating learning outcomes is preferably not an individual process but is best done with your team and stakeholders.

A useful methodology is backward mapping. This means starting with the endpoint (what educators should be doing after they completed the CPD) and then working backwards from that until you get to the nuts and bolts of the CPD programme.

Use the formulation of learning outcomes to discuss with your team and partners about what you want people to learn. Start from what you consider the overarching purpose of a trajectory, why it is needed, what problems it is trying to solve, what questions it is exploring or tackling, what makes it distinctive. Afterwards, you can focus on the formulation of learning outcomes in the correct style and syntax.

Some guiding questions:

- What is the expected initial competence level and what is the desired level at the end of the CPD trajectory?
- Do learning outcomes reflect the performance needs (gaps in knowledge and skills)?
- Are the learning outcomes inclusive and gender responsive? Do they differentiate for the diversity of participants?
- Are the learning outcomes realistic? Can they be achieved with this CPD? Is there sufficient time for practice? Is there sufficient time to change habits?

☑ CHECKLIST ANALYSE AND IDENTIFY

KNOW YOUR TARGET GROUP

- ☐ Have you investigated the profile of your participants?
- ☐ Do you know your participants' professional development needs?
- ☐ Do you know your participants' digital literacy level and ability to participate in a blended CPD trajectory?
- ☐ Have you investigated participants' beliefs and attitudes towards technology and remote learning?
- ☐ Do you know what motivates your participants to take part in CPD?
- ☐ Have you identified which data are critical for the initiative's success, thereby balancing the collection of sensitive data with the interests of your target group?
- ☐ Have you obtained informed consent from participants and other stakeholders to collect and use their data?

UNDERSTAND YOUR CONTEXT

TECHNOLOGY

- ☐ Have you made an inventory of the available technology and how it has been used?
- ☐ Have you made an inventory of the needed technology investments in devices, programs, and infrastructure?
- ☐ Have you considered how technology may remove, but also erect barriers to learning for some participants?
- ☐ Have you assessed what technology support is needed?
- ☐ Have you weighed up the differential benefit of technology use in CPD in comparison with other relevant factors, such as facilitators' preparation?
- ☐ Have you critically investigated the evidence base regarding the selected education technology, and considered low-tech alternatives?
- ☐ Have you assessed the cost implications for participants to take part in blended CPD?
- ☐ Are there any regulations regarding data protection & privacy that need to be adhered to?

REFLECTIONS

UNDERSTAND YOUR CONTEXT
PEDAGOGY AND LEARNING CONTENT

- [ ] Do you know what content and activities you need to develop or acquire?
- [ ] Have you considered in what format(s) the content be developed?
- [ ] Have you compared various pedagogical approaches and decided on the approach for your CPD trajectory?
- [ ] Have you searched for Open Educational Resources (OERs) and considered their usability for your CPD?
- [ ] Have you developed a plan including costing for the development or adaptation of learning content?
- [ ] Are you aware of the attitudes of your participants towards your pedagogical approach?

UNDERSTAND YOUR CONTEXT
FACILITATORS

- [ ] Have you assessed your facilitators' competences to facilitate a blended CPD trajectory?
- [ ] Have you identified a set of competences to strengthen and an implementation strategy (timing, methods, content)?

DEVELOP (REVISE) LEARNING OUTCOMES

- [ ] Have you formulated learning outcomes starting from clearly identified performance gaps?
- [ ] Have you considered whether learning outcomes differentiate for the diversity of participants, are inclusive and gender responsive?
- [ ] Have you considered whether the learning outcomes can be achieved by participants by completing the CPD?

REFLECTIONS

Phase 2

DESIGN AND DEVELOP

Step #1

DEFINE YOUR CPD TRAJECTORY, LEARNING TYPES AND METHODS

Step #2

DECIDE ON CPD MODALITIES

Step #3

SELECT SUPPORTING TECHNOLOGIES AND DESIGN ACTIVITIES

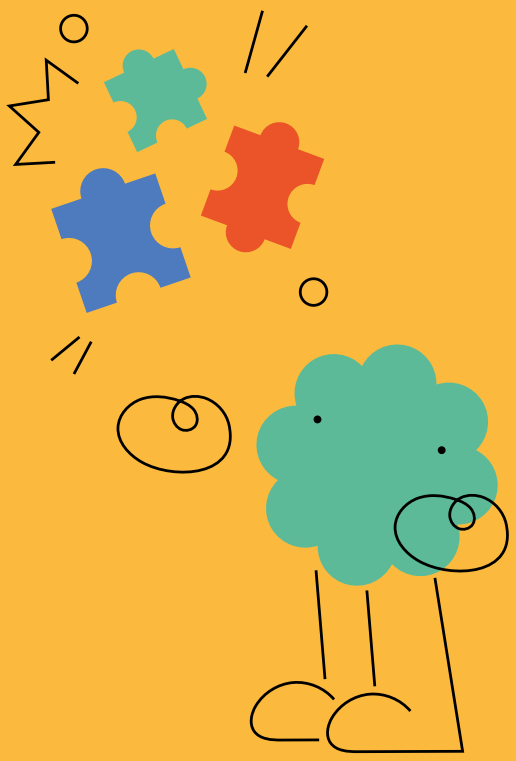
OVERVIEW

In this phase, you will learn how to combine CPD activities into a blended CPD trajectory.

By design we mean the development of a plan for the CPD trajectory. Development refers to the development of the teaching and learning activities.

Effective design of CPD trajectories is critical because if you get the foundations wrong, you are building on quicksand. There are many examples of CPD trajectories that are disjointed collections of modules and in which coherent consideration of how learning happens and is supported through teaching, activities and assessment is lacking.

In this phase, it is necessary to involve peers in the design of the CPD trajectory. Also consider designing your CPD trajectory with users in a co-creation process.



HOW IS THE DESIGN AND DEVELOPMENT PHASE DIFFERENT FOR A BLENDED CPD TRAJECTORY COMPARED WITH AN IN-PERSON TRAJECTORY?

- The design of your learning trajectory is necessary to achieve an optimal interaction between in-person and remote learning with bridging activities.
- Facilitators have fewer opportunities to intervene during remote learning, in case learning materials are not clear or accessible, or when participation does not happen as planned. Therefore, explicit, and careful design is even more important for blended CPD than for in-person CPD.
- Resources for online or remote learning are often designed and developed for multiple iterations. Getting them right is therefore crucial.

REFLECTION

Reflect on how to engage your peers through setting up a 'design and development team'. Think about:

- Who should be part of this team?
- How will you ensure an efficient design and development process?

- When designing for blended CPD, often more people with various backgrounds are involved, such as content specialists, designers and technical experts. This increases the need for a well-structured design process.

Step #1:

DEFINE YOUR CPD TRAJECTORY, LEARNING TYPES AND METHODS

DEVELOP THE STRUCTURE OF YOUR CPD TRAJECTORY

The design and development process consists of various steps. Rather than immediately developing teaching and learning activities, it is advisable to start with the design of the overall CPD trajectory, and gradually move from the broad structure to more detailed design decisions on modalities, methods and, finally, activities (Figure 4). This will ensure coherence, variation and help you to make sure that all learning outcomes are addressed.

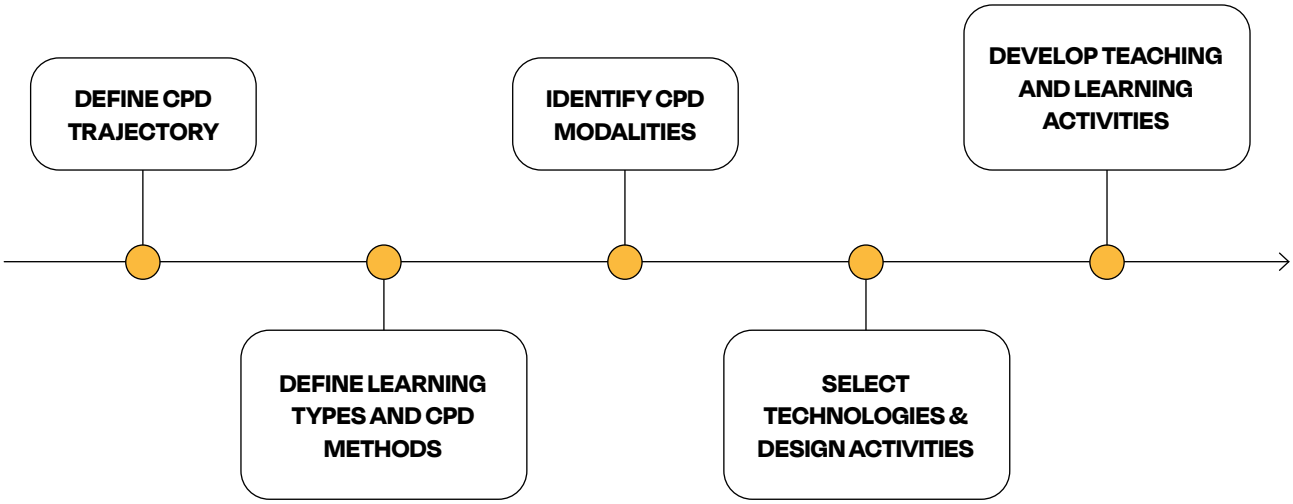


Figure 4: Overview of the design and development process of blended CPD

Other important layers to design representations are: where practice, performance or application will take place in your CPD trajectory, where feedback dialogues and interactions take place and where in the trajectory formative and summative assessments are planned.

The 'Blended CPD Design Matrix' is a template for the design of a CPD trajectory. It helps you to visualise the CPD trajectory. It is sometimes also referred to as a **CPD storyboard**, outlining the type and sequence of CPD activities required to meet the learning outcomes. It can help you to make sure the CPD trajectory is coherent, and that each learning outcome is matched with learning and assessment activities.

Figure 5 is a sample CPD design matrix which includes all components of a blended CPD trajectory and that you can populate with CPD activities. "Notes" with CPD activities are already placed in the design matrix to illustrate the concept. Below, we explain in detail the various parts of the CPD design matrix such as learning types and CPD methods.

BLENDED CPD DESIGN MATRIX

LEARNING OUTCOMES						
TARGET AUDIENCE						
TIMELINE						
	CPD SEGMENT 1		**CPD SEGMENT 2**		**CPD SEGMENT 3**	
	CPD ACTIVITY 1 Learning Outcome 1	**CPD ACTIVITY 2** Learning Outcome 2	**CPD ACTIVITY 3** Learning Outcome 3	**CPD ACTIVITY 4** Learning Outcome 4	**CPD ACTIVITY 5** Learning Outcome 5	**CPD ACTIVITY 6** Learning Outcome 6
MODALITIES						
IN-PERSON		CPD LEARNING TYPE AND METHOD		CPD LEARNING TYPE AND METHOD		CPD LEARNING TYPE AND METHOD
REMOTE/ SYNCHRONOUS	CPD LEARNING TYPE AND METHOD				CPD LEARNING TYPE AND METHOD	
REMOTE/ ASYNCHRONOUS			CPD LEARNING TYPE AND METHOD			
TECHNOLOGIES						
HARDWARE						
SOFTWARE/ APPLICATIONS						
PLATFORM						

Figure 5: Sample Blended CPD Design Matrix

Visual mapping and diagramming are useful techniques to visualise the sequencing, the learning journey and the inter-relationships. Visualising the design will help you, your partners, and your participants (in case of a co-creation design process) to understand the structure of the CPD trajectory and the role of each part. Canvassing software such as Miro[12] can help to realise the design, develop a sequence of modules, draw out pathways and journeys and map desired skills progression and knowledge acquisition. They also enable you to work collaboratively and asynchronously.

A CPD trajectory is often divided into smaller **segments** such as units or modules. Each segment consists of one or several CPD activities. It is best to start from the CPD trajectory level, then look at a sensible division into segments (e.g. units, modules) and finally insert the **CPD activities** within each segment. For each activity, segment and trajectory, a time (e.g. in number of hours) and timeframe should be defined.

We identified learning outcomes in the previous phase. It is a good idea to link segments and activities to specific learning outcomes. As such, designers and participants know why certain segments and activities have been included in the trajectory and can identify any gaps.

REFLECTION

- Apply the Sample Blended CPD Design Matrix to an existing (blended) CPD trajectory. Does it work for you? What would you change?

12 https://miro.com/

IN PRACTICE

BLENDED DAYCARE TRAINING:

how BRAC IED adapted the CPD system to the learner

Due to the COVID-19 pandemic, BRAC Institute of Educational Development (BRAC IED) designed and implemented an online daycare training for aspiring women daycare entrepreneurs. Initially, the plan was to move to a face-to-face modality. However, this would significantly increase the training cost (around 60%) and it would not have been feasible for participants from different cities in Bangladesh to attend. Keeping these in mind, a blended CPD approach was considered with the design framework of 10 days of online training (as before) with a one-day field visit (in addition).

10-DAY SYNCHRONOUS ONLINE TRAINING

The training introduces the basic concepts of a standard daycare service to enhance participants' knowledge, skills, and attitudes in the field. The training contents cover subject areas such as ECD, psychosocial support, play-based curriculum, space design, and basic business concepts for daycare facilities among others. An interactive pedagogy is followed to keep participants engaged and make online learning effective (brainstorming, group discussion, group work, etc.). The sessions are held via Zoom.

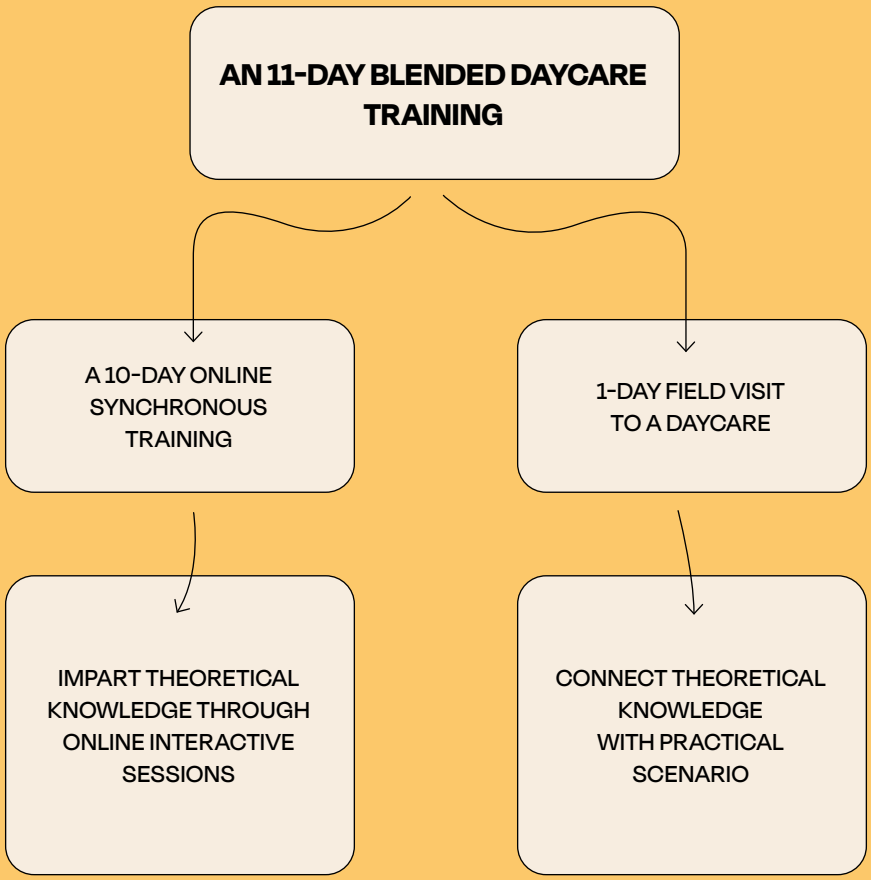
1-DAY FIELD VISIT

In the revised design, a one-day field visit is added. This design change was seen as crucial because online sessions cannot fully incorporate the practical experience crucial for professional development training in daycare. The inclusion of a one-day in-person visit was financially feasible and added a component of face-to-face active learning.

CHALLENGES AND MITIGATION STRATEGIES

The participants are diverse in terms of socio-economic background, educational qualification, profession, religion, and ethnicity. There were challenges with limited access to technology, digital literacy level, language barriers, and remote location. Thus, strategies had to be implemented to mitigate these issues.

For communication and information sharing, emails were used. Classes were conducted via Zoom and a Zoom auto attendance record report was used for reference. There were participants who did not know how to use emails or have their own email. In some cases, they were not familiar with Zoom. As a result, class invitations were sent, and email addresses were collected through SMS (zoom link, etc.), and follow-up calls were made to ensure participation and give instructions. Also, a Zoom orientation session was held at the start of the training. Participants were given certificates of completion based on their attendance and participation. Although BRAC IED has a Learning Management System (LMS), for this group, training documents were shared with participants through Google drive. Feedback for evaluation and improvement could be submitted through email and WhatsApp.



IDENTIFY CPD LEARNING TYPES AND METHODS

When you have identified the structure of your CPD trajectory, you can identify the **learning types** and **CPD method(s)** that you want to use.

Learning types help you to describe and discuss the type and sequence of learning activities (both in-person and remote) required to meet the learning outcomes.

CPD methods describe the type of activity that will be used to strengthen the capacity of participants.

Figure 6 is based on the 'learning types' as outlined by the **'Arena Blended Curriculum (ABC)' Learning Design method**. Learning types are activities that learners engage in to achieve the learning outcomes. They are useful when deciding and thinking about CPD activities within your CPD trajectory. ABC Learning Design is based on the 'Conversational Framework' created by Diana Laurillard at University College London in (2012) and developed by Clive Young and Nataša Perović in 2014.

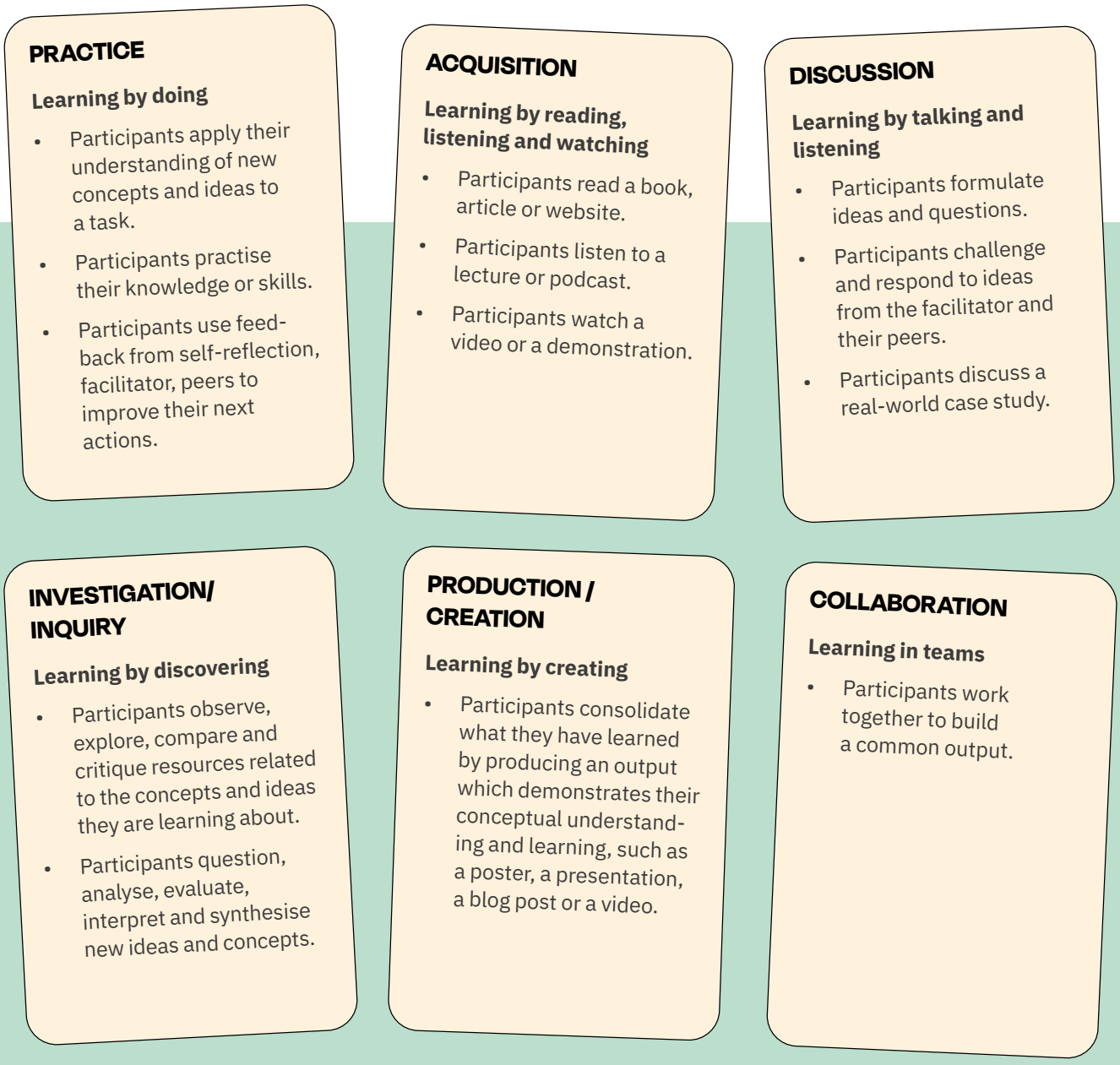


Figure 6: Learning Types[13]

13 Laurillard, 2012

In addition to the six learning types in the Conversational Framework, other learning types can be relevant when designing blended CPD trajectories, such as raising awareness, demonstration and evaluation/ reflection on learning (Figure 7).

EVALUATION/ REFLECTION

Learning by reflecting on practice

- Participants reflect individually or in groups on their practice with the help of a facilitator.
- Participants reflect on other practice by analysing a case study.
- Participants give peer feedback on a task.
- Participants evaluate an example of a good practice.

DEMONSTRATION

Learning by observing

- Demonstrate a skill.
- Participants watch an interactive video.
- Participants use scaffolding tools to understand the different steps in a demonstration.

RAISING AWARENESS

Learning by reading, listening and watching

- Participants listen to a short lecture or watch a video.
- Participants visit a school, company or organisation.
- Participants talk with inspiring people or role models.
- Participants read the results of research.
- Participants complete a self-assessment.

Figure 7: Additional learning types for blended CPD

REFLECTION

- Which of the learning types or CPD methods in the table below are appropriate and would be useful to address the identified learning outcomes in your CPD trajectory?

Figure 8 includes a list of CPD methods. CPD methods are types of capacity development activities. During these activities, various learning types can be used (see above). This list is useful in widening the scope of methods to consider in a learning trajectory. For example, starting with an event such as an exchange visit can be a useful way to raise awareness about the learning content and build a community.

DESCRIPTION
Self-study – activity that is completed individually by the participant on their own time and schedule. There is no real-time instructor like in a webinar or a classroom setup. The content can be delivered in a variety of formats, such as online with on-demand videos, pre-recorded webinars, or textbooks.
One-off training – structured activity to convey knowledge in an ordered way focused on strengthening individual competences, designed around learning outcomes.
Workshop – activity where all participants jointly develop practical skills, techniques, ideas or outputs. Compared with a training, the focus in a workshop is more on developing outputs and joint problem solving.
Shadowing/Observation – observing someone as they go about their day-to-day job or undertake a specific task.
Mentoring – involves passing on tips from experience, attitudes, knowledge, contacts, etc. from more experienced to less experienced individuals. The 'mentor' is someone with an established reputation in the field. The mentee would normally set the agenda and have control over the timing, etc. Effective method for leadership development.
Peer Support-Coaching – means that 'the coach' facilitates the self-directed/self-discovery learning of 'the coachee' through questioning and active listening, to enhance their professional growth and development.
Study and exchange visits – organised visits to learn about a specific experience or gain exposure to the ways of working of an organisation, institution, team, etc. through observation and direct interaction.
Events – organising, presenting or participating in a conference, seminar or webinar to share ideas and lessons learnt, for networking, advocacy and/or lobbying.
Community of Practice (CoP) or Professional Learning Community (PLC)[14] – group of individuals who share their experiences and build their knowledge together, focused on specific themes, technical or professional areas, processes, etc.

Figure 8: Overview of CPD Methods

14 For the scope of this guide, we do not distinguish between COPs and PLCs

Learning types and CPD methods are useful tools to structure discussions and generate ideas in the CPD design process. Based on our experience with designing blended CPD trajectories, we give the following tips:

- Are your participants already aware of the problem, situation or capacity gap that you want to address? If not, awareness raising is an important first step. This can be done by a presentation or letting them watch a video, but it can be made more powerful by an exposure visit or testimony.
- Provide sufficient time for participants to practise. Start with practising in 'safe' situations, such as micro-teaching and gradually move to practising in more complex situations such as the classroom.
- Learning types may be linked to the revised version of Bloom's taxonomy[15] to make sure your CPD trajectory does not remain "stuck" at the lower levels.
- Allow for opportunities for participants to test whether they have achieved the learning outcomes, and access immediate and concrete feedback.
- Create a balance of individual, small group and whole group activities.
- It is generally better, and more cost efficient, to design your CPD with inclusion in mind rather than adjusting it afterwards. However, some sources of exclusion may only appear during implementation, which makes it important to adapt your design and make sure facilitators can correct.
- Using the learning types and CPD methods will help you to add variation to your CPD trajectory. Functional variation of learning types and methods is a very important characteristic of strong CPD trajectories.

15 See for example https://thesecondprinciple.com/essential-teaching-skills/blooms-taxonomy-revised/ for an introduction to Bloom's revised taxonomy

IN PRACTICE

THE **BRAC** PARACOUNSELLOR MODEL

The BRAC Paracounsellor Model is a 4-tier referral pathway to ensure mental health support to beneficiaries. During the COVID-19 pandemic, the model transitioned to a blended modality. The recruitment of paracounsellors, their training, workshops, skill tests, documentation, regular supervision, etc. were moved online. Concurrently, psychosocial services were provided through mobile feature phones as most beneficiaries do not have access to smartphones.

Depending on the availability of resources and/or context, the modality of the training process is determined. The paracounsellors take a 5-day basic skills training programme. Post training, the paracounsellors go through a one-month online handholding process during which they learn from an experienced paracounsellor. After this handholding process, the first assessment of the paracounsellor is conducted. Post assessment, the paracounsellor is permitted to work with beneficiaries and become familiar with the ICT requirements. After three months, the second assessment is conducted. Subsequently, refresher CPD training sessions strengthen the skills of paracounsellors.

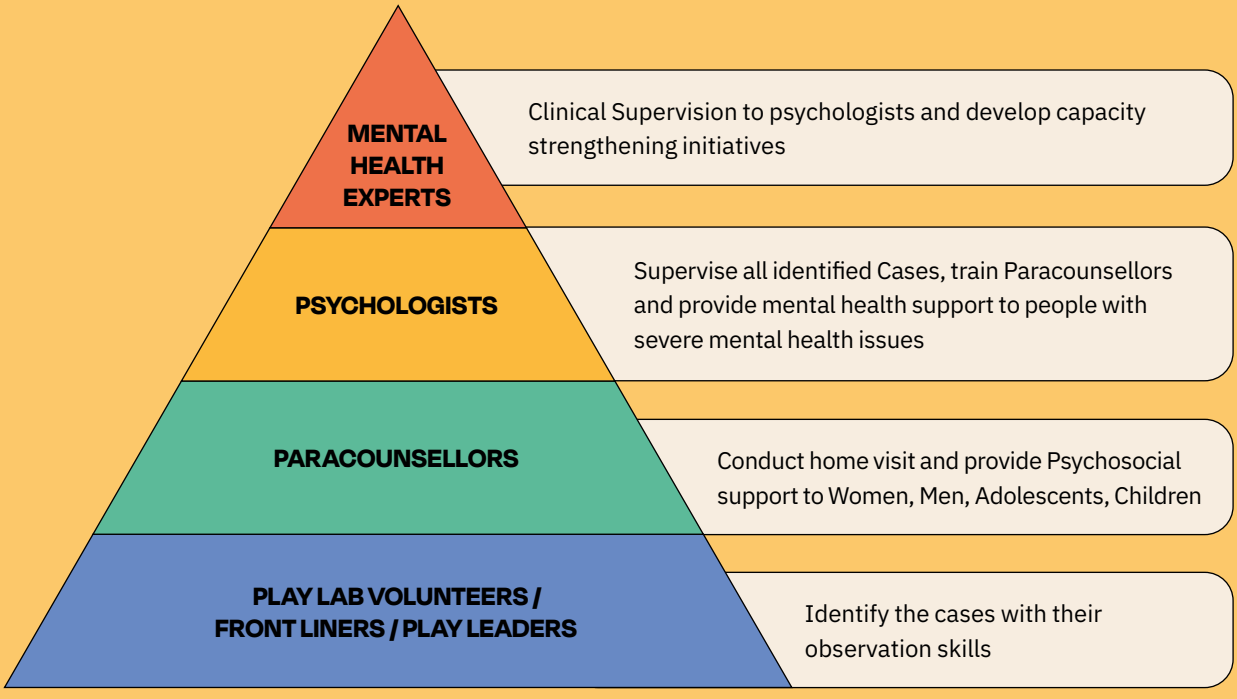


Figure 9: Para-counsellor model (online and/or offline) depending on availability of resources/context

Simultaneously, psychologists provide training and supervision to paracounsellors. The blended modality of the skills development process of paracounsellors ensures the model can manoeuvre depending on the availability of resources and context. For instance, effective skills development channels are usually sustained online, but when needed, the concerned psychologist might address the concerns of the paraprofessional in-person. The validated tools used in this model (GHQ-12, PHQ-9, SDQ, KAP, Child Screening tools, etc.) were all adapted to the Bangladeshi and Rohingya cultural context to screen and access the beneficiary's specific mental health concerns/needs. In addition, fidelity tool(s) are used to assess the competency of the paracounsellor regarding their skills and how proficiently they apply them. Regular monitoring is ensured by uploading all relevant data to a secure and encrypted platform (TAROWORKS). These data are kept confidential. Data security enables different groups – psychologists, monitoring & research team, and software team to coordinate while upholding safeguarding policies.

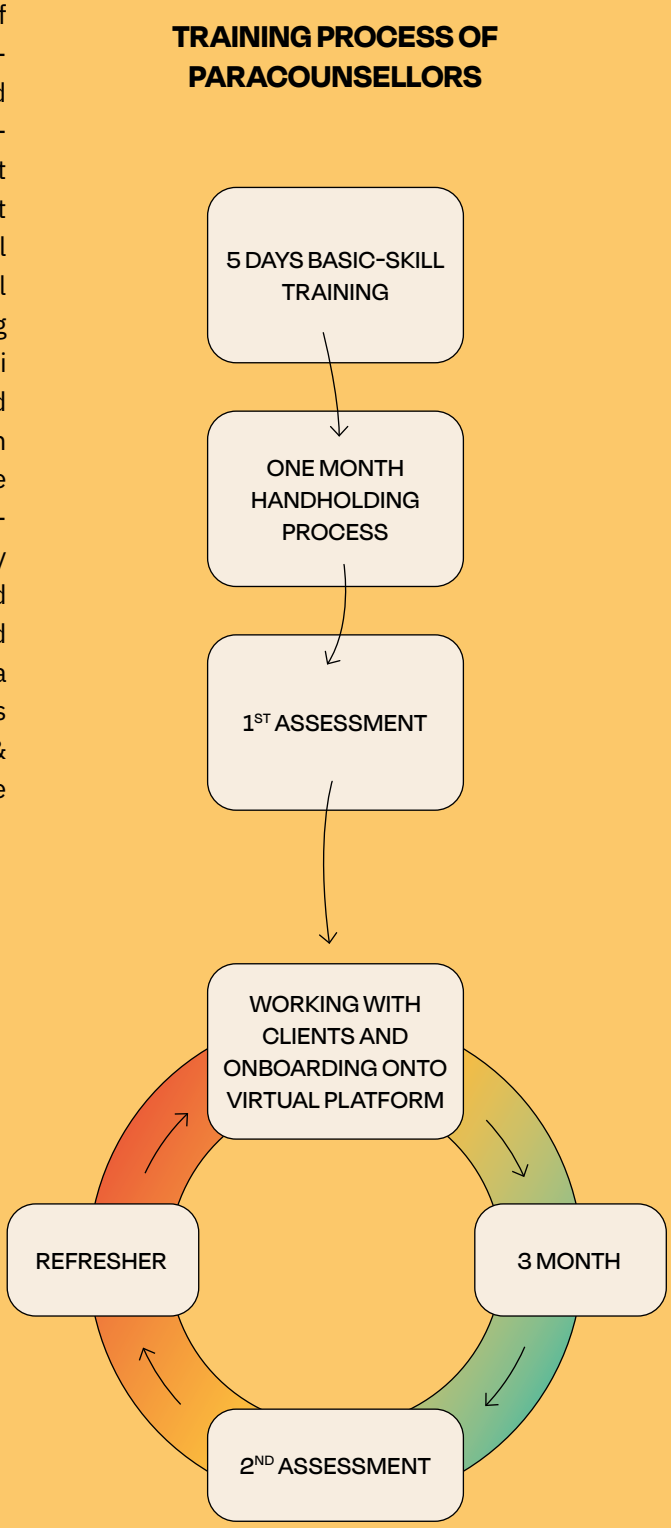


Figure 10: Training Process of paracounsellors depending on the availability of resources/context

Step #2:

DECIDE ON CPD MODALITIES

After defining the overall structure of your CPD trajectory, the learning types and CPD methods, the next step is to decide on the modalities. All learning types and CPD methods can be used in-person or remotely (online or offline).

Figure 11 provides an overview of benefits and limitations of various CPD modalities and examples of how to combine in-person and remote CPD activities into a blended CPD trajectory.

IN-PERSON

Description	CPD activities take place in person with a facilitator and participants in the same physical location at the same time. An example is CPD participants and facilitator interacting during a training, workshop or coaching session that takes place physically in real time.
Benefits	• Opportunity for informal contact & getting to know facilitator and participants. • Opportunity for direct and immediate feedback and progress monitoring.
Suitable for	• Smaller groups of CPD participants with lack of or poor digital literacy. • Practical training or workshop where direct observation is crucial. • Developing skills and changing attitudes. • More complicated or ambiguous insights (which are difficult to convey).
Limitations	• Cost to rent or arrange a venue for CPD activities, travel and other costs for facilitator and participants.

REMOTE SYNCHRONOUS

Description	CPD activities that take place when CPD facilitator and participant/s utilise a communication device (hardware) at the same time but from different locations. Examples are radio broadcasted CPD messages, live online meeting sessions, phone calls, etc.
Benefits	• Accessible to participants in remote areas if devices are available. • Opportunities for scale and cost reduction.
Suitable for	• Participants with basic digital literacy skills when offered through TV or radio. • Geographically dispersed CPD participants or with mobility-hindering disabilities.
Limitations	• The need for devices, e.g. TV, radio, computer, etc. • Limited opportunities for interactive or collaborative learning activities. • Limited opportunities for relationship building among participants. • Less flexibility in time, as everyone is expected to participate at the same time.

REMOTE ASYNCHRONOUS

Description	CPD activities where the CPD facilitator and CPD participants are not in the same place and/or at the same time, i.e. not delivered in person or in real time. Examples are the traditional homework and the provision of learning materials through a Learning Management System (LMS) or a Content Management System (CMS)[16], such as Wordpress, DropBox, Google Drive, OneDrive, etc.
Benefits	• Allows material to be stored, saved and re-used multiple times. • Provides CPD participants with the opportunity to learn at their own pace, anytime and from anywhere (depending also on learning design elements such as setting of deadlines). • Opportunities for scale and cost reduction.
Suitable for	• Busy adult learners eager to proceed with their professional development. • Participants with unstable internet connectivity and/or electricity, unable to participate in remote synchronous learning.
Limitations	• Engagement depends largely on the CPD participants' intrinsic motivation. • Fewer opportunities for social learning and community building.

Figure 11: An overview of the limitations and benefits of various CPD modalities

16 The difference between an LMS and a CMS is that with the latter the focus is on storing and sharing content, not so much on providing a full course experience.

Based on the balance between in-person and remote components in the CPD trajectory, and the pedagogical objectives of each component (such as the degree of flexibility and personalisation for participants), we distinguish various models. We have selected three common ones:

THE BLENDED FACE-TO-FACE MODEL[17]:

- Also called the "**face-to-face driver model**," as in-person activities come first and take up most of the time, and they drive the learning process. An example is a CPD trajectory where there are monthly in-person workshops with distance-based (online) exercises in between.
- However, some activities that are usually provided in-person, e.g. quizzes, readings and assessments are done remotely (mostly asynchronously).
- This model allows CPD participants and facilitators to use the in-person time for higher-order learning activities such as discussions and group projects, and playful activities that reinforce social and emotional learning.

THE BLENDED ONLINE MODEL[18]:

- Sometimes referred to as the "**online driver model**," because it is the ***online (or remote) synchronous*** learning activities that drive the learning process. By driving the learning process, we mean that these activities are the most important ones for participants to achieve the learning outcomes. An example is a CPD trajectory where you have weekly online seminars with an in-person event at the start and end of the trajectory.
- In addition, there are required in-person learning activities, e.g. classroom observation, PLCs, practice sessions, etc.

FLIPPED CLASSROOM MODEL

- A flipped classroom is a type of blended learning where participants are introduced to content asynchronously before the synchronous lesson and practise working through it during a synchronous session. The term flipped indicates that it is the reverse of the more common practice of introducing new content during a synchronous session, and let participants process and practise the content asynchronously, on their own.
- Many blended CPD trajectories follow the flipped classroom approach to learning. It is older than online learning though, as facilitators have been requesting participants to read articles or prepare otherwise for in-person sessions for a long time.
- A flipped CPD approach consists of a 3-stage process[xvii]— before, during and after; Each of these can be implemented through a different modality (Figure 6).

17 Commonwealth of Learning. (2018). Guide to Blended Learning. Retrieved from 2018_Cleveland-Innes-Wilton_Guide-to-Blended-Learning.pdf (col.org)
18 ibid

- **Before:** participants learn content independently asynchronously, for example via videos, simulations, multimedia, online or print materials and they can learn at their own pace and in their own time.
- **During**: participants discuss and collaborate in-person. For example, they create classroom activities, and practise, evaluate and revise content they have been engaged with during the 'before stage'.
- **After:** participants implement in their work context what they have learned with some peer support in the form of a PLC or online coaching that convenes synchronously on a regular basis.

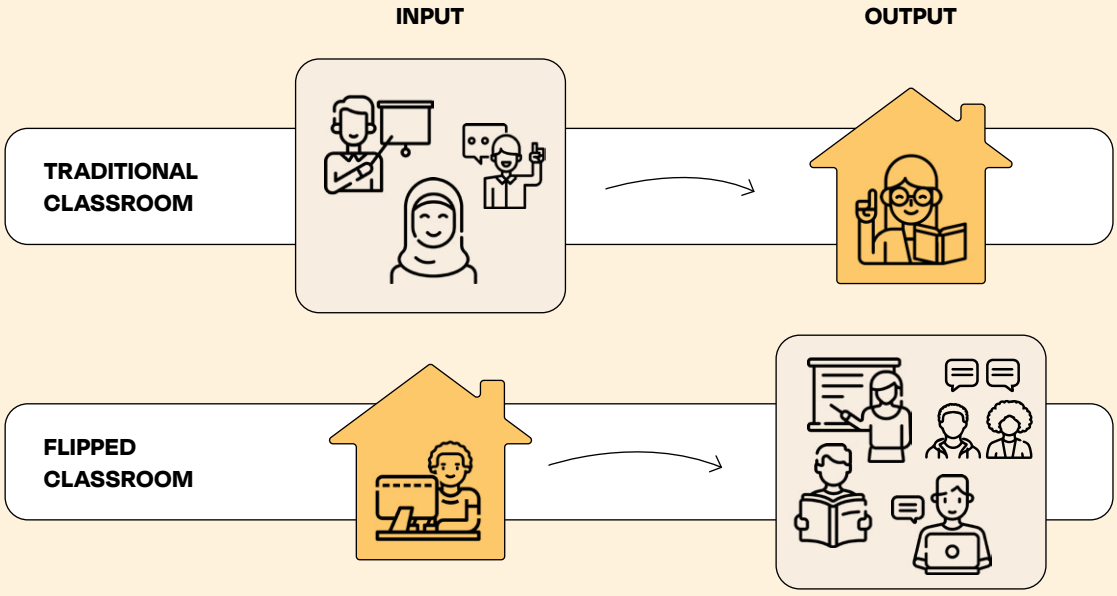


Figure 12: The flipped classroom approach

- A flipped classroom approach can be a powerful model, if applied well. Preparatory materials must be designed to prepare participants for engaging in synchronous (in-person) activities. Secondly, even if learning materials are of good quality, participants may not view or comprehend them. Thirdly, the design of the synchronous sessions requires more preparation to provide the interactive learning. Most importantly, the design needs to create a tight link (for example through bridging activities) between what participants do during the in-person session and what they do at home[xviii].

For each of these models, there are variations, depending on:

- Amount of flexibility in time: time required to attend synchronous sessions, versus not compulsory and making recordings available.
- Amount of flexibility in pace: self-paced, versus cohort-based with regular common deadlines.
- Amount of flexibility in learning outcomes: common learning outcomes and learning materials, versus a high degree of personalisation in setting learning outcomes and selecting learning materials.
- What technology is used by facilitators and participants (high / low-tech, etc.).

IN PRACTICE

HOW THE **UNIVERSITY OF RWANDA** AND **VVOB** CHOSE THEIR BLEND OF **IN-PERSON AND REMOTE CPD**

The University of Rwanda – College of Education (URCE), in partnership with VVOB – *education for development,* has been organising accredited Continuous Professional Development (CPD) programmes for school leaders and secondary teachers since 2018. These programmes were initially being offered through in-person sessions. Accelerated by the COVID-19 pandemic, a quick shift to remote learning took place. Building on the lessons learnt from remote CPD delivery, in 2022, the development task-team consisting of staff from URCE and VVOB, re-designed the blended delivery approach of the CPD programmes, responding to the following question:

WHICH DELIVERY APPROACH IS THE BEST FIT TO ACHIEVE OUR LEARNING OUTCOMES?

The underpinning pedagogy of the programmes is summarised in the following principles: competence-based learning, a sense of community and critical reflection.

Participants are requested to actively try-out, practise, share and reflect on course content. Together with the intended learning outcomes and available course content, the development task team considered these course principles in the delivery of the CPDs. Online learning is used to help participants explore new content, to gain understanding via interactive activities, and to start reflecting and linking this knowledge to the participants' own context. The **in-person sessions** are intended for activities that help apply the content at a deeper level. These sessions also provide an opportunity to close learning gaps identified by analysing the participants' online learning progress, to help participants to take the next step in their learning via reflection, peer learning and application, practise skills via exercises and role play, and to strengthen a sense of community.

Each CPD starts with an in-person orientation session to introduce participants to the purpose and delivery approach of the programme. Moreover, such in-person orientation sessions offer the opportunity to build relationships.

REFLECTION

Reflect on your blended CPD trajectory and think about the following:

- What will be delivered in person or remotely (or online)? Why?
- What will be delivered asynchronously/synchronously? Why?
- What will be facilitator-led/ participant-led? Why?
- What will be done self-paced as independent study? Why?

HOW TO CHOOSE THE RIGHT BLEND OF CPD

Blended CPD trajectories can be placed on a spectrum, with CPD trajectories with a minimal degree of remote activities on the one end, and almost fully remote, often online CPD trajectories, on the other end. Both the remote and in-person components should be meaningful, otherwise we call it in-person or remote CPD[19].

Between these extremes on the spectrum, there are a series of options and choices. This guide will help you make informed decisions about which blend to choose, while always keeping the focus on the CPD participant.

Finally, we believe that technology should be used to complement and not replace in-person CPD activities.[xix] Why is it important to still plan in-person activities in a CPD trajectory, and not move to fully online CPD trajectories?

Some reasons are:

- Easier to build a community of learners, which helps with learning.
- More opportunity for direct and immediate scaffolding and feedback, including through non-verbal communication.
- Easier to motivate participants and provide support, both technical and metacognitive support.
- Easier to practise skills such as teaching.
- Easier to organise collaborative learning activities.
- Easier for facilitators to monitor participants' learning informally.
- Opportunity for contextualised, individualised, classroom coaching.
- In-person activities can provide sustained outcomes by enabling more accountability and support.[xx]

19 Online Learning Consortium (OLC), 2015.

THE SPECIFIC BLEND OF IN-PERSON AND REMOTE CPD DEPENDS ON:

- Learning outcomes of the CPD: the in-person component might be larger if the focus is on practical skills and community building. The remote component could be stronger if the focus is on knowledge building and individual exploration.
- Cost considerations: the in-person component may include travel and accommodation costs. If the remote component is organised digitally, this may bring upfront costs in infrastructure, and recurring costs in electricity and data. High attrition rates, associated with remote/ online learning, reduce the cost effectiveness of a CPD trajectory.
- Characteristics of the target group: how easy is it to bring them together? How are their digital literacy skills? What are their self-regulation skills?
- Characteristics of the facilitators. Similar questions need to be asked as for the target group. For remote learning, additional technical support may be required.
- Duration of the trajectory: the longer the trajectory, the more important it is to invest in community building through in-person activities. However, with the right design, it is also possible to build online communities.

CREATING AND MAINTAINING ENGAGEMENT & MOTIVATION

When it comes to CPD, motivation is the driving force that helps participants to focus their attention on a learning outcome. Motivated participants "take initiative, show resilience, harness their curiosity, and care for and respect their work. They are equipped to orchestrate their learning journey"[xxi].

There is intrinsic and extrinsic motivation. Participants who are intrinsically motivated engage in the CPD trajectory because they get personal satisfaction from doing it. Research has identified 3 major determinants of intrinsic motivation: autonomy, competence, and relatedness.[20] Participants who are extrinsically motivated do the CPD trajectory because of an external reward such as a bonus, a promotion, a micro-credential or a certificate.

Some ways that the design of your blended CPD trajectory can sustain and strengthen the intrinsic motivation of your participants:

- Use short chunks of content interspersed with activities rather than long pieces of content.
- Plan for a variety of learning activities (e.g. case studies, quizzes, videos, writing exercises, etc.).
- Plan for personal interaction with participants, for example during in-person sessions, phone calls or a synchronous online session with a small group of participants.
- Provide opportunities for participants to relate the CPD content to their daily activities. For example, by guiding learners to share their experience and conduct research in their own context.
- Make it easy for participants to navigate the learning environment. Create an attractive (but simple) layout. Build in little appreciations of progress such as badges or other images appearing when a task is completed.
- Give participants options in the CPD trajectory that help them to fit the trajectory with their interests, needs, expertise or available time.
- Provide opportunities for social interaction, either during in-person activities (e.g. coffee breaks, fun activities) or during remote activities (check-ins, virtual coffee sessions, etc.).

20 Based on the self-determination theory of Ryan and Deci, see: http://selfdeterminationtheory.org/SDT/documents/1991_DeciVallerandPelletierRyan_EP.pdf

One way to engage CPD participants in blended CPD trajectories is to include aspects of **'gamification' or gamified learning,** e.g. using game elements and game design techniques in non-game contexts to change learning processes.[xxii] Such game elements include levels, badges and elements of competition, and may relate to individual or collaborative activities. Research has confirmed the potential of gamification, mainly with behavioural outcomes, and on motivation (especially when combining competition with collaboration)[xxiii].

Motivation is a requirement for participants' active engagement in the learning experience[xxiv]. Learning through play is actively engaging[xxv]. Being actively engaged also requires some level of self-direction. When participants are engaged in a CPD, they will also become more motivated. Engagement and motivation mutually reinforce each other. Engagement and motivation can be designed for, but it is also the role of the facilitator to nurture it.

DESIGNING FOR INCLUSION, GENDER RESPONSIVENESS AND DIVERSITY

When you are using an online learning environment such as a website or an LMS, the Web Content Accessibility Guides, or WCAG[21], are a useful instrument. Created by the World Wide Web Consortium (W3C), these guides help to make your online learning environment accessible for all your participants. It is a series of 12-13 guides, arranged in 4 categories.

Guides and tips relate to:

- How text is represented. For example, to provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.
- About the use of multimedia. For example, to provide captions and other alternatives for multimedia.
- Create content that can be presented in different ways, including by assistive technologies, without losing meaning.
- Use contrasting colours and colours that can be seen by people with colour blindness. Avoid using colour as the only visual means of conveying information but combine it with a difference in shape.
- Providing enough time to participants. For example, not including strict time settings for an activity unless it is necessary (such as in a synchronous online session).

Although the WCAG have been formulated for an online learning environment, some of the guides are useful when designing offline or even in-person activities.

A broader set of design guidelines is Universal Design for Learning (UDL). UDL is a framework to improve and optimise teaching and learning for all people based on scientific insights into how humans learn[22].

21 https://www.w3.org/WAI/standards-guides/wcag/ . An introduction to WCAG: https://resources.10to8.com/blog/wcag-compliance-at-10to8/
22 https://udlguidelines.cast.org/

An important aspect of inclusive design, both for in-person as for remote sessions, is differentiation. Differentiation means giving all participants the support they need to achieve the learning outcomes. There are different ways to differentiate (Figure 13).

TYPE OF DIFFERENTIATION	EXAMPLES IN A CPD TRAJECTORY
Differentiate the quantity or level of content and skills	Provide extra exercises for participants who wish more practice. Ask participants to do a pre-test and adapt CPD content based on results. Design activities that allow for linking content to practice.
Differentiate the type of learning activities	Design activities in such a way that they can be completed in different ways (e.g. writing an essay, developing a video, or creating a poster). Provide a menu of activities for participants to select from.
Differentiate the level of support that participants access	Include optional supporting activities such as synchronous Q&A sessions and support forums. Include optional opportunities for social interaction among participants.
Differentiate the learning outcome, encourage participants to set themselves appropriate challenges	Encourage participants to self-assess their level of competence and set personal goals for the learning trajectory. Create opportunities during the CPD trajectory for participants to reflect on the learning outcomes.

Figure 13: Types of differentiation in a CPD trajectory

Technology should be used to **complement** and **not replace** in-person CPD activities.

Step #3:

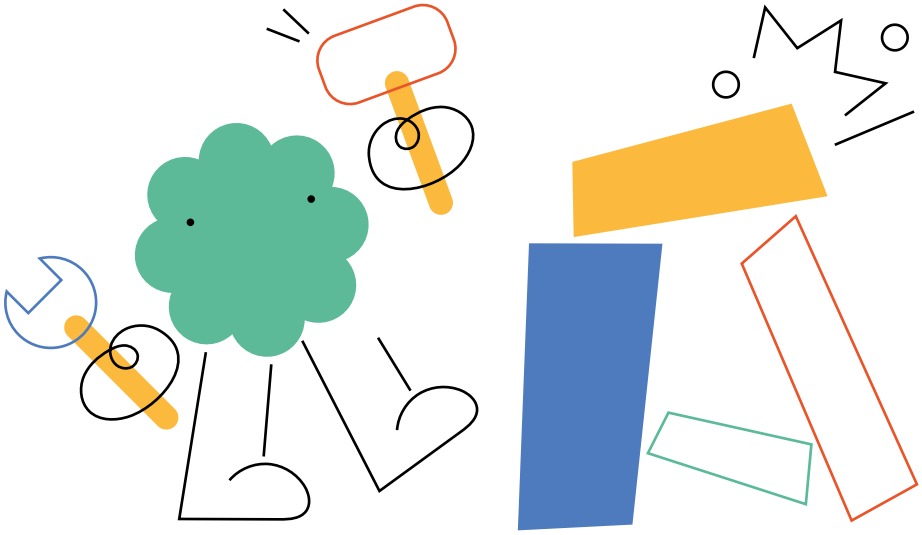
SELECT SUPPORTING TECHNOLOGIES AND DESIGN ACTIVITIES

DESIGNING CPD ACTIVITIES

A learning activity consists usually of something the participants do, something the facilitator does and mediating artefacts such as a presentation, flip charts, smartphones, etc.

The design of CPD activities and the selection of supportive technologies should take place at the same time, where available technologies inform what and how activities can be designed. This is valid for the learning type, CPD method and CPD modality that you have selected. For an in-person session, more technologies might be available and useful than for a remote session.

In a blended CPD trajectory, **bridging activities are often useful to link in-person and remote CPD activities within a CPD trajectory**[xxvi]. For example, an in-person session can start with a review of recent online activities. Conversely, adding materials or asking questions in a new online post should reference recent in-person activities.



IN PRACTICE

USING BRIDGING ACTIVITIES TO CREATE A **STAGGERED LEARNING APPROACH** | by VVOB

VVOB – *education for development* supports the University of Rwanda – College of Education (UR-CE) and Rwanda Basic Education Board (REB) to organise accredited blended CPD programmes for school leaders and school-based mentors.

The delivery method of these programmes is based on a thoughtful fusion of remote and in-person learning activities connected by bridging activities. This combination allows for a staggered learning approach based on the flipped classroom model. Each CPD programme starts with an **in-person orientation session** to introduce participants to the purpose and delivery approach of the programme.

Moreover, such in-person orientation sessions offer the opportunity to build relationships. After this introductory in-person session, participants engage in interactive **online course content**. In this component, participants gain knowledge and understanding of the topics of the CPD programme.

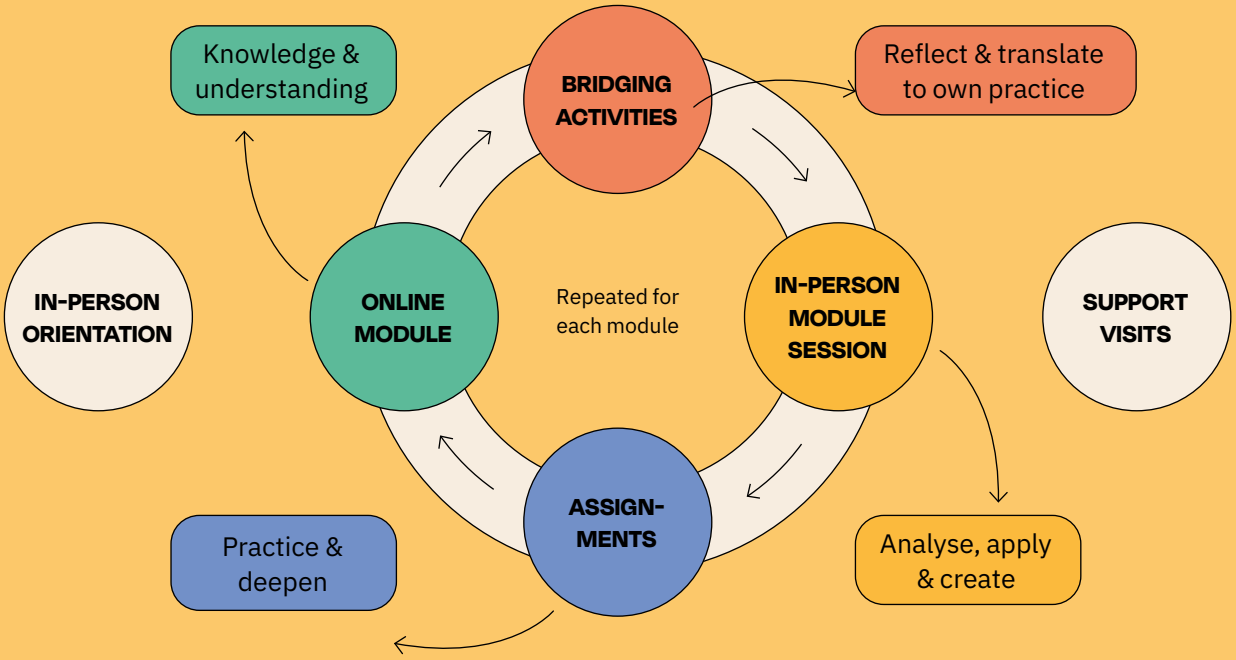
At the end of an online module, **bridging activities** are introduced to offer participants the opportunity to start reflecting on the content of the module and to translate the content to their work practice. After the online component of the module, participants go to an **in-person module session** to practise the content with their peers and to deepen their learning.

At the end of a module, participants complete **assignments** in which they analyse the content and apply it to their work practice. Twice during the programme, a **support visit** is organised to participants' work practice (school). The first visit is a coaching and support visit. The second visit is organised towards the end of the programme to assess the application of skills acquired.

An example of a staggered approach using bridging activities is the development of a CPD plan for the school. In Rwanda, school-based mentors have the responsibility for guiding CPD of teachers in the school, by creating a school CPD plan. In the CPD programme, school-based mentors learn to develop an effective CPD plan for their school. They do this step by step over each building block of the blended CPD programme:

1. **Online module:** school-based mentors learn how to identify and assess teachers' professional development needs.
2. **Bridging activity:** school-based mentors guide four teachers in their school to complete the CPD needs assessment tool.
3. **In-person session:** together with their peers, school-based mentors build a school CPD plan based on the needs of four teachers in their school.
4. **Assignment:** school-based mentors submit a full CPD plan for their school.

In short, the blended design of these CPD programmes allows scaffolding at each step in the learning of participants.



ONLINE MODULE

School-based mentors learn how to identify and assess teachers' professional development needs

BRIDGING ACTIVITIES

School-based mentors guide four teachers in their school to identify their CPD needs

IN-PERSON MODULE SESSION

Together with their peers, school-based mentors build a school CPD plan based on the needs of four teachers in their school

ASSIGNMENTS

School-based mentors submit a full CPD plan for their school

watch our video

Figure 14: Example of a staggered learning approach to blended CPD design

SELECTING SUPPORTING TECHNOLOGIES

There is a wide range of technologies to support the delivery of activities within a blended CPD trajectory, ranging from paper-based materials to high-tech options such as virtual and augmented reality technologies that allow for a complex simulation of the school context. In between there are many options. Which technology to select is primarily based on the availability of resources, your context and needs and those of participants, and the added value of technologies in relation to the CPD learning types and methods in your CPD trajectory.

Usually, the use of technology is to support the delivery of CPD activities and therefore technology is a support tool, secondary to the choice of pedagogies. Nevertheless, technology also can offer opportunities to innovate CPD trajectories, to rethink pedagogy and how to organise CPD trajectories. For example, widespread adoption of smartphones and social media has allowed for learning through short but regular WhatsApp messages, questions and videos.

However, in many places there are infrastructural limitations, and you need to lead with the technology available. Therefore, it is important during a needs analysis to identify what technologies participants have access to and are familiar with.

With technologies, we make a distinction in this guide between hardware, software, and platforms[xxvii].

- Hardware, which refers to the physical aspects of an electronic device, such as computers, laptops, radios, mobile phones, etc.
- Software/Apps are a set of instructions, data or programs used to operate computers or other electronic devices and execute specific tasks. Some examples[23] that are often used in blended CPD are Padlet, WordPress, Wikipedia, Mentimeter, etc.
- Platforms are groups of technologies that are used as a base upon which other applications, processes or technologies are developed. Examples are Microsoft Office, Google Apps for Education, Sunbird and Moodle.

When designing a learning environment for online or remote learning, an important consideration for CPD providers is the selection of the software and platform to use. Broadly, we can distinguish three possibilities:

- All participants use a Learning Management System (LMS) such as Moodle (which is free and open source); Google Classroom (free basic version, not open source) or Canvas (which is proprietary). An advantage of using an LMS is that participants and facilitators have everything in one digital place (learning materials, forums, synchronous sessions, assessments, quizzes, management of participants, etc.)
- All participants use a Content Management System (CMS) such as Wordpress (free), DropBox (free basic version), Google Drive or OneDrive (not free). As the name suggests, CMS functionalities focus on the management of content, and less on learning activities. Their functionalities are less broad than an LMS. The distinction between LMS and CMS has become blurred in recent years, as some CMS (such as Wordpress) have developed additional LMS-like functionalities (via plug-ins).
- All participants use the same collection of tools and software. In some cases, the preferred option can be that facilitators and participants decide upon a set of tools to use for the CPD trajectory, such as Google Drive for file storage, Facebook or Telegram for discussion and file sharing, Jitsi for meetings, etc.

23 Jane Hart has been keeping an updated overview of tools for blended and online learning. It is available on: https://www.toptools4learning.com/

A detailed discussion on the various LMS and CMS available is beyond the scope of this guide. They differ in user friendliness, copyright (on their source code), the range of activities, integration of multimedia, gamification possibilities, branching/ differentiation possibilities, analytics and reporting tools and of course pricing. In many cases, the choice of an LMS is done at the institutional level and is not directly relevant here.

On a final note, blended CPD providers have used both low-tech solutions such as radio and high-tech solutions such as videoconferencing to expand their programmes to new regions, connect teachers, and use data to improve and adapt their CPD trajectories. Moreover, technology's attributes can enhance the delivery of high-quality blended CPD. Data processing enables the provision of tailored support. Interactivity makes the CPD practical and relevant to teachers' needs. Multi-media and connectivity facilitate ongoing support available anytime, anywhere, and help teachers to stay focused.

When selecting technologies to support the delivery of CPD activities within a blended CPD trajectory, the following criteria can be applied:

- **Availability of resources**: from the analysis phase, you have a clear picture of the available resources for CPD facilitators and participants, their access to technologies and their technology competences, including attitudes toward technology and their technology skills.
    - Regarding technologies that can support remote/distance CPD, the overview of generations of distance education by Mary Burns[24] provides further insights into the availability of resources. Finally, be aware of data usage. Use audio and text instead of video. If you use video, opt for short, low-quality videos.
    - Inclusion goes beyond attending. Some people may find it more comfortable to learn and participate in an in-person session, but the opposite may be true for others.
- **Context and needs:** another relevant categorisation of technologies is the differentiation between 'robust' and 'fragile' technologies. A technology is considered 'robust' when it is commonplace and widespread enough to also reach the population in the margins. In addition to wide accessibility (both in terms of availability and affordability), other characteristics of robust technologies include the ease with which they can be set up and utilised (and fixed), and their scalability to large audiences. Fragile technologies are advanced technologies with high potential but that come with a risk that they vanish fast. Services or hardware can cease to work – e.g. because the company providing a technology goes bankrupt. Another risk is that they rely on layers of other technologies, i.e. high level of interconnectedness, e.g. Virtual Reality (VR) depends on VR headsets, computers with high processing power, etc.

REFLECTION

Which technologies are available for remote CPD?

- ✔ Print-based
- ✔ Audio-based, e.g. Broadcast Radio, Two-way radio, audio-conferencing and telephone
- ✔ Visually based, e.g. TV and video
- ✔ Multimedia-based, e.g. CDs, DVDs, VCDs and interactive multimedia
- ✔ Web-based, e.g. webinars, online sessions
- ✔ Mobile-based, e.g. Apps, podcasting

24 http://go.edc.org/07xd

IN PRACTICE

RADIO PROFESSIONAL DEVELOPMENT FOR TEACHERS IN UGANDA | by STiR Education

During COVID-19, STiR Education developed an approach to leverage its expertise, capacity and networks to support the Ministry of Education and Sports to address its emergency priorities. Connectivity and technological challenges presented significant barriers to delivering this curriculum online. We aimed to broadcast 30-minute radio sessions through up to 15 different radio stations across 32 districts. Radio is one of the longest serving and most accessible education technology in Uganda.

We launched a bi-weekly, radio-based continuous professional development programme (CPD) for teachers in 32 districts and 8 municipalities. This would involve:

- Production of a 30-minute lesson for all teachers across subjects and phases delivered over radio every two weeks.
- Use of evidence-based teaching strategies.
- Follow up support materials for school leaders and education managers.
- Weekly support calls to officials.
- Bi-weekly head teacher conference calls.
- Share audio and printed CPD content via WhatsApp.

WHAT WORKED

- Radio lessons motivated teachers and excited them about being resilient and supporting their learners.
- Radio built momentum and helped teachers in the subsequent return to classrooms because they had learned social emotional strategies.
- It promoted local ownership and support from district education officers.
- The shared recordings of the radio sessions helped many teachers to access the content.
- WhatsApp learning networks were used to collect feedback from teachers, and share success stories, challenges and learnings.
- Group phone conference calls helped continuing reflection meetings and increase resilience and coping with the pandemic.
- Follow-up support materials to support further learning, delivered via WhatsApp .

CHALLENGES

- Initially, many sessions were not broadcast on the agreed date or time, which risked disengaging teachers.
- Access to radio sessions varied between districts.
- There was limited follow-up on action plans by the teachers because the schools were shut down.
- Poor network connectivity presented challenges to our regular calls with school leaders and district officials.

LEARNINGS

- We need to be flexible in our programme design and delivery to adapt to using approaches that are relevant in the context.
- Blended use of radio, phone group coaching and WhatsApp increased the engagement of school leaders and teachers in professional development during the pandemic.
- Actively identify and reflect upon the challenges of remote delivery in offline contexts and use the reflections to iterate and improve.

watch our video

- **Added value:** an important question to ask during the technology selection process is “What is the purpose and added value? What is the expected outcome of using the technology?” A useful model to reflect on these questions is the **SAMR Model**.

SAMR stands for Substitution, Augmentation, Modification, and Redefinition (Figure 15). Blended CPD providers can use the SAMR Model to analyse its role in the learning process, e.g. is it substituting an in-person activity, is it enhancing the learning experience, or does it transform it to something new. Figure 16 provides an overview with examples of SAMR’s four degrees of technology integration.

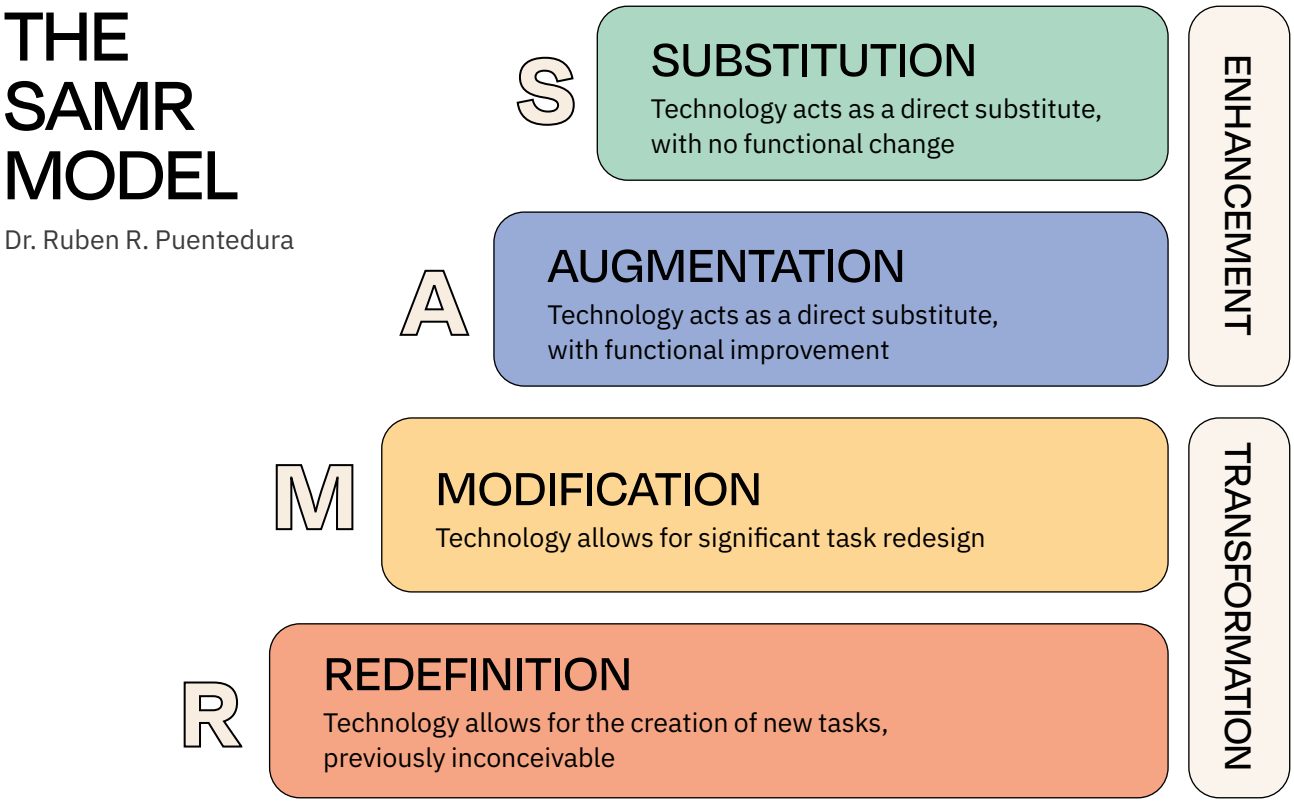


Figure 15: The SAMR Model (licensed under the CC Attribution-Share Alike 4.0 International license.)

Note that SAMR does not refer to the level of learning that is taking place. You can be using a "substitutive" technology in a higher order level (e.g. creating a poster using paper and crayons vs creating a poster using PowerPoint: this is substitution, but a higher order learning activity in Bloom's taxonomy) and you can use technology to redefine activities that don't have much learning value (e.g. an online game that is ill-linked to the learning outcomes). Also note, choosing a level relates to what you want to get out of the technology. For example, in some cases, substitution may be exactly what you want.

	ENHANCEMENT		TRANSFORMATION	
	SUBSTITUTION	AUGMENTATION	MODIFICATION	REDEFINITION
DESCRIPTION	A traditional CPD tool or method is being directly replaced or substituted by technology.	The technology is directly substituted for a traditional tool or method, but with significant enhancements to the learning experience.	Technology is implemented to alter the lesson design and impact the learning outcomes in a positive manner.	Technology redefines a traditional CPD activity in a way that would not be possible without the Technology, creating a new experience.
EXAMPLE	Printed versions of "Guides on 'Learning through Play'", are replaced by digital format.	Besides the "Guides on 'Learning through Play", participants receive a YouTube tutorial on the topic.	Participants use YouTube to research 'good practices' from around the globe of engaging students in a joyful learning environment.	Participants record a designed joyful playful activity and present it to the cohort for critique and feedback.
QUESTIONS	Do I need to substitute a learning activity or method with technology? What value or impact would that substitution have on the learning experience?	How can technology enhance my learning activities? Would that enhancement lead to more engagement, higher thinking, etc.?	How can technology alter the lesson design to attain better learning outcomes?	Which technology can help to provide participants with a unique, novel, constructive learning experience?

Figure 16: SAMR framework and examples

To address these questions and assess the criteria of availability of resources, context and needs as well as added value, we suggest two ideas that can help you make informed decisions about the choice of technologies.

IN PRACTICE

THE **VSO SCHOOLS APP** IN RWANDA

watch our video

In Rwanda, VSO is testing approaches to blended CPD for Early Childhood Education teachers to improve the use of play-based approaches to ECE. The approach combines digital content provided via the VSO Schools App with Communities of Practice and support from school-based mentors.

Tablets were purchased to test the approach. In the long term, a web-based version will be available building on the commitment of the Government of Rwanda to supply one laptop per teacher. However, laptops would reduce the opportunities for 'redefining' the approach and providing learners with opportunities to experience a 'unique, novel, constructive learning experience' for example by easily capturing and sharing photos/videos of learning.

The VSO Schools App provides digital interactive content for asynchronous self-study on learning through play for ECE teachers. The App allows for the use of text (with audio), photos and videos, quizzes, games and interactive tools such as image pairing and drag and drop exercises. After uploading content, learners can progress through the modules offline. An internet connection is required to upload data on progress to be tracked, and to use the chat function. Content for the App in Rwanda is structured in 13 modules. Also, teachers can upload and share materials and examples which creates opportunities for teacher portfolios.

VSO considered the local context and structural limitations when designing the approach to testing the App in the Rwandan context. The SAMR model was used to assess the added value of the App. It shows the approach represents an 'augmentation', as it replaces in-person approaches with an alternative way of learning. It also represents a 'modification', as learning outcomes can be improved through interactive and engaging learning experiences. There is also potential for the approach to 'redefine' approaches to CPD because of the function in the App for learners to engage in chat rooms and share examples directly through the App or use other Apps installed on the tablet to create a virtual CoP.

The approach requires strong data management to track learners' progress through the modules and knowledge acquisition (through pre and post module surveys). The App has an in-built data management function that allows for different levels of (secure) access. Progress tracing can be done in 'real-time' although this requires the devices to be frequently connected to the internet. Where connectivity is a challenge, VSO volunteers visit schools to 'tether' their tablet to the teachers' tablet to upload data.

IN PRACTICE

HOW **VSO** PREPARED FACILITATORS USING THE **SAMR MODEL**

VSO has been running home-based Early Childhood Education (ECE) centres in the Rohingya camps in Jamtoli, Cox's Bazar since 2018 and this programme was extended to host communities in 2020.

Most ECE facilitators are mothers and sisters from Rohingya and host communities who do not have any training. VSO worked with MESHGUIDES to develop a course which promotes a play-based ECE approach. After assessing ECE facilitators' educational background and access to digital devices and their experience of using technology, it was found that none of the facilitators had prior teaching experience. Only 10% of the facilitators had experience of using basic mobile phones.

On the one hand, ECE facilitators did not have confidence in using play-based teaching methods and needed a lot of support and training, on the other hand, logistically it was challenging for VSO teacher trainers and mentors to visit the camp regularly to deliver face to face training. Therefore, VSO considered an Edtech solution. All ECE facilitators were given a tablet preloaded with videos of songs, stories, and model lessons.

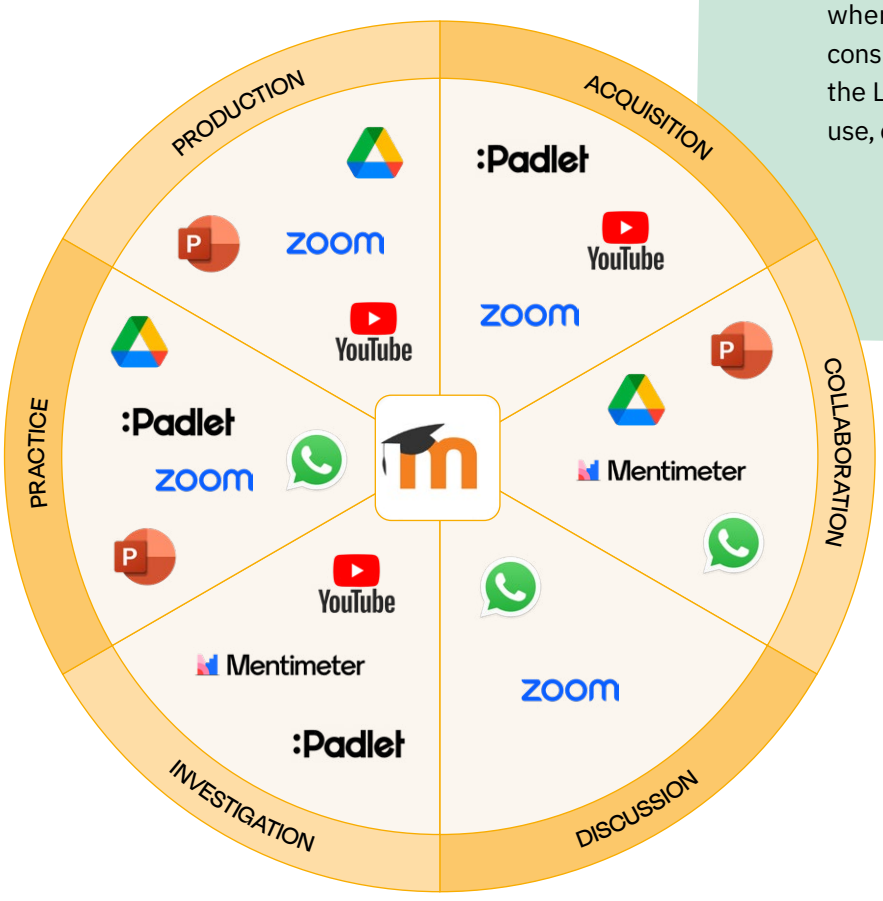
By applying the SAMR Model, VSO could adapt the teacher training as follows:

- **Substitution**: printed teacher guide on play-based ECE was replaced by a digital version.
- **Augmentation:** national volunteers produced a series of videos showing how to make play resources from locally available recycled/ reusable materials in local languages so that facilitators could watch videos and follow instructions to make teaching materials.
- **Modification:** watching videos from other countries, ECE facilitators identified used bamboo, recycled plastic bottles and scrap fabric to make play resources.

CREATE A TECHNOLOGY WHEEL

The creation of the technology wheel aims to align selected technologies with previously selected CPD learning types and CPD methods, or with levels in the SAMR model; and to ensure that there is a good fit. Drawing your technology wheel can be done individually or with peers on a sheet of paper, or digitally, with a word processor or any type of visualisation or publishing software.

In the example technology wheel in figure x, we zoom in on software and applications, and each section of the technology wheel is one of the six CPD learning types introduced on page 39. Software and applications that are available and accessible to CPD facilitators and participants are matched with the CPD learning types. Names and logos of the technologies can be inserted in the technology wheel for better visualisation.



NOTES AND TIPS:

- Technology wheels can be created for a variety of purposes, e.g. on applications within a Moodle environment, or zooming in on hardware.
- A technology can serve more than one CPD learning type and appear multiple times in a technology wheel.
- Rather than selecting a wide range of technology (as in the figure), it often makes sense to focus on a few technologies that can be used for several activities within a CPD trajectory. This will help to avoid confusion and overload among CPD facilitators and participants. In addition, when you are using an LMS, you may consider technologies which are native to the LMS for offline compatibility, mobile use, etc.

REFLECTION

- Review how you intend to use technology in your blended CPD trajectory. Can you assign the various technologies to the levels in the SAMR model? Could you envisage how technology could be applied when aiming for the other levels in the SAMR model?

DEVELOP A DATA MANAGEMENT PLAN

The selection of supporting technologies is linked to the data you (or software providers) will collect. A data management plan can be a useful instrument to discuss how you will deal with user data in your CPD trajectory[25].

A data management plan details what you will do with the data during and after your initiative to ensure that data are both accessible and secure. Your plan should treat issues like:

- Data collection: how much data will be collected, over what period will the data be collected, and who is responsible for data collection, management and security?
- Validation and cleaning: is the removal of personally identifiable information part of the cleaning process (especially of qualitative data)?
- Organisation and storage: how are you documenting and saving your data to be understandable and accessible by others, what file formats and naming conventions are you using, and what are your storage procedures to ensure that data are secure?
- Access: who has the rights to the data, how will data be shared, how will you protect personal data, and will reuse be allowed?
- Archiving: how long will data be stored, how will the data be destroyed when no longer needed, and how will data be made anonymous?

MATCH TECHNOLOGIES WITH CPD ACTIVITIES IN YOUR BLENDED CPD DESIGN MATRIX

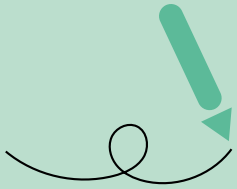
After designing CPD activities and creating a technology wheel, the CPD design matrix can be populated with technologies for each of the CPD activities within the trajectory. It is important to be thoughtful and purpose-driven when matching goals, activities, and technologies.

Returning to the CPD design matrix (Figure 5), you can find for instance that:

- CPD activity 1: for acquisition and investigation, a remote synchronous presentation is foreseen and the Big Blue Button plug-in in Moodle was selected for this activity.
- CPD activity 2: for collaboration, a two-day face-to-face workshop is foreseen as an activity. During the session, a Wiki plug-in in Moodle is used to support a collaborative writing exercise in groups.
- CPD activity 3: for discussion and review of the draft groupwork, an asynchronous online discussion was initiated, embedded within the Moodle LMS.

25 Some examples: https://intelliboard.net; https://visualizeyourlearning.com/2020/04/14/4-types-of-data-to-collect-during-distance-learning/; https://www.edu-links.org/sites/default/files/media/file/Measuring%20Impact%20and%20Outcomes_Final_01.20.2021-508%20%281%29.pdf

NOTE ON DEVELOPING YOUR CONTENT AND ASSESSMENT TOOLS



Spending enough time on the design of your CPD trajectory with your team and partners will save you time during the development phase. Starting from your completed CPD Design Matrix, you can now start with developing content, activities and assessment for your CPD.

If you are adapting an existing CPD trajectory, you can probably start from existing content and activities. In other cases, you may need to start afresh.

Some things to keep in mind:

- Regularly review your learning outcomes while developing, to avoid developing too much or irrelevant content and activities. Your assessment should also be linked to the achievement of learning outcomes.
- It is worthwhile to consider different options of content development. A wealth of openly licensed high-quality learning materials is available[26] and may save you a lot of time. In some cases, participants can help you to identify content by letting them research information, develop a case study, record a video, etc.
- You may want to have a mechanism in place to ensure that content is of high quality. Perhaps, you can find an external expert or colleague to review the content. You may explore to pilot the CPD trajectory with a small group of participants. Finally, perfect is the enemy of the good. Make sure you collect feedback and regularly plan to review the content with your team.
- Formative (and sometimes summative) assessment is an important part of a CPD trajectory. For the remote component, you may have to design for assessment explicitly, as opportunities for facilitators to observe whether participants are learning and for participants to signal any challenges are more limited than in an in-person setting. Such explicit design of formative assessment may include short quizzes with (automated) feedback, short polls, providing regular feedback, sending regular reminders or motivational messages and organising occasional short check-ins (by phone) with participants.
- Consider adopting an iterative approach to the development of CPD materials, moving between review, adjust, review, test, rework, etc. This cycle can be used for each content "element", i.e. the blueprint, video scripts, modules, assignment instructions, quizzes, etc.

26 A useful starting point is https://www.oercommons.org/

☑ CHECKLIST DESIGN AND DEVELOP

BEFORE YOU START

- ☐ Have you set up a design team?
- ☐ Have you planned for your design phase including meetings for brainstorming, discussion, planning and designing all components?
- ☐ Have you reviewed the outcomes of the analysis?
- ☐ Have you planned for the development phase including time (if relevant) for multimedia development, identifying existing resources, translation and validation?
- ☐ Have you made a data management plan that includes information on data collection, organisation and storage, access, anonymisation and archiving.

CREATING YOUR CPD DESIGN MATRIX

- ☐ Have you discussed and agreed with your team on CPD learning types and methods?
- ☐ Have you linked learning outcomes to segments and learning types?
- ☐ Have you discussed and agreed on a blend of CPD modalities?
- ☐ Have you checked that the selected CPD methods and modalities are suitable for your context?
- ☐ Have you ensured a variety of CPD activities including active and multi-modal teaching techniques (e.g. small group discussion, case study, game, podcast)?
- ☐ Have you considered multiple ways for participants to participate in CPD activities (e.g. online, in-person)?
- ☐ Have you linked learning experiences to your participants' profiles, considering diversity, inclusion and gender-responsiveness?
- ☐ Have you designed activities to accommodate participants' interests and goals?
- ☐ Have you considered the cost implications of the selected technology for participants and facilitators?
- ☐ Have you planned for activities that allow for collaboration?

REFLECTIONS

☑ CHECKLIST DESIGN AND DEVELOP

SELECTING SUPPORTIVE TECHNOLOGIES

- ☐ Have you selected technologies for different learning types using a technology wheel?
- ☐ Have you checked if selected technologies are suitable for your context?
- ☐ Have you aligned selected technologies with CPD activities?
- ☐ Have you considered data privacy and protection issues when selecting technology?

DEVELOPING CONTENT AND ASSESSMENT TOOLS

- ☐ Did you review learning outcomes before developing your content?
- ☐ Have you considered different options of content development?
- ☐ Do you have a mechanism in place to ensure content is of high quality?
- ☐ Have you discussed with your team and agreed on assessment tools?
- ☐ Have you considered multiple ways to present content to participants (audio – video – text)?
- ☐ Have you offered participants multiple ways to demonstrate newly learned knowledge, skills and attitudes?

MOTIVATION & ENGAGEMENT

- ☐ Have you motivated participants to participate in the CPD by targeting their intrinsic and extrinsic motivation?
- ☐ Have you made the learning outcomes clear to your participants?
- ☐ Have your activities and content built on your participants' experience?
- ☐ Have you linked the learning experiences to your participants' professional context?
- ☐ Have you considered integrating aspects of play-based learning in the CPD design?
- ☐ Have you provided opportunities for participants to collaborate and participate actively in the sessions?

REFLECTIONS

GENDER RESPONSIVENESS, DIVERSITY AND INCLUSION

- [ ] Have you created a welcoming and respectful learning environment for all participants?
- [ ] Have you created channels or safe spaces for facilitators or participants to raise issues related to gender and inclusion?
- [ ] Have you provided participants with information on how to access support structures?
- [ ] Have you communicated clear expectations for the CPD?
- [ ] Have you provided natural supports for learning including technology to enhance opportunities for all participants?
- [ ] Have you used methods that consider diverse backgrounds, abilities and experience?
- [ ] Have you designed for activities which encourage participants to develop peer learning and study groups to promote interaction?

SCALABILITY, SUSTAINABILITY AND COST EFFECTIVENESS

- [ ] Have you considered the impact of your design decisions on the scalability, sustainability and cost of your CPD?
- [ ] Have you used the Education Scalability Checklist to assess the scalability of the CPD design?

REFLECTION

- What have been the main challenges during your design and development phase? How did you address them?
- Are there peers you can contact who have done similar work and whom you can talk with and learn from about this phase?

REFLECTIONS

Phase 3

IMPLEMENT

Step #1

PREPARE FACILITATORS AND PARTICIPANTS

Step #2

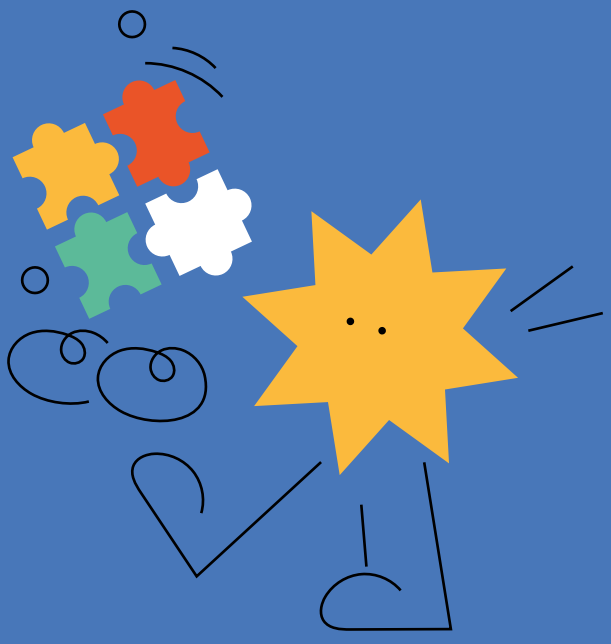
ORGANISE THE LEARNING ENVIRONMENT

Step #3

RUN A PILOT AND IMPLEMENT THE CPD TRAJECTORY

OVERVIEW

The Implementation Phase starts when the design team has finalised the design and development of the blended CPD trajectory and is ready to pilot and implement the CPD trajectory. With the delivery of blended CPD, you may need to pay extra attention to the preparation of facilitators and participants and the organisation of the learning environment. Before implementing, it is also recommended to do a dry run and run a pilot.



Step #1:

PREPARE FACILITATORS AND PARTICIPANTS

PREPARING CPD FACILITATORS

Having competent and motivated facilitators is an important factor for successful CPD. While CPD facilitators might be members of the CPD trajectory design team and have insight into the CPD trajectory design and content, this is not always the case.

In a blended trajectory, facilitators need to be prepared to facilitate both the in-person and the remote components. Although you could consider having different facilitators for both components, it is generally recommended to have the same facilitators for both components to ensure coherence, continuity and a sense of community. For instance, by analysing remote learning progress, the facilitator can identify learning gaps and remediate those during an in-person component.

Nevertheless, facilitating an in-person session is different from facilitating a remote session. Some areas where both might differ are:

- Need for digital literacy of facilitators so they can support participants (e.g. with signing in, accessing resources, posting comments, etc.) for digital learning.
- Accessing, analysing, and learning from CPD monitoring data.
- Facilitating in an asynchronous learning environment (e.g. facilitating forum discussions).
- Personal time management.
- Providing participant support.
- Promoting interaction and collaboration.
- Motivating and engaging participants.
- Bridging between in-person and remote CPD activities.

Therefore, a first step in the implementation phase is to make sure that your facilitators are up to the task. If you are hiring facilitators, you can consider the above aspects during recruitment.

Make sure you discuss with facilitators what you expect of them and agree on clearly defined expectations. A list or rubric can be a useful tool to develop and communicate expectations.

Based on the information from facilitators, you can determine how much additional coaching and mentoring support you to need to give facilitators for ongoing technological and pedagogical support for the entire duration of the CPD trajectory. Facilitators can be provided with a wide range of support activities in preparation of facilitating the CPD trajectory depending on their context e.g. hard copy self-study guide, self-paced online learning course, blended CPD trajectory led by master trainer, video demos, etc.

IN PRACTICE

PREPARING FACILITATORS TO TRANSFER THEIR TEACHING TO AN **ONLINE MODALITY**

by Plan International – Jordan

In this project from Plan International, facilitators of an existing project had to quickly adapt their teaching approach and curriculum to suit remote learning due to the COVID-19 crisis. In total, 50 to 60 facilitators of informal and non-formal programmes were targeted, who were training adolescents and youth aged 12 to 24 years old.

To support these facilitators with the switch to remote facilitation, a phased approached was used, informed by contextual factors:

- An emergency phase: daily intensive communication with facilitators to provide immediate support using Zoom and Teams for synchronous training and WhatsApp for both synchronous and asynchronous training.
- A less intensive phase: a more structured modality during which facilitators meet synchronously 3 times/week, with a shift towards self-study by providing guides and manuals.
- A blended (in-person/remote) phase: facilitators meet once a week in-person, combined with asynchronous learning.

During these three phases, education specialists from Plan International set up a WhatsApp group with facilitators to:

- Create a sense of presence to support facilitators in the shift to remote facilitation.
- Give facilitators ample opportunities to ask questions about using digital tools.
- Build rapport and motivation with facilitators.
- Provide both asynchronous and synchronous support to facilitators to cater for facilitators with weak connectivity.

PREPARING YOUR PARTICIPANTS

During the analyse and identify phase, information was collected to understand your participants. This information helps to determine how to prepare participants for the blended CPD trajectory.

The objective of this step is to ensure that participants are well-informed, prepared and well-equipped, including being familiar with the technologies and having the skills to complete all components of the CPD trajectory. For many participants, it may be their first time participating in a blended CPD trajectory. If the remote part is organised online, a **digital literacy training for online learning** can be organised. Such digital literacy training can either be organised in-person or blended, depending on your context.

Next to a digital literacy training, an **orientation session** is recommended that includes:

- The overview of the course content and materials including learning outcomes, activities, and assessment modalities.
- Expectations that the provider has about participants (e.g. in terms of time investment, digital skills, participation in activities, collaboration) and what participants can expect from the provider (e.g. available support, access to resources). Agreeing on expectations for both parties explicitly helps to avoid later misunderstandings and frustration.
- Tips and tricks for being successful in blended CPD trajectories. Some areas you may touch upon are:
  - How to plan your learning and meet deadlines;
  - How to communicate and collaborate with your peers;
  - How to stay motivated throughout the trajectory;
  - How to optimally use the time during in-person sessions;
  - How participants can help each other to succeed.

If feasible, it is useful to organise such an orientation session in-person to build a sense of community among participants and between participants and their facilitators from the onset.

IN PRACTICE

A BLENDED APPROACH TO **SUPPORT SCHOOL READINESS** | by Pratham

Pratham has been working on the capacity-building of district-level resource groups (trainers) in Maharashtra in the western peninsular region of India on a school readiness campaign to engage parents, particularly mothers, in preparing their children to enter grade one.

A state-level resource group (SRG) was created which trained district-level resource groups to train schoolteachers on the school readiness campaign. More than 200,000 mothers' groups were formed during this campaign and supported by schoolteachers through a blended approach which consisted of several components:

- "Idea videos" as well as paper-based activity cards, called "idea cards," with demonstrations and explanations of play-based activities in local languages.
- These idea videos are further disseminated to the schoolteachers and shared via WhatsApp messages to mothers' groups
- Mothers meet weekly in groups to watch short video clips with a demonstration of an activity. They receive instructions for the weekly play-based activity, discuss experiences, and give feedback.
- Upon request, mothers' groups also receive some practical messages (e.g., simple tutorials) to enhance digital literacy (e.g., how to use YouTube to find information such as a rhyme or songs in local language).
- Mothers individually spend at least one hour a week doing an early childhood education play-based activity with their child.
- Pratham staff, schoolteachers and volunteers maintain the regular running of the programme by visiting mother groups and providing support via WhatsApp and radio programme broadcasts.

In a second initiative, Pratham supported the Capacity Building of Master Trainers of Himachal Pradesh Pre-Primary Programme (Government and Pratham Partnership initiative) through technical support on content, systems, monitoring, and more. This work continued even through the challenges posed by the Covid-19 pandemic.

Step # 2:

ORGANISE THE LEARNING ENVIRONMENT

The next step is to organise the learning environment, making sure that it is conducive to learning, easy to access and user friendly for facilitator and participants.

You need to set up the learning environment for the CPD activities within a trajectory, both the in-person and remote activities, integrating complimentary communication channels between the CPD facilitators and participants. This can include any of the following:

- Administrative services for enrolment/ registration, advising/support e.g. online registration form
- ICT services for support, e.g. helpline
- Radio broadcast schedule or TV programming schedule
- Systems for quality assurance e.g. LMS participation data
- Curriculum/content delivery e.g. LMS, website, as well as applications, plugins, software
- Additional communication channels (e.g. WhatsApp)
- Physical environment for in-person sessions e.g. classroom, projector, projector screen, blackboard or whiteboard, pens, and other audio-visual equipment

Before rolling out the CPD trajectory it is essential to enrol participants and make sure **participant support** is in place for the entire duration of the CPD trajectory. Some guidelines on providing support:

- It is generally better to provide too much support than too little.
- Support can be provided broadly in three ways: by interaction with content, with peers and with the facilitator. The more support can be provided by interactions with content and peers, the better, and the lower the time burden on the facilitator(s).
- Support through interaction with content includes automated feedback, providing worked examples, providing "how to" explainer videos, making a list of "Frequently Asked Questions".
- Support through interaction with peers includes encouraging participants to help each other, and provide spaces for that (e.g. time during sessions, a forum), designing collaborative activities, giving some participants a role as "champion" or "tutor" to assist others with certain elements.
- Support by facilitators can include written feedback on assignments, responses in forums, audio or video messages and synchronous or in-person Q&A sessions. In some cases, it might be useful to split support for the CPD skills and technical support. For the latter, installing a (phone) helpdesk can be a useful instrument, particularly in areas with low internet connectivity.
- Consider that participants may require support beyond the mere CPD content or technical aspects, especially if a big part of the CPD trajectory is offered remotely. Asking facilitators to check in occasionally with participants (via a short phone call) can be very useful to support participants' wellbeing and pick up any signals of lower motivation.

A **blended CPD** trajectory does not require the same competences from facilitators as when facilitating an **in-person** trajectory.

REFLECTION

- It is essential to make sure that you have a plan B if you are using technical solutions such as platforms that might not be accessible due to power outages, internet connectivity issues, etc. Identify possible challenges with the learning environment for your blended CPD trajectory and formulate a plan B for each challenge.

IN PRACTICE

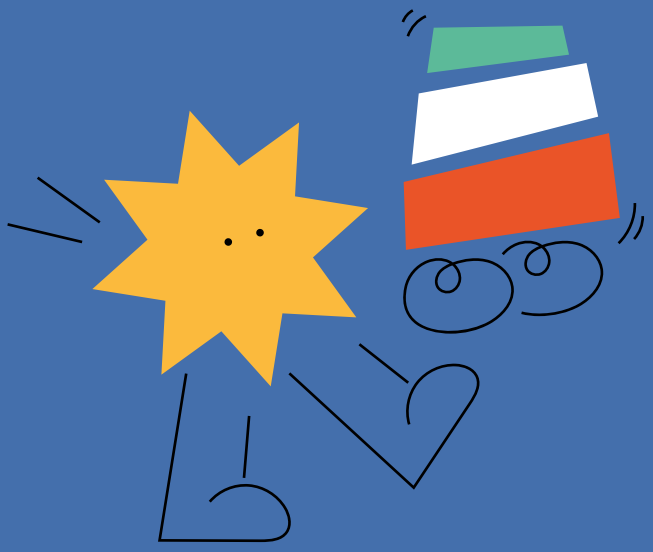
EXAMPLE OF A BLENDED **INITIAL TEACHER TRAINING (ITT)** APPROACH FOR WOMEN IN RURAL SIERRA LEONE BY **PLAN INTERNATIONAL** AND **OPEN UNIVERSITY**

The Learning Assistant Programme in Sierra Leone emerged from the GATE-GEC project, funded by UK aid through the Foreign, Commonwealth and Development Office's (FCDO) Girls' Education Challenge.

GATE-GEC aimed to support marginalised girls and children with disabilities in primary and junior secondary schools in Sierra Leone to attend school, reach their full learning potential, learn in a safe and inclusive environment, and successfully transition to further education and beyond. In Sierra Leone, only 27% of teachers at primary level and 14% at secondary level are female; this has immediate consequences on girls' enrolment, retention and achievement as well as school culture, with longer-term impact on girls' aspirations, safety in school and job prospects.

This programme was designed to support young women, who had not previously completed their own primary education, through their professionalisation to qualify as primary school teachers. The programme was delivered through a partnership with Plan International, Open University, the Teaching Services Commission and initial teacher training providers within Sierra Leone. The project currently has 483 graduates from two cohorts; a third cohort of 228 teachers have been trained and sat their NCTVA teacher qualification exams at the end of 2021. Participants initially worked as Learning Assistants in schools within their local communities, undertaking a practical work placement and engaged in a distance learning programme (Maths and English) supported by a tutor, before sitting their entrance examinations for Initial Teacher Training Colleges (ITTCs).

This model is not an example of blended continuous professional development per se, it is a blended model of initial teacher training. An initial work placement is accompanied by a foundational literacy and numeracy skills development programme. After passing their ITTC entrance exams, participants begin the distance model of ITT training. The model requires a combination of face-to-face mentoring and support from Programme Study Mentors who visit the teachers throughout their school-based placements, ensuring that participants are receiving appropriate support from head teachers in the school setting with access to relevant teacher training materials.



Materials for distance learning included paper-based learning materials and the use of digital technology in the form of tablet-based teacher training modules. The tablets allow trainees to access digital content in the form of ITT modules including literacy, numeracy, child protection, safeguarding and inclusive pedagogy and others via a mobile Moodle application. This mitigates internet connectivity issues within rural areas in Sierra Leone, with content updates and maintenance accessed by the trainees periodically while visiting an area with connectivity and when attending face-to-face training. In additional to the distance learning and school-based training, trainees met for face-to face training to encourage reflective practice and enable participants to form regional communities of practice.

The programme was adapted throughout the Covid-19 pandemic, with newly-qualified teachers trained to support vulnerable girls and children with disabilities in their localities during school closures, providing telephone-based home learning, child welfare and protection.

FOR FURTHER INFORMATION:

www.open.ac.uk/about/international-development/projects-and-programmes/gec-sl-girls%E2%80%99-education-challenge-programme-sierra-leone

Step #3:

ORGANISE A DRY RUN, PILOT AND IMPLEMENT THE CPD TRAJECTORY

It is advised to organise a dry run and pilot before implementing the blended CPD trajectory.

A **dry run** involves talking through the various steps of the blended CPD trajectory with the facilitators. This helps to identify trouble spots, discover unclear sections, and get a better understanding of how everything fits together. It is a great way to troubleshoot potential challenges before running a pilot with actual participants.

Before rolling out the CPD trajectory on a large scale, it is essential to run a **pilot** as it can provide useful information about the real-world impact of the CPD trajectory. In a pilot, a sample of your target audience participates in the CPD trajectory, or parts of it. A sample can be representative or purposive, if you want to focus on the experience of certain groups of participants.

Special attention during a pilot can go to evaluating potential issues with diversity, inclusion and gender, to make sure that, when the blended CPD is implemented at full scale, all participants can participate in and complete the CPD. If that is not the case, barriers for participation in the CPD trajectory can be researched, and solutions to overcome these barriers should be deployed before full implementation.

A pilot is preferably organised in an area and for a group that is representative for the implementation group (or in circumstances that are more challenging than average). For example, running a pilot in an urban area may not be a good idea if the CPD trajectory will be predominantly implemented in rural areas.

Evaluation data can be collected during a pilot from facilitators and participants e.g. through observation, feedback forms, user-experience assessments, self-reflection tools, journals or focus groups. Such data can be used to evaluate the reaction of participants to the CPD activities and their learning. Take care to disaggregate feedback based on factors such as age, sex or disability to ensure the needs of various groups are considered. The information from the pilot should be used to improve the CPD trajectory.

IN PRACTICE

HOW **VVOB IN VIETNAM** ORGANISED A DRY RUN TO **IMPROVE THE CPD TRAJECTORY**

In Vietnam, VVOB works in close partnership with the Ministry of Education on strengthening blended learning approaches with teachers and school leaders. Through a blended CPD trajectory that embeds play-based learning approaches, school leaders and teachers are trained to provide responsive and engaging learning experiences to their learners.

The blended CPD trajectory starts with a Digital Literacy course to ensure that all participants have the required digital knowledge, skills, and tools. This Digital Literacy course was in-person, tailormade for this trajectory and addresses both general digital literacy as well as programme-specific content with a focus on Moodle, as this is the main course platform. The course takes 1.5 days to complete.

As this was a newly developed course, VVOB decided to organise both a dry run and a pilot. The dry run consisted of a run of the complete course, with all the course facilitators present to go through the course with a group of learners composed of VVOB staff and focal points of the Ministry of Education and Training. At the end of the course, all participants of the dry run shared their feedback on the content of the course, the design of the activities and the facilitation methods.

After this dry run, there were still a few uncertainties about the practical organisation of the course with many learners in one room (70-100 people), all needing access to Wi-Fi and personal support. Therefore, a pilot of two cohorts was conducted with the target group of teachers in one of the target provinces. This pilot allowed VVOB to analyse organisational challenges and find ways to solve these challenges. Both VVOB staff and the course participants shared their feedback after the pilot. The focus of the pilot was more on the organisation of the course, but feedback on content, facilitation, methods and learning outcomes was also collected.

Both the dry run and the pilot contributed to a stronger course. Nevertheless, VVOB opted to take an iterative approach throughout the whole course cycle and kept organising feedback moments with the facilitators after every cohort to finetune the course.

watch our video

IN PRACTICE

IDENTIFYING BLENDED CPD DELIVERY IMPROVEMENT ACTIONS BY **PILOTING A PLAY-BASED TEACHING PROJECT** | by BRAC IED

BRAC Institute of Educational Development (BRAC IED) has implemented the "Champion Teachers" initiative that empowers teachers by enhancing their knowledge and skills in play pedagogy.

The Champion Teachers initiative used a blended design. A fully in-person modality would have been too expensive and would not have been feasible, as some schools are located in remote regions.

The training is centred around four broad areas: play and play pedagogy; well-being and teacher-student relationship; utilisation of available space and materials to apply play pedagogy in school compounds; and play-based lesson plan. Teachers are equipped with the required skills and knowledge to integrate play-based pedagogy in lessons and facilitate active participation by students.

25 teachers were selected for the piloting of the intervention. A 5-day virtual training session was designed for the teachers to ensure the effectiveness and successful implementation of the intervention. Following this training, supportive meetings were conducted face-to-face and online. After the completion of the training, teachers went on to apply play-based pedagogy in the classrooms for approximately 2 months as a piloting phase.

The initial synchronous online sessions indicated that some teachers were not actively participating and needed more guidance. The wide use of smartphones played a crucial role to overcome this problem. Teachers were given SIM cards of carriers with strong network coverage and internet packages to avoid disruptions during the sessions. Field managers with content team members have been assigned to ensure proper communication, accessibility and guidance is in place to encourage participation and monitor implementation.

Based on the outcome of this piloting, the design will be modified as needed. In 2023, a larger group of teachers will participate in blended CPD to increase their skills to incorporate play-based pedagogy in classrooms.

KEEPING PARTICIPANTS MOTIVATED AND ENGAGED

An important element during implementation is to make sure participants stay engaged and motivated. If not, they are less likely to learn much and complete the trajectory successfully. In blended CPD with a large remote component, reduced motivation may lead to lower engagement levels resulting in lower learning or dropping out.

While engagement and motivation can be designed for, it is also the role of the facilitator to nurture them.

Some ways that the implementation of a blended CPD trajectory can sustain and strengthen the intrinsic motivation of participants are:

- Ensuring timely reaction to questions from participants[xxviii]. Thank them for their questions and stimulate interaction by asking follow-up questions or inviting other participants to join the discussion.
- Giving participants agency in what and how they learn and providing opportunities to link the learning content to their context.
- Acknowledging input from participants (e.g. asking a follow-up question in a forum activity).
- Using a variety of CPD methods, combining individual work, facilitator-led activities, large group and small group activities.
- Providing opportunities to participants to collaborate and interact with other participants and facilitators.
- Gamification, which is "the use of game design elements in non-game contexts", has been shown to improve motivation of participants, particularly with behavioural learning outcomes[xxix].
- Regularly posting a summary of what has been done in the course, weaving together content and participants' inputs.

Participants can be extrinsically motivated by rewards or recognition for taking part in the CPD activity:

- Link reward systems to the achievement of learning outcomes and the quality of engagements, rather than the quantity. So, rather than rewarding for attendance or the number of contributions, try to reward for submitting a report, or the quality of contributions.
- Provide credit to participants for succeeding in the in-person and the remote part of the CPD trajectory.
- Consider awarding rewards or recognition to teams of participants to promote collaboration.

Using a combination of extrinsic and intrinsic motivators proves to be most effective to keep participants engaged and motivated.

IN PRACTICE

HOW **VVOB IN SOUTH AFRICA** KEPT PARTICIPANTS IN THE BLENDED CPD TRAJECTORY MOTIVATED AND ENGAGED

watch our video

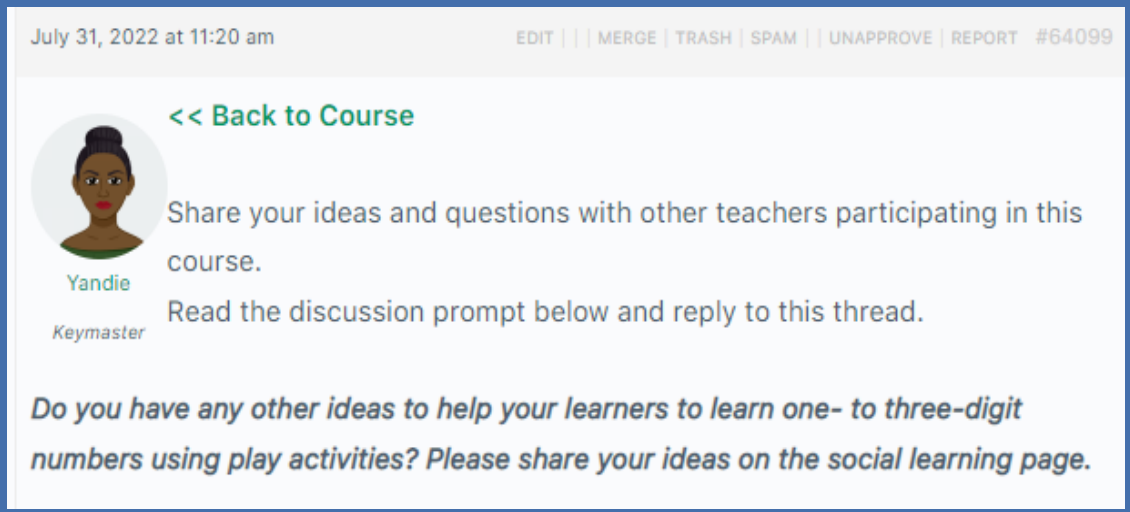
Teaching and Learning Foundational Mathematics Through Play for Grade R-3 Educators is a pilot project that targets 1000 Foundation Phase educators from 250 schools across 4 districts in KwaZulu Natal (South Africa).

The project, implemented by VVOB in South Africa, aims at enhancing educators' classroom practice in the teaching of foundation phase mathematics by integrating a play-based approach. To achieve this, the project tests the effectiveness of two modalities (synchronous/blended and asynchronous /remote CPD) for educators' professional development.

Central to the approach in both synchronous and asynchronous modalities is to build a community of learning.

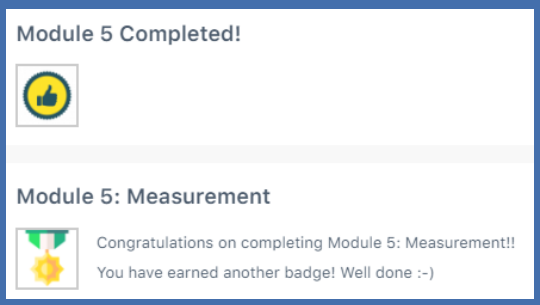
Key features are:

- **SOCIAL LEARNING PLATFORM**
  A needs assessment was conducted which showed limited exposure to online learning with educators. The decision was made to include the Social Learning Platform (SLP) in the LMS to stimulate content-related engagements among educators for augmented knowledge acquisition and link the course content to classroom practice using Learning through Play (LtP). PLC prompts were integrated into course modules to stimulate and encourage peer learning via the SLP.



- **PEER AND COMMUNITY RECOGNITION**

  In-course and Social Learning Platform motivation is promoted through the "Wall of Fame", recognition and celebrations for educators that engage meaningfully and share resources and practice. Badges and certificates of completion serve as a motivation.



- **WEEKLY WHATSAPP PROMPTS**

  During the face-to-face orientation sessions, WhatsApp groups of local groups of teachers were established. The groups were aimed at encouraging educators to participate in the course and engage with others via the Social Learning Platform. All prompts focused on directing teachers to the course platform.

- **DELIVERY AND UNPACKING OF THE MINI TOOLKIT**

  Each educator received a toolkit with resources and manipulatives for the classroom. To motivate them to use the toolkit, they had to unpack it and perform an activity that aligns with the R-ATPs (Recovery Annual Teaching Plan) for the upcoming term for classroom teaching practice and relevance. Teachers were encouraged by the toolkit to think out of the box and create resources to add to the toolkit.

- **REFLECTION SESSIONS**

  A face-to-face reflection session was facilitated with the groups in the districts. The following aspects were covered:

  - LtP course content Q&A drawing on data from online engagements on the Social Learning Page and LMS.
  - Evaluate if educators have formed PLCs and the composition of those PLCs.
  - Orientation of PLC Champions.
  - A mini toolkit was presented, and an unboxing activity aligned to the R-ATPs (Recovery Annual Teaching Plan) conducted.

  For the asynchronous group, an online version of the reflection sessions and virtual unpacking followed the delivery of toolkits to their schools.

REFLECTION

Think about how you are going to support your CPD participants during implementation:

Do you have mechanisms in place to support participants' access to the blended CPD trajectory?

- Have you considered various ways participants can be supported during the CPD trajectory: by the learning materials, by their peers, by the facilitators, etc.?
- What challenges can you envisage during implementation? For each challenge, think what you can do to solve it.
- How will you know whether the implementation of your CPD trajectory is going according to plan? At what stage can you intervene and what will you do if implementation is not going to plan?

☑ CHECKLIST IMPLEMENT

PREPARE THE FACILITATORS

- ☐ Are all your facilitators competent in the content and delivery of CPD activities?
- ☐ Are your facilitators competent running a blended CPD trajectory?
- ☐ Have you made sure that everyone in the implementation team (facilitators, technical support, coordinator, etc.) clearly understands their roles and responsibilities?

PREPARE AND EQUIP PARTICIPANTS

- ☐ Are all CPD participants equipped with the necessary technologies to participate in the blended CPD trajectory?
- ☐ Can all CPD participants use and apply the necessary technologies to participate in the blended CPD trajectory?
- ☐ Do your participants have the knowledge and skills to enrol and participate in the blended CPD trajectory?
- ☐ Are your participants informed about learning outcomes, data policies and blended CPD requirements (e.g. time commitment)?

ORGANISE THE LEARNING ENVIRONMENT

- ☐ Is your physical environment set up for both in-person and remote activities within the blended CPD trajectory? Does it include all necessary equipment (e.g. projector, seats, flipchart, etc.)?
- ☐ Have you ensured that your online learning environment is up and running? (e.g. the LMS contains content and activities, the other communication channels are set up, all necessary software and applications are set up and tested?)
- ☐ Are all administrative procedures and tools in place so that participants can enrol seamlessly?
- ☐ Are there support tools (e.g. helpdesk) in place to ensure that struggling participants can still complete the trajectory?

REFLECTIONS

ORGANISE A DRY-RUN AND RUN A PILOT

- [ ] Have you made sure that you have enough time and budget for a dry run and pilot of the blended CPD with participants?
- [ ] Have you considered which participants to invite for the pilot sample?
- [ ] Have you prepared monitoring and evaluation tools to collect evaluation data on the blended CPD? (e.g. observation lists, checklists, etc.)?
- [ ] Do you have time and resources to review the CPD based on the feedback data from the pilot?

COST-EFFECTIVENESS, SCALABILITY AND SUSTAINABILITY

- [ ] Is the CPD implemented as planned in your cost effectiveness analysis? Have you documented any changes?
- [ ] Is the CPD implemented as planned in your scalability and sustainability plan? Have you documented any changes?

MOTIVATION & ENGAGEMENT

- [ ] Have you incorporated tools, strategies and techniques that would drive participants motivation to attend all components of the trajectory (in-person and remote)?
- [ ] Do you have tools in place that monitor the engagement level of participants?
- [ ] Do you have plans in place to address lack of motivation and too low engagement or retention?
- [ ] Are your facilitators trained to make use of engagement analytics that can be driven from platforms, e.g. LMS or SLP

GENDER, DIVERSITY AND INCLUSION

- [ ] Does your implementation plan include strategies and tools to address the specific contextual challenges related to female educators?
- [ ] Do your facilitators have the respective competencies to engage all participants through differentiation strategies and inclusive approaches?

REFLECTIONS

Phase 4

EVALUATE

Step #1

DEFINE THE OBJECTIVE AND FOCUS OF YOUR EVALUATION

Step #2

COLLECT EVALUATION DATA

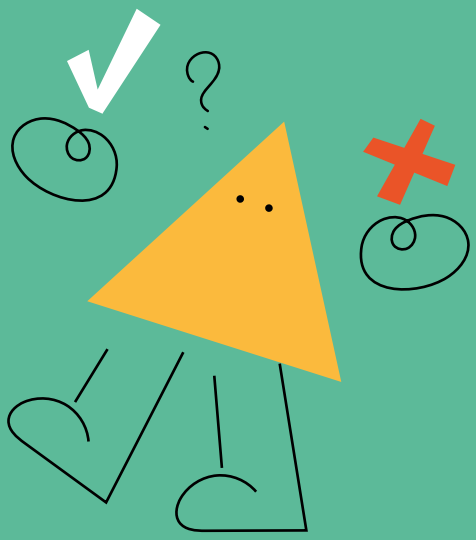
Step #3

ANALYSE, INTERPRET AND LEARN FROM THE DATA

OVERVIEW

The analysis, design, development, and implementation of blended CPD requires significant time and resources. Whether you are a CPD provider, a facilitator, or a member of the design team, you and your stakeholders want to know if your CPD is effective and why (or why not). Often, you also want to know if it was cost-effective and worth the investment of resources.

An evaluation will help decision makers determine whether the results and outcomes of the conducted blended CPD warrant further investment to continue, scale or expand, or whether it is better to discontinue efforts and try a new approach. In addition, an evaluation should allow you to evaluate if the blended approach was the best 'fit for purpose', if it was inclusive, engaging and motivating.



REFLECTION

Before you start your evaluation, reflect on the following:

- What is the purpose of your evaluation? What does success (and failure) look like? Who is your audience and what will they do with this information? How does your target audience want your findings presented to them?
- Do you have the necessary processes and tools to conduct an evaluation? Will you need approvals and permits?
- How will you use technology to leverage your evaluation activities?
- Who in the team has the required monitoring, evaluation and research expertise that is necessary for your evaluation team? Do you need to bring in external expertise?
- How will you fund your evaluation activities?
- How will you, while working through each evaluation step, record your ideas and decisions?

HOW IS EVALUATION DIFFERENT IN A BLENDED CPD TRAJECTORY?

With the use of ICTs, evaluation data can often be collected, analysed and presented more easily, allowing for shorter feedback loops and learning.

NOTES

While, in this guide, evaluation comes up at end of the process, it is important to note that evaluation is a systematic, iterative process that cuts across the key phases of developing a blended CPD trajectory, leading to continuous and iterative adaptations and improvements. For example, agreeing on the objectives of the evaluation needs to be done from the beginning, when the CPD trajectory is being designed.

It is important to clearly define the purpose for evaluating your blended CPD trajectory and activities, as this will help you decide what to measure and choose the most appropriate methods to achieve your evaluation objectives. A good evaluation does not necessarily need to evaluate every aspect of your CPD trajectory. In fact, the most useful evaluations are often highly focused on a few specific questions and outcomes, e.g. cost-effectiveness, the user experience or sustainability of the blended CPD trajectory.

Step #1:

DEFINE THE OBJECTIVE AND FOCUS OF THE EVALUATION

The first objective in the evaluation of a CPD trajectory is often to evaluate its effectiveness. Therefore, it is important to have a clear consensus on how success of the CPD programme looks like. For example, effectiveness can be described as the extent to which a CPD trajectory has met the learning outcomes, often described along several levels. In this guide, we use the five levels in Guskey's Model[xxx], a model that was developed specifically for evaluation of CPD for educators. Evaluation of a CPD trajectory, according to this model, requires consideration of five critical levels of information (Figure 17).

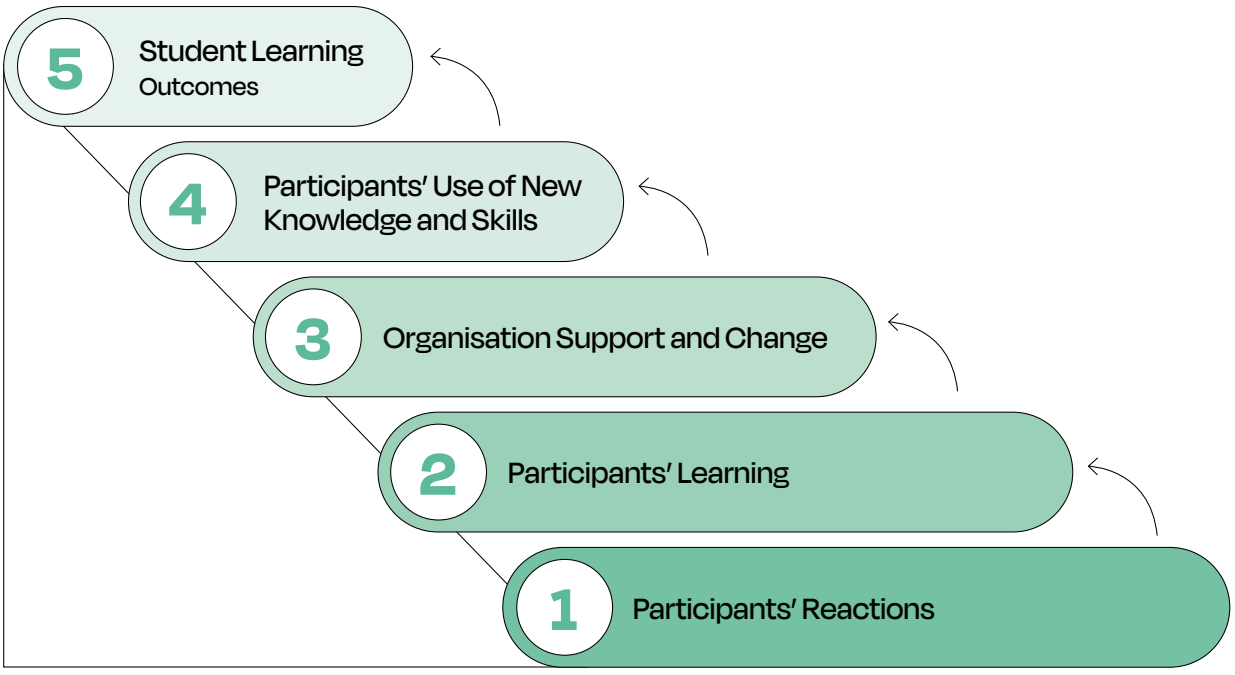


Figure 17: Guskey's Five Levels of CPD Evaluation

These levels progress from simple to complex and are built on one another so that success at lower levels is usually necessary—but not sufficient—for success at higher levels.

Beyond effectiveness, usually an evaluation also intends to assess if the blended CPD trajectory is **fit for purpose**, and looks at questions such as:

COST-EFFECTIVENESS

At what cost did the blended CPD approach help to achieve the goals of the trajectory? Are there alternatives that would have reached the same goals at a lower cost?

DIVERSITY, GENDER AND INCLUSION

Did all participants have equal access to the CPD trajectory, and did they all complete the CPD trajectory? What are barriers for participation in the CPD trajectory?

MOTIVATION AND ENGAGEMENT

What motivated participants to complete a CPD trajectory, what are reasons for dropping out?

SUSTAINABILITY

To what extent is the implementation of the trajectory integrated within existing education systems and can implementation be sustained over time? Does the impact of the CPD trajectory persist over time?

It is recommended to meet in advance with the design and evaluation teams to discuss your reasons for evaluating your blended CPD and to identify your evaluation objectives. You can list all objectives of the evaluation that you can think of. After agreeing on a priority list of evaluation objectives, the 'Tool for defining Evaluation Objectives and Questions', helps you in articulating a set of overarching evaluation questions (at least 3) for each evaluation objective, matched with Guskey's evaluation levels.

IN PRACTICE

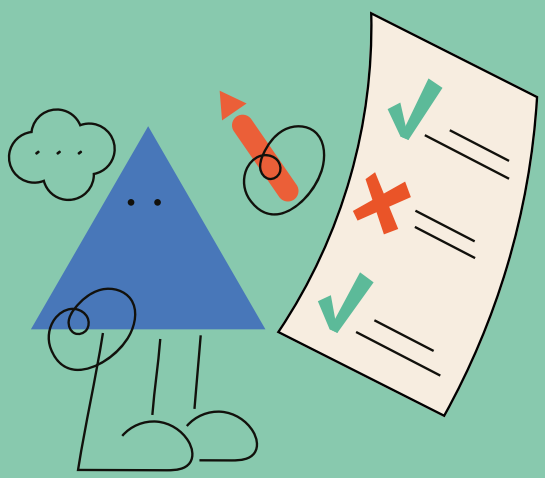
HOW **RIGHT TO PLAY** EVALUATES THE OUTCOMES OF **THE PARTNERS IN PLAY (P3)** PROJECT

The goal of the Partners in Play (P3) project is to improve the quality of education for Ghanaian girls and boys aged 4-12 through a scalable and replicable Learning through Play (LtP) model.

To achieve this, improving the capacity of the Ghanaian education sector to integrate LtP to deliver the curriculum is seen as an important step. One capacity building activity in this programme is the Reading Through Play e-training course, in which the first-line beneficiaries are primary- and secondary-grade teachers.

For the monitoring, evaluation and learning component of this course, the quality of the course content and the delivery of the e-training are evaluated. This is done by measuring improvements in knowledge, attitudes and practices of participants.

The LMS platform which hosts the e-training course has an embedded reporting system that tracks reach and individual progression. In the areas where the LMS cannot evaluate a user's behaviour and attitude, a pre- and post-survey is directly incorporated in the e-training course that must be filled out by each participant.



Step #2:

COLLECT EVALUATION DATA

It is recommended to conduct evaluation as an integral part of the blended CPD trajectory to improve the design and implementation of the blended CPD trajectory and to provide information for decision making at key points during implementation. Therefore, evaluation data is often collected at various points in the implementation of the CPD trajectory, or even before full implementation (e.g. while running a pilot or test of the blended CPD trajectory).

Depending on your evaluation question(s), you may decide to collect quantitative data, qualitative data or both (mixed methods). If the aim is to make standardised and systematic comparisons, quantitative data is preferable. For instance, when you want to compare the effectiveness of a fully remote with a blended CPD trajectory. When the aim is to study a situation in detail or find out why something occurred, qualitative data is more useful. For instance, understanding why a fully remote or blended CPD trajectory is more effective. Often, a combination of both quantitative and qualitative data is recommended to understand if and why your hypothesis is true or false.

Before deciding on data collection methods, find out:

- What data exist that can be used to answer overarching questions, e.g. data from annually collected educators' appraisal reports.
- What data can be generated automatically, e.g. by an LMS?
- What kind of data is needed to achieve your evaluation objectives and answer your evaluation questions? It is recommended to use a mixture of qualitative and quantitative data.
- How might contextual factors impact your evaluation and even dictate your data collection methods. e.g. data collection via Google forms may not be effective if participants lack internet access[27] and face to face focus groups may not be feasible if participants live far away from each other.
- How can data collection consider teachers' time, and avoid disruption to teaching and learning in schools?
- How can you ensure data is representative, capturing the voices of marginalised groups?

Figure 18 lists examples of evaluation objectives across each level of Guskey's model and across the cross-cutting themes. It outlines evaluation questions and recommended timing. These questions will help you reflect on the analysis, design and implementation of your blended CPD.

27 In such circumstances, offline digital solutions such as Kobo Collect can be useful.

LEVEL	REFLECTION QUESTIONS	TIMING
Participants' reactions	• Do participants like the blended activities of the CPD trajectory? • Do participants experience the blended CPD trajectory as useful? • How do participants experience the technology used? • Are participants motivated to continue and complete the CPD trajectory?	During the blended CPD trajectory e.g. at the end of a module or fixed period e.g. 2 weeks
Participants' learning	• Did participants achieve the learning outcomes?	At regular intervals during the blended CPD
Organisation's support and change	• Did the blended approach affect the organisational climate or procedures? • Was the blended CPD trajectory implementation effectively advocated, facilitated and supported? • Were blended CPD trajectory successes recognised and shared?	After the blended CPD trajectory
Participants' use of Knowledge and Skills	• Did participants effectively apply the new knowledge, skills and attitudes? • Are the effects of the blended CPD on teacher practices lasting?	After the blended CPD trajectory at regular intervals
Learning outcomes (impact level)	• Did the blended CPD affect student performance or achievement? • Did the blended CPD influence students' physical or emotional wellbeing? • Is student attendance improving and dropouts decreasing?	After the blended CPD trajectory, giving participants time to implement what they have learnt
Diversity, Gender & Inclusion	• Does the blended CPD trajectory support the inclusion of a diversity of participants? • Are all participants able to access and participate effectively in the blended CPD trajectory?	During the blended CPD trajectory
Engagement & Motivation	• Are participants intrinsically motivated to take part in the CPD trajectory? • Which aspects of the CPD trajectory (content, activities, facilitator actions) contributed to or detracted from participants' engagement? • Are participants engaged during the CPD trajectory?	During the CPD trajectory
Cost-effectiveness, Sustainability & Scalability	• Is the blended CPD trajectory cost-effective? • Can this CPD trajectory be scaled while retaining a high level of quality and efficiency? • Is this blended CPD trajectory sustainable even if donor funding is cut?	During the blended CPD trajectory

Figure 18: Examples of reflection questions for each level in Guskey's evaluation model

DOWNLOAD OUR **'IDENTIFY YOUR DATA METHODS'** TOOL

The tool to 'Identify your Data Methods' can assist you in the selection of data collection methods. Data collection methods include surveys, (semi-) structured interviews, observations, focus group discussions, participants' journals, learning walks, peer observations, standardised tests, (digital) portfolios, checklists, LMS Analytics, discussion forums, simulations and demonstrations.

In general, information about actual behaviour is more reliable than asking participants about their behaviour. Research shows (1) that teachers often think they have been changed by CPD and so will tell you they now think and teach differently — but they actually don't and (2) if they do think and teach differently it often fades and reverts back to the norm.

IN PRACTICE

A **DIGITAL DATA ECOSYSTEM** TO EVALUATE BLENDED CPD IN RWANDA | by VVOB

Together with the University of Rwanda – College of Education (UR-CE), Rwanda Basic Education Board (REB), VVOB – *education for development* offers CPD programmes to educators in Rwanda.

As part of these programmes, VVOB builds the capacity of REB and UR-CE to evaluate the CPD programmes. The evaluation system relied on standalone, paper-based instruments which limited the ability to gain access to real time data and to connect datasets. To improve the evaluation system, VVOB and partners developed a digital data ecosystem.

The system is made up of interconnected information technology resources that allow for a fully digital process, from data collection to reporting. The digital data ecosystem has resulted in fewer errors and faster feedback loops. The system is built on a framework developed by Kirkpatrick & Kirkpatrick (2015) which states that an evaluation of a training programme (e.g. CPD programmes) should focus on four levels:

1. **Level 1 Reaction:** this level focuses on the degree to which participants react favourably to the CPD. Examples of indicators are satisfaction, engagement and relevance.

2. **Level 2 Learning:** this level focuses on understanding whether the CPD has increased the knowledge and competences of participants. In addition, it is also important to evaluate commitment and confidence at this level, as these two indicators help to close the gap between learning and behaviour.

3. **Level 3 Behaviour:** this level focuses on the degree to which participants apply what they have learnt on the job.

4. **Level 4 Results:** this level looks at whether the CPD has had an impact on the overall (school) environment. Examples of indicators are improvements in the application of the five standards of school leadership and an improvement in school culture.

In addition to these four levels, an extra level has been added: **Level 0 Participation**. This level studies the level of participation in the blended CPD programme.

The digital data ecosystem is made up of components that are integrated in a dashboard that includes Key Performance Indicators for each level. The process to generate the dashboard has been digitised. Figure 19 shows the digital data ecosystem architecture, the software that has been used and how it is being applied.

watch our video

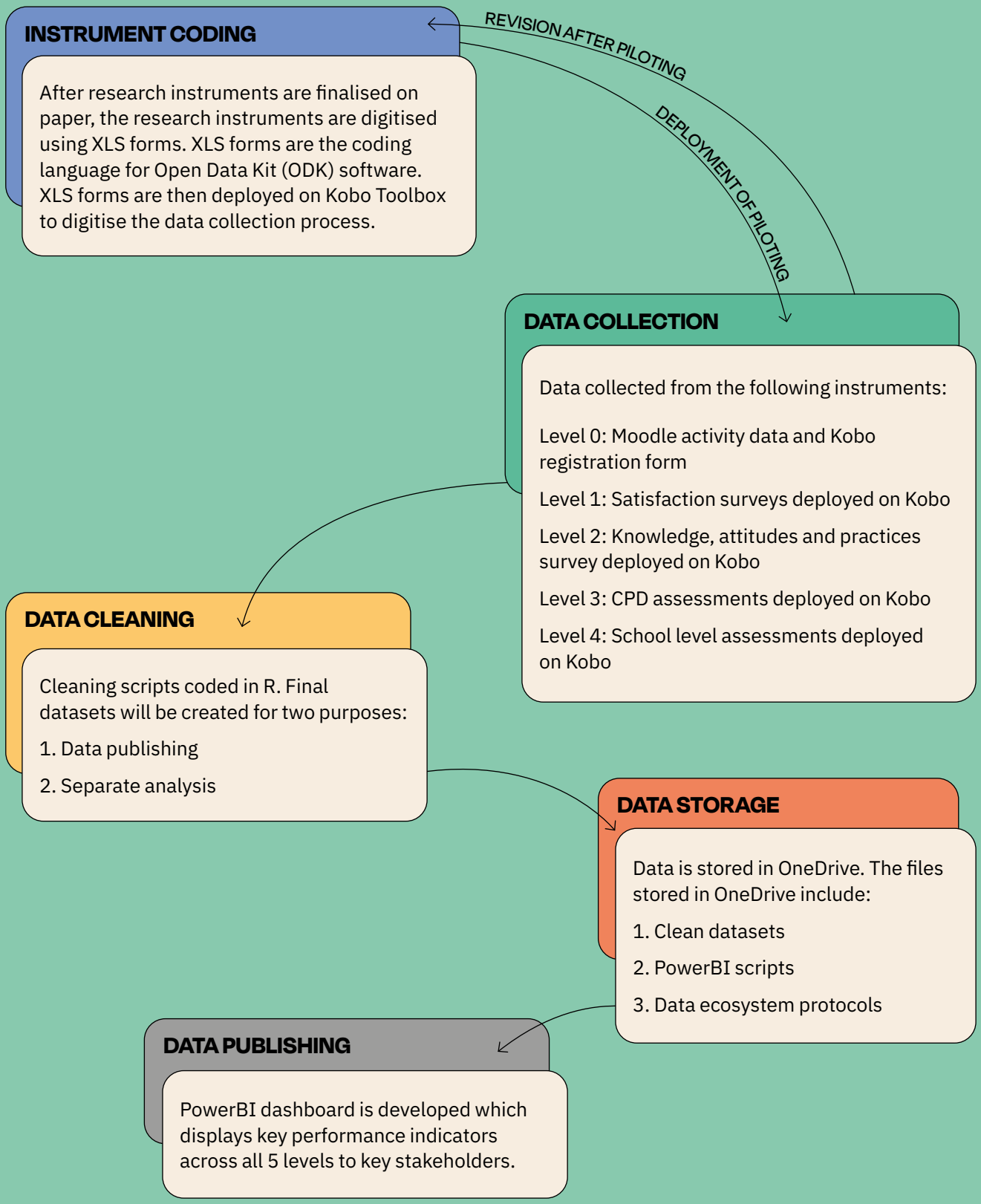


Figure 19: Architecture of the digital data ecosystem

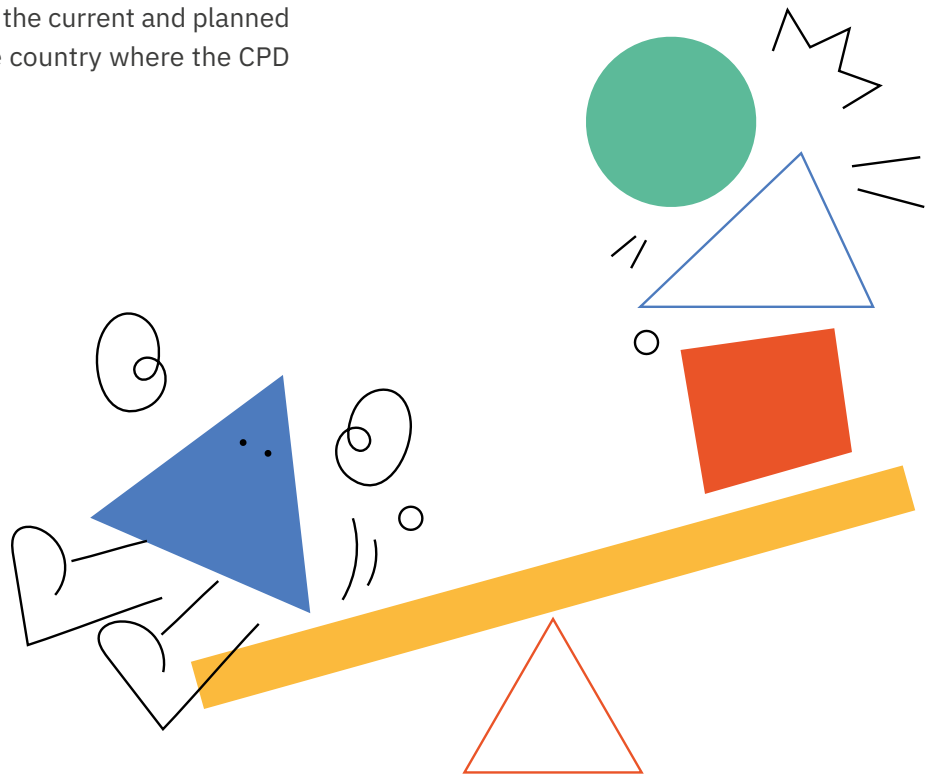
DATA SAFEGUARDING & PRIVACY

Blended CPD and, in particular, the opportunities it offers to collect a vast range of user data during online learning raise ethical questions. CPD providers need to consider the safeguarding of data and privacy. That means putting in place policies, practices and standards (including administrative, physical, technical, and procedural) to protect data from destruction, loss, unauthorised disclosure or misuse[xxxi].

This is important because breaching the protection and security of your data might put participants, facilitators or CPD organisers at risk. CPD providers are advised to follow the pre-cautionary principle: if you cannot guarantee that your participants' and facilitators' data will not be misused, it is best not to collect data on them.

Safeguarding data is closely linked to data privacy, which means handling personal data with respect for confidentiality and anonymity. This applies to all data that can be used to identify individuals (whether participants or facilitators) such as their name and national identification number. In recent years, several governments have put in place data protection regulations (GDPR in the European Union, POPI in South Africa), or are in the process of doing so. It is important to be aware of the current and planned data protection laws in the country where the CPD is delivered.

Failing to ensure data privacy can cause problems for participants[xxxii]. A typical example is the leak of participants' course results or expressed opinions about their school leaders; information that might jeopardise their reputation or work security if it reaches their supervisors. In addition, facilitators and participants should be made aware of the risks of data exposure when using technology, especially when using social media platforms. During registration, participants should sign a copy of the data protection policy of the CPD provider. Discuss with participants what data will be collected, how long they will be kept, and what they will be used for. Make them aware of the data policies of any software that will be used in the trajectory (e.g. WhatsApp, Teams).



Step #3:

ANALYSE, INTERPRET AND LEARN FROM THE DATA

Once data is collected, the next steps are:

DATA PREPARATION

once the data are collected, they need to be organised and prepared for use. This includes categorising, coding and presenting the data in a useful way for analysis, interpretation and learning.

DATA ANALYSIS

is the process of examining data to understand the results of your evaluation. Based on the type(s) of data you have (quantitative and/or qualitative) and the frequency of data collection (one time point or repeated time points) you choose your analytical approach to respond to your evaluation questions identified in step 1.

DATA INTERPRETATION AND LEARNING

ideally involves a variety of relevant stakeholder, who have been involved in or impacted by the blended CPD trajectory, e.g. facilitators, blended CPD participants, blended CPD providers. Data interpretation provides an opportunity for each member to bring a different set of experiences and perspectives and to contribute to a robust review of the data. In the table below, key steps of a collaborative data interpretation activity are highlighted that provide a structure to support collaborative analysis and interpretation of evaluation data.

1 **REVIEW** the evaluation questions that are addressed by the data. Check to make sure each person understands how data were collected, and the question(s) the data are meant to address.

2 **PREDICT** what you believe the data will show. Each person is asked to state their assumptions and expectations about the findings of the data analysis. The value of doing this is that afterwards you can review all those assumptions.

3 **EXAMINE** copies of the data compilations and visualisations. Each person silently reviews the data and makes notes about observations and questions. Questions can relate to unusual or surprising findings suggested by the data.

4 **ASK** clarifying questions about the data. Make sure that each person understands the organisation and meaning of the data.

5 **OBSERVE** what you see in the data without judgement or interpretation. Ask each person to share an observation with a clear reference to the data. Observations could include sentence starters such as 'I see... I observe ... I notice ...' e.g. 'The patterns and trends I see are ...'

6 **INTERPRET/INFER** what the data reveals. Analysis can be made using the following questions:

- What might explain the patterns or themes that emerge in the data?
- What areas in the data stand out as needing further explanation?
- How do the data answer or not answer our question(s)?
- What new questions emerge from the data?
- What could the variation in the data and outliers tell us?

7 **IDENTIFY** lessons learned and implications for next steps.

- Consider whether additional data need to be collected.
- Consider whether changes to CPD activities need to be made.
- Plan for how those changes will be communicated and implemented.

Figure 20: A Collaborative Data Interpretation Activity

Dissemination and communication of findings and learning is a key aspect of evaluation. Effective dissemination and communication improve take-up of findings among stakeholders. The 'Tool for Planning Communication about your Evaluation Findings' allows you to list your evaluation findings, to identify the groups that should know about the evaluation findings and to make a list of the products and dissemination activities you will use to share the results (e.g. report, brief, newsletter, presentation, social media campaign).

Consider:

- Gender, inclusion and diversity: who do you want to reach and what is their context? Which audience(s) will you target with each product/ activity and how will you encourage them to apply the findings? How will you include all stakeholders?
- Engagement & motivation: which strategies will you put in place to drive stakeholders' motivation to engage with your evaluation findings?
- Cost effectiveness, scalability, and sustainability: will the dissemination of your findings shed light on opportunities for scalability and sustainability?

OPTIMISE THE USE OF ICT TO COLLECT, ANALYSE AND DISSEMINATE DATA AND INSIGHTS

While thinking about data collection, analysis and reporting, reflect on the opportunities offered by ICT, especially those utilised in your blended CPD trajectory to more systematically and automatically collect, analyse and report data. Here are some examples:

- **Digital surveys and questionnaires** are often more accurate and complete than data collected through paper forms, reducing manual errors or loopholes and all the labour associated with manual data entry. Additionally, they can be administered via cell phone, email, or the web such as hosted on your LMS. CPD providers using online surveys can easily adapt questions dynamically based on previous user responses. Therefore, digital data collection tools are a more scalable, flexible, faster and cost-effective option. Where internet connections are not always available, offline digital solutions such as Kobo Collect can be useful.
- **LMS Analytics** provide blended CPD providers with the potential for real-time and ongoing monitoring and early warning of problems, e.g. poor attendance or lack of participation, hence automatically alerting blended CPD providers when actions need to be taken.
- **Data mining and artificial intelligence** help you to access learning data including instant feedback from participants and facilitators through which you would gain insight into who your participants are, how they are using the content of the blended CPD trajectory and what some of their behavioural patterns are.
- **Digital statistical tools** (e.g. Google Analytics) provide opportunities to track information, e.g. the demographics of participants, how much time is spent on modules by individuals, which topics specific participants are more interested in, etc.
- **Dashboards** (e.g. PowerBI) offer a comprehensive overview of data from different sources. Interactive dashboards enable users to interact with data when studying specific indicators, digging deeper and filtering in several ways.

Data collection, analysis and reporting using ICT is also faster and more efficient, as it can be done remotely without the need for CPD providers to travel widely, saving staff time and the cost of transportation and therefore enabling quick turnaround of available data reporting. Different partners in the data collection, analysis and reporting do not need to be in the same location and can easily work jointly, as data is stored easily and quickly in a digital format and can be shared digitally for analysis and reporting.

Note that blended CPD offers the opportunity to collect much data on participation, engagement and progress of CPD participants, mostly supported by technology. Such data can be crucial in the evaluation of CPD trajectories and again with the support of technologies to collect, analyse and report on data, as CPD trajectories can be evaluated and improved in short feedback loops.

☑ CHECKLIST EVALUATE

DEFINE THE OBJECTIVE AND FOCUS OF YOUR EVALUATION

- [ ] Have you clearly defined your evaluation objectives? Have you communicated them to your team?
- [ ] Have you clearly identified the CPD evaluation level that you are going to focus on during your evaluation?
- [ ] Have you come up with a set of overarching questions that, if properly answered, will achieve your evaluation objectives?
- [ ] Are you sure that your evaluation levels and questions are all aligned with your evaluation objectives?

COLLECT EVALUATION DATA

- [ ] Have you identified the appropriate time and frequency of your evaluation activities?
- [ ] Has your selection of data methods been aligned to your evaluation objectives and questions?
- [ ] Have you identified who will lead each data collection activity?
- [ ] Are your data collectors and/or evaluator/s well trained and qualified?
- [ ] Have you developed an evaluation plan and communicated it to your team?
- [ ] Do you have a mechanism in place to ensure that there is not too much or too little collected data?
- [ ] Have you checked that all data and activities are well matched to your objectives?

REFLECTIONS

ANALYSE, INTERPRET AND LEARN FROM THE DATA

- [ ] Have you developed an analysis plan in which you clearly outline your analysis approach?
- [ ] Was your analysis done collaboratively?
- [ ] Have you communicated findings to stakeholders?
- [ ] Have you identified the lessons learnt?

ENGAGEMENT AND MOTIVATION

- [ ] Do you have a plan to engage the respective stakeholders with your evaluation findings during the dissemination phase?

GENDER, DIVERSITY AND INCLUSION

- [ ] Do you have a plan to ensure that your evaluation findings are communicated to all stakeholders?
- [ ] Does your plan include diverse communication channels and techniques, to cater for the diverse needs and characteristics of your stakeholders?

EFFECTIVENESS, SCALABILITY AND SUSTAINABILITY

- [ ] Have you thought about and planned for an effective utilisation of evaluation data?
- [ ] Will your evaluation findings shed light on the potential for scalability and sustainability?

REFLECTIONS

GLOSSARY

TERM	DEFINITION
Asynchronous learning	The facilitator and the participants of a blended CPD trajectory are not necessarily engaged at the same time; i.e. there is no real-time interaction between participants and the facilitator. E.g. watching pre-recorded video, posting a forum message or doing homework.
Assessment	A variety of methods or tools that educators use to evaluate, measure, and document learning progress or skill acquisition. A distinction is made between formative and summative assessment.
Continuous Professional Development (CPD)	A planned, continuous, and lifelong process whereby educators develop their personal and professional qualities, and improve their knowledge, skills and practice, leading to their empowerment, the improvement of their agency and the development of their organisation and their students.[xxxiii]
CPD modality	The modality describes how CPD is delivered to the participants. This can be in-person or remotely. Remotely can be synchronous or asynchronous.
CPD provider	The organisation or government institution responsible for delivering a CPD trajectory.
Educator	A person whose work is teaching others[xxxiv], such as teachers and school leaders.
Evaluation	The process of reviewing to measure the quality of something.
Facilitator	The person who guides, interacts with and supports participants for the entire duration of the blended CPD trajectory. In this guide, we prefer the term facilitator to trainer, as it suggests a broader supporting role, and a more active role for participants.
Framework	A basic conceptual or supporting structure around which something can be built; a system of ideas that is used to plan or decide.
In-person	Learning or interaction between participants and the facilitator in the same physical space.
Instructional Design	The design and creation of learning experiences and materials resulting in the acquisition and application of knowledge and skills[xxxv].
Learning Management System (LMS)	Software that enables organisations to plan, deliver and evaluate online courses.
Methods	Broader techniques used to help participants achieve learning outcomes e.g. workshop, training, coaching, etc.
Objectives	Primary aims of a CPD activity or trajectory (from the facilitator's or CPD provider's perspective)

Outcomes	Specific, measurable knowledge, skills and attitudes that the participant will gain by participating in a CPD trajectory (from the participant's perspective).
Pedagogy	Pedagogy is the theory and practice of learning, and how this process influences, and is influenced by, the social, political, and psychological development of learners. Pedagogy is the study of how knowledge and skills are imparted in an educational context, and it considers the interactions that take place during learning[28]. Examples of pedagogies are critical pedagogy and student-centred learning.
Remote CPD	The participants and the facilitator of a blended CPD trajectory are not in the same physical place during the time of learning. e.g. the delivery of CPD online or through radio or television. This also includes traditional correspondence learning. Sometimes, the term CPD through distance learning is used.
Scalability	***Scalability*** means the extent to which a CPD trajectory can be extended by reaching out to new terrains, new target groups, adding new scopes, etc. It is important that quality and efficiency remain high during that expansion. VVOB's Education Scalability Checklist (ESC)[xxxvi] is a useful tool to assess how a particular CPD trajectory can be scaled up; identify opportunities for and constraints to scaling; and plan actions to increase the viability for scaling.
Sustainability	***Sustainability*** is the capacity of the CPD provider to continue the CPD trajectory after start-up. It includes financial, technical and institutional sustainability. Sustainability should be planned at the beginning of the process, i.e. it should be an integral part of the strategy. *Financial sustainability*: does the CPD provider have the financial means to continue the CPD? This may include costs for revision, train new facilitators and for monitoring and evaluation of the CPD. *Technical sustainability*: does the CPD provider have the technical skills to continue the CPD? Do facilitators have a strong grasp of the CPD to transfer this learning with a high degree of quality? Is there a critical mass of people within the institution familiar with the CPD to get a sense of ownership? *Institutional sustainability:* is the CPD trajectory aligned with the mission and vision of the institution and embedded in its strategy and work plans? This implies budgets and human resources are assigned by the institution.
Strategy	A plan of action designed to achieve a long-term goal. Mintzberg identifies five components or roles for a strategy (5 Ps): Strategy as a Plan, Strategy as Ploy, Strategy as Pattern, Strategy as Position and Strategy as Perspective[xxxvii].
Synchronous learning	Participants and facilitator(s) are engaged in a learning activity at the same time, but not necessarily in the same place e.g. in an online group discussion.
Technique	A well-defined procedure or way used to accomplish a specific activity in the teaching and learning process e.g. collaborative learning.
Technology	Hardware, software and platforms used in educational settings. The collection of technologies—including hardware, software and digital content—that have been designed for, or can be used for, educational purposes is also called edtech.
Trajectory	The learning path of a participant through a series of interrelated CPD activities, leading to the achievement of a set of learning outcomes.

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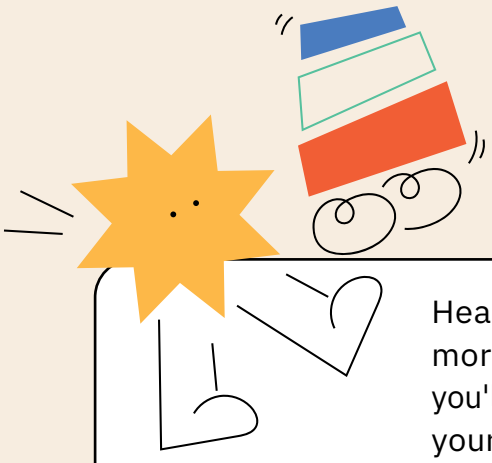
TOOLS

Looking to get your hands on the tools mentioned in our publication? Well, look no further! All the helpful resources, including checklists, reflection questions, and surveys, are available for download on our website: www.blend-on.org

You can also simply click on the hyperlink provided to access the resource.

- Blended CPD Design Matrix
- Define your Evaluation Objectives, Levels & Questions
- Identify Data Methods
- Participants Profile Tool
- Pedagogy & Content Assessment Guiding Questions
- Planning Communication for Evaluation Findings
- Resource Mapping Tool
- Sample of Technology Assessment Survey



Head over to our Downloads to access more resources. With just a few clicks, you'll have everything you need to innovate your approach to professional development with blended CPD.

Congratulations to VVOB on this timely and comprehensive guide!

Global school closures as a result of the COVID 19 pandemic heightened our awareness of the importance of online learning—it's scalability, convenience, and ability to connect learners to experiences and people to which they'd never otherwise have access. But the emergency remote learning of COVID school closues also re-emphasized the importance of teaching and learning as both a human and social pursuit. Blended learning, if designed well, promises us the "best of both worlds."

And thanks to VVOB's guide, readers have a clear path and structure to begin designing and implementing their own blended program. The guide's highly structured and visual frameworks outline the many critical considerations involved in designing, developing and evaluating a blended learning program. Its case studies and useful checklists will help designers and implementers of blended learning frame and focus on the most important elements of a blended learning expertience that that truly brings to learners the best of both online and in-person worlds.

Mary Burns

Education Development Center

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