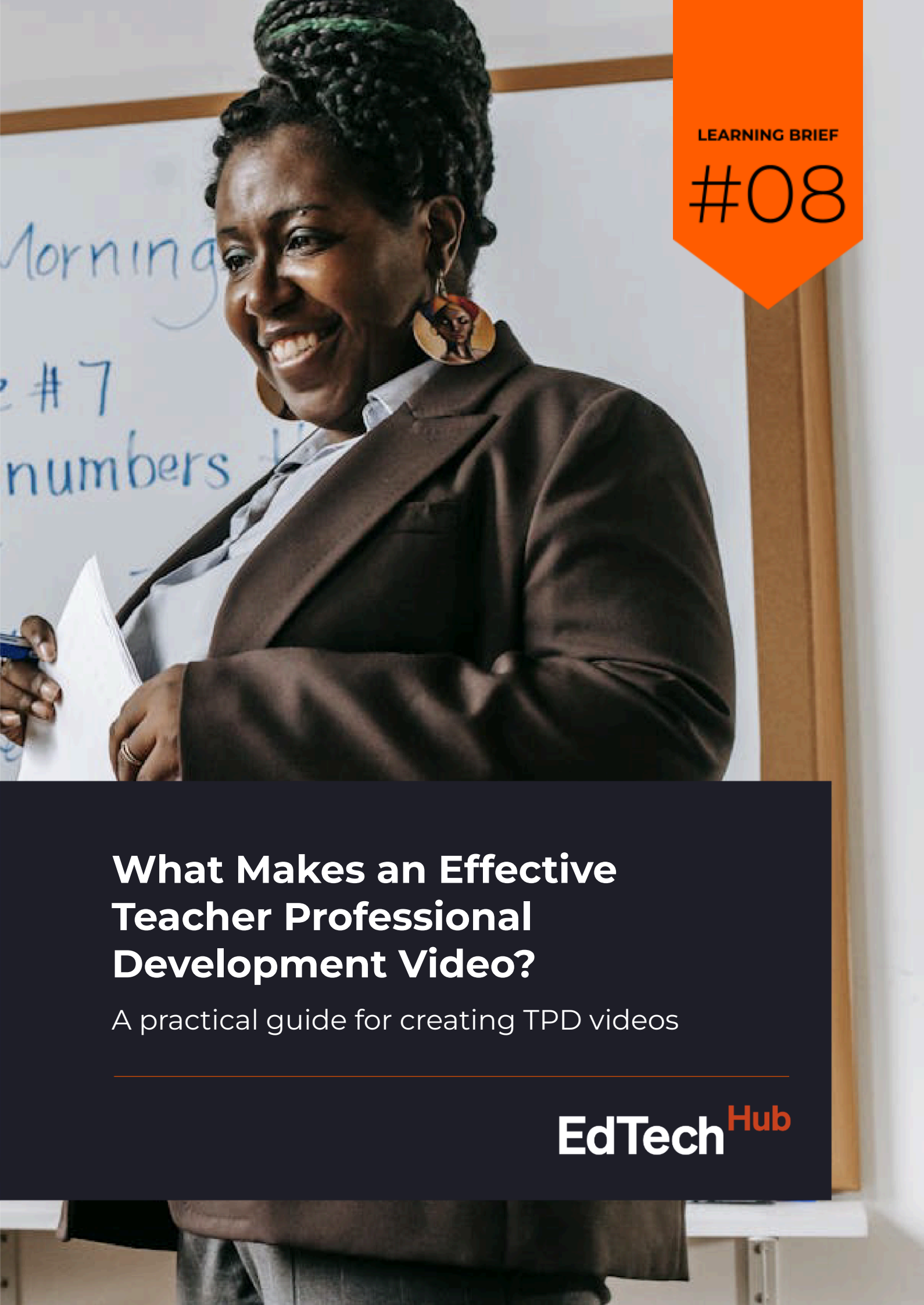

LEARNING BRIEF

#08

What Makes an Effective Teacher Professional Development Video?

A practical guide for creating TPD videos

EdTech Hub

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Contents

Abbreviations and acronyms

LMIC	Low- or middle-income country
NNP	National Numeracy Programme (Malawi)
NCDAE	The National Center on Disability and Access to Education (USA)
TPD	Teacher professional development

💡 When you see these icons, they indicate 🎥 (video example), 🔍 (resources or samples), and 🗂️ (templates).

Why this question matters

With the rise of digital technologies and mobile learning for teacher professional development (TPD), institutions and organisations responsible for teacher education are increasingly producing instructional videos to support teacher learning. While these organisations may be well equipped to deliver curriculum and training, they may not have expertise in video design. ↑Brunvand (2010) notes that "The availability of tools to capture, edit, and share video does not automatically result in the production of high-quality videos that can be used effectively in teacher professional development" (p. 248). Most evidence (in English) on how to produce effective TPD videos comes from high-income country contexts.

A rapid literature review undertaken for this learning brief revealed that although numerous studies and evaluations emphasise the efficacy of video for TPD in low- and middle-income countries (LMICs), there is little guidance on how to produce effective videos or research on which elements make instructional videos more effective in LMICs (see, for example, ↑D'Angelo et al., 2022; ↑Lok et al., 2018; ↑McAleavy et al., 2018; ↑Susantini et al., 2018 and five studies in the World Bank Teaching for Technology evidence matrix (↑Quota et al., 2022). Some aspects of instructional video design, such as management of cognitive load and increasing learner engagement through interactive design, may be applicable in any context. However, there are additional factors to be considered in the context of producing videos for teachers in LMICs, to address challenges such as technical specifications (↑Bohm & Lindblom, Cecilia, 2024), e.g. bandwidth, connectivity, and low-spec devices, as well as inclusivity (e.g. multilingualism (↑Mayer et al., 2020). To fill this gap, this learning brief synthesises guidance on producing effective TPD videos, highlighting considerations for LMIC contexts.

This learning brief focuses on **instructional videos where the teacher is the target audience**.

We adopt ↑Ibrahim et al.'s (2012, p. 220) definition for 'video' quoted in ↑Fyfield et al. (2022), namely: "'a format of presenting information as a stream of dynamic visual and auditory content', which includes live shot action, dynamic cartoons, stop-motion and computer-generated animations." Referencing ↑Winslett (2014), ↑Fyfield et al. (2022) also note that **"these kinds of instructional videos have content, concepts and skills that are explicitly explained** " (p. 156, emphasis added). This learning brief does not include evidence or guidance for video recordings of ongoing classroom instruction to be used for self-reflection, as there is a robust evidence base and technical guidance available for self-reflective video recording for teachers (see, for example, (↑Gaible & Burns, 2005; ↑World Bank, 2022

Key insights to improve practice

Principles underpinning instructional video design

Several principles from the cognitive theory of multimedia learning (CTML) (↑Mayer, 2024) are relevant for instructional videos. The most effective TPD videos are not merely recordings of a person verbally explaining a concept or topic (↑Beheshti et al., 2018). In a systematic review of empirical studies of instructional videos, ↑Fyfield et al. (2022, p. 155) found that "Instructional videos that are shorter, segmented, coherent and paired with learning activities are more likely to lead to improved learning gains [...]."

1. Segmentation is a key design principle for effective instructional videos

The principle of segmenting emphasises the importance of breaking videos into smaller, conceptually sound or logical 'chunks' or segments (↑Brame, 2016; ↑Brunvand, 2010). Complex topics or learning objectives should be presented in a series of short videos rather than in a single longer video. This helps ensure that the information presented requires a manageable cognitive load (↑Fyfield et al., 2022), meaning the amount of new information isn't overwhelming for teachers to process. This principle particularly informs the setting of learning objectives and video length.

2. Active engagement with viewers is essential

Evidence indicates that viewers learn more when a video is paired with learning activities (↑Brame, 2016; ↑D'Angelo et al., 2022; ↑Revina et al., 2022; ↑Susantini et al., 2018). These activities may range from prompts for noticing to discussion questions included in the video, providing hyperlinks to additional resources, or even multiple-choice response options embedded between (online) video segments, which require a response before proceeding (↑Brame, 2016; ↑D'Angelo et al., 2022; ↑Vural, 2013). According to ↑Brunvand (2010, p. 250),

"noticing" in TPD involves "identifying important interactions, making connections between those interactions and broader issues, and using existing knowledge of the classroom to make informed decisions." Providing explicit guidance to users or TPD facilitators on how to use the videos interactively increases the likelihood of proper use (↑Kanyoza et al., 2025).

There are several principles that, when combined, ensure viewers' focus is effectively directed, and key learning points are reinforced.

3. Only materials directly related to the learning objective should be included in the video

This principle is referred to as coherence (↑Fyfield et al., 2022). ↑Connolly (2025) suggests: "Every scene, script line, and visual must serve a specific educational purpose." Modality integration, or the strategic combination of visuals and audio, is also central to achieving coherence and purpose. Signalling or cueing supports coherence by guiding the viewer's attention to important details and key concepts (↑Brame, 2016; ↑Fyfield et al., 2022). A full array of tools can be used for signalling (see the section on cueing systems below); however, they should be carefully selected to ensure coherence and modality integration and to avoid cognitive overload or distraction.

Production parameters

Initial decisions on video design will inform all subsequent decisions and production costs

Basic considerations at the start of each project include whether your video is a standalone output or part of a package with other materials, and where your use of video fits within the categories of the SAMR Framework (↑Puentedura, Ruben, 2006).

S: Substitution
A: Augmentation
M: Modification
R: Redefinition

In this framework, 'S' (Substitution) refers to the use of a digital video to replace text. 'A', for Augmentation, is when the video provides an alternative to text that functionally improves the experience. For example, some teaching strategies or

interactions may be easier to understand when viewed in a video rather than explained in text. 'M' for modification implies that the task for teachers will be significantly modified using video, and 'R' for redefinition means the video allows for new teacher tasks, which would not be possible without the video. Many TPD videos may fall under the categories of augmentation or modification.

Each video should have one explicit learning objective that guides every decision, ensuring each element is coherent and serves the objective (↑Connolly, 2025).

The learning objective for a TPD video should be based on your knowledge of the teachers for whom the video is created. The object specifies what teachers should understand or be able to do (↑Brunvand, 2010; ↑McAleavy et al., 2018). ↑Fyfield et al.'s (2022) systematic review of empirical evidence on instructional videos emphasises that each video should focus on one learning goal, and that the goal should be made explicit to viewers. Whether the learning objective is achieved will ultimately indicate the video's effectiveness.

Location and format inform the script, development processes, and video production costs.

The video production location is closely tied to the video format to be used. Format options include classroom footage, presenter-led videos, animation, interactive videos, and combinations of these, among others.

Filming TPD videos in actual schools and classrooms makes intuitive sense. However, in addition to ethical consent processes, numerous technical challenges must be addressed to produce a high-quality video filmed in a classroom or school. In an impact assessment of Vietnam's adaptation of the innovative Colombian model, Escuela Nueva, the ↑World Bank (2016) highlights that the following elements must be considered when filming in a classroom setting:

- Lighting
- Availability of electrical outlets
- Capturing the teacher and the students on video (possibly requiring multiple cameras)
- Visibility of artefacts such as writing on the blackboard,

student exercise books or textbooks
- Setting up cameras in the middle of the room rather than the front or back
- Sound quality and need for microphones.

In addition, the potential limitations noted by ↑Bohm and Lindblom (2024) in filming classrooms for research purposes also apply to producing instructional videos in a live classroom. These potential challenges include obstructive furnishings and unpredictable movement, as well as a lack of control over external noise and weather impacts (e.g., heavy rain on a corrugated roof).

An alternative is to film in a studio, where sound quality and lighting are carefully controlled, and expensive equipment is less likely to be damaged. However, this could entail the cost of bringing teachers and students to a studio and affect the authenticity of classroom enactments.

Animations provide an affordable alternative that can work particularly well for showing a process, demonstrating a sequence of activities, or illustrating relationships between concepts (↑Brame, 2016; ↑Connolly, 2025). Videos are now frequently used for agricultural training in sub-Saharan Africa and "have been shown to be no less effective than live-action presentations (↑Smith et al., 2012) while being much less expensive to produce and to make post-production edits (↑Lowe, 2001; ↑Lowe et al., 2014)" as cited in ↑Bohonos et al., 2022, p. 3).

Video length matters: if videos are too long, learners will 'tune out' or stop paying attention. Targeted teachers may also be unable to download or play the video on their devices if the file size is too large. For example, videos used to support facilitators of teacher learning circles in Malawi were split into segments to make them 'bite-size' — interactive and small in file size (↑Kanyoza et al., 2025).

An extensive study of massive open online courses (MOOCs) established that most viewers of instructional videos tune out after 6 minutes (↑Conner-Simons, 2014). Some studies suggest producing and using even shorter videos of 2–3 minutes (↑Aleksandronets, 2025; ↑Beheshti et al., 2018). All sources reviewed agree that short, focused videos lead to

greater learning gains, even if a series of videos is needed to fully cover a topic or concept (↑Brame, 2016; ↑Conner-Simons, 2014; ↑Fyfield et al., 2022). Segmenting videos into chunks breaks longer topics into a series of short videos.

Video specifications, such as file size and type, should be determined by the needs of intended viewers

Target resolution and file format should be based on how the video will be disseminated. Consider bandwidth, file size, and the devices that will be used for viewing the video. For example, .mp4 may work well on computers or tablets, whereas .3pg is more appropriate for phones, and either format may require a low-quality or compressed version to remain accessible on lower-bandwidth or weak-internet connections. Some training video providers offer multiple options so that users can choose the best fit for their bandwidth and device. See, for example, ↑Scientific Animations Without Borders' (no date) animated training videos, each of which can be downloaded as .mp4, .mp4 lite, .mov, .3gp and .3gp lite.

Data costs are often a barrier for teachers in LMICs (↑International Development Research Centre, 2024; ↑Koomar et al., 2023; ↑Swai et al., 2024). Therefore, the smaller the video files, the easier it may be for teachers to stream or download the video.

🎥 Box 1. Video Examples: Demonstrating Key Design Parameters

Several freely available TPD videos are used as samples in this learning brief.

In each sample video, the **learning objective** is clearly stated at the start and signalled in the video title. Most of these videos are **between 2 and 7 minutes long**.

Most were filmed on school sites, **in classroom lessons**.

🎥 Video example	🔍 Sources and URLs for further information
'Teacher repeats and clarifies' from the OER4Schools collection uses an excerpt from a science lesson in Zambia, demonstrating the use of two cameras, so that views move between the teacher and students.	OER in Education (no date) *Teacher repeats and clarifies* [Video recording]. Retrieved 8 January 2026. Available at https://oer.opendeved.net/wiki/OER4Schools.
'Higher number addition using manipulatives' by FundaWande is filmed in a primary school mathematics class in South Africa.	Funda Wande (2023). *M.2.3 Higher number addition using manipulatives* [Video recording]. Available at https://www.youtube.com/watch?v=weTFgwFtL-U.
'Teaching large class' is filmed in a Tanzanian early grade classroom.	Bantanuka (2025). *Teaching large class* [Video recording]. https://www.youtube.com/watch?v=JdxEVCyb0eA.

🎥 **Video example**	🔍 **Sources and URLs for further information**
This example was filmed in **a teacher professional development session** 'Fractions Stimulus and Discussion'	This video is from Malawi's National Numeracy Programme (NNP), which was filmed in a classroom used for a Teacher Learning Circle (TLC). EdTech Hub, in collaboration with the NNP implementation team and with approval from the Ministry Directorate of Quality Assurance Services (DQAS) developed this video as part of a short series to support TLC peer facilitators in leading their sessions. This was part of an implementation research phase that took place during 2024 (↟Kanyoza et al., 2025). https://drive.google.com/file/d/1dquaABvxS-3SFOZ94HU6KtOI50SSb5gV/view?usp=sharing

📹 **Video example**	🔍 **Sources and URLs for further information**
The video ‘The multilingual class: about code-switching as an intentional teaching strategy’ from the TalkTogether—Our Conversations series is an **animated TPD video** — also available in Hindi.	English version ↑TalkTogether (2022) *The multilingual class: About code-switching as an intentional teaching strategy* [Video recording]. https://www.youtube.com/watch?v=jrCr9eafZ00 Hindi version ↑TalkTogether (2022) बहुभाषी कक्षा: कोड स्विचिंग एक साभिप्राय शिक्षण योजना के विषय में [Video recording]. https://www.youtube.com/watch?v=NWTS61c1ZCw Further information and training videos ↑TalkTogether (no date) *Multilingualism training films*. Retrieved 8 January 2026, from https://talktogether.web.ox.ac.uk/multilingualism-training-films

Content development tools

Using templates and tools makes the video design process easier and more efficient

Storyboards and script templates improve video coherence, clarify content for all production stakeholders, and make the process as efficient and cost-effective as possible. A storyboard is a set of sketches and/or descriptions that explain and visualise the scenes of a video (↑D'Angelo et al., 2022). A storyboard can be as simple as a table with a row for each scene and two columns — one for audio and one for visuals; or it can be quite detailed, specifying on-screen text, visual or graphic media, narration/audio or voiceover script, interaction instructions, and production and accessibility notes (↑Alster, 2025b; ↑Mangtani, 2024). Reviewing a storyboard allows your team to identify gaps and redundancies before moving into the production phase. It will tell you precisely what you will show and when. This means you can provide clear guidance to teachers or students being filmed and estimate how long filming should take. If using animation, a storyboard is essential for animators to understand what to produce.

A script provides more detail on what viewers will see and hear in each scene. Specifying the duration of each shot, location, equipment, and the people needed also makes the script a helpful tool for costing. Scripts should be concise and use a conversational style (↑Alster, 2025a; ↑Brame, 2016; ↑Connolly, 2025). The script can be used to conduct an initial pulse check of the video's clarity and coherence by testing it with members of the target audience before full production.

Both storyboards and scripts can be used to check the video length and ensure topics are presented in short segments to manage the cognitive load.

Scripts also enable tighter cost management by specifying the duration and location, as well as the equipment and actors/teachers/animation needed for each shot (↑Chauhan, 2024).

Costing has a reciprocal relationship with video design

Several design features and decisions will inform the cost of video production. At times, cost may influence production decisions, such as whether to use actual teachers, live narrators, animation or AI narration. Key aspects to consider when costing video production include:

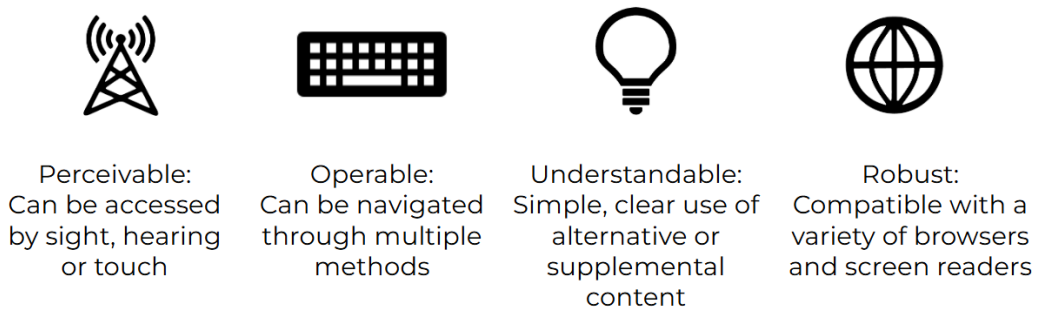
- Pre-production planning
- Actors/teachers, narrators
- Travel to and from location(s) or studio costs
- Equipment
- Post-production editing and piloting
- Video length
- Dissemination mechanism(s)

Inclusive design strategies

Inclusive TPD videos are accessible to all teachers and do not reinforce bias or stereotypes

This includes teachers with hearing or visual impairments, as well as multilingual teachers who need support accessing the delivery language. Inclusive videos also intentionally depict teachers, students, leaders, and community members without bias, avoiding the reinforcement of stereotypes about gender, disability, ethnic groups, religion, or any other status relevant to the context, e.g., orphan or nomadic status, caste, and so on. (↑Kaplan & Lewis, 2013). UNESCO highlights four principles for accessible web content: materials should be perceivable, operable, understandable, and, where possible, compatible with a variety of browsers and screen readers (↑Chambers, 2022, p. 5); see Figure 1 below.

Figure 1: Principles of accessibility for web content. Adapted from ↑Chambers, 2022



Simple accessibility measures, such as captions, alt text, and colour contrast, help ensure all viewers/teachers can fully access the TPD video content.

Closed captions are typically in the same language as the video and include all spoken words, as well as audio cues that help the viewer understand the video. For instance, captions typically include background noise, sound effects, audio cues, and speaker identification (↑Stanford University, no date). In addition to providing access for the hearing impaired, closed captions have been found to improve understanding among viewers from multilingual backgrounds (↑Vural, 2013).

Sign language interpreters are sometimes used as an inset in videos, to provide translation of spoken explanations into the local sign language.

Providing a video transcript can help viewers, with or without hearing impairments, review and process the script after viewing.

Strong colour contrast and adequate text size are

recommended to increase visual accessibility (↑NCDAE, 2025).

Alternative text, also referred to as '**alt text**', provides descriptions of images for screen readers. It can also be used when images fail to load due to technical difficulties. The United States National Center on Disability and Access to Education (↑NCDAE, 2025) suggests these tips for writing alternative text:

- Avoid words like 'picture of', 'image of', or 'link to'.
- Use the fewest number of words necessary.
- Explain the content and function of the image

Planning for inclusive representation helps to reduce stigma and harmful stereotypes

Precise decisions regarding representation will depend on the specific context for which the video is being produced. However, common aspects to consider include the representation of:

- Gender
- Ethnic, religious or community groups
- Persons with disabilities.

For example, it is important that people of all genders and people with and without disabilities are represented in leadership roles, actively participate in teaching and learning activities, and ask and answer questions. Avoid limiting representation to stereotypical roles only, like only women cleaning or making tea, or a student in a wheelchair as the only person with a visible disability.

For videos produced for multilingual contexts, consider the language(s) most commonly used by teachers and provide subtitles, closed captions, or transcripts either in the same language as the video script or in additional languages used by the target audience of teachers.

🔍**Box 2. Examples of elements of inclusive design in sample TPD videos. See Box 1 for full URLs and other details.**

Design elements to make the content accessible and representative in the sample videos, and ensure these differ from one video to another.

- **High colour contrast** for on-screen text is used in the Malawi National Numeracy Programme (NNP) TLC video on fractions.
- The 'Teaching large classes' video from Tanzania incorporates **closed captions in the video itself** in Swahili (the language spoken in the video).
- The OER4Schools and Talk Together — Our Conversations videos are configured so that YouTube **closed captions can be enabled or disabled** by viewers. Captions appear in the language spoken in the videos (in this case, English or Hindi).
- The OER4Schools homepage for the 'Teacher repeats' video from Zambia also includes a **short description of the video** and the full **transcript**.
- The FundaWande videos from South Africa, including the 'Higher number addition' video, use **closed captions to support multilingualism.** The captions provide English translation of the classroom lessons, which are in isiXhosa and Sepedi.
- The Talk Together — Our Conversations videos from India also subtly promote **respect for gender and cultural equality** by ensuring each video is a conversation between an equally knowledgeable female teacher and a male teacher. The videos feature both older and younger teachers, as well as students and families from different language and cultural groups, signalled by distinct clothing styles.

Cueing systems and enrichments

These strategies focus attention and enhance learning using carefully planned combinations of visual and audio elements, applying the principles of signalling and modality integration

Visual cueing

Several options can be used to visually focus attention on a specific part of a video frame, diagram or image. These include arrows or highlighting tools, blurring, freeze frames, and guided camera movement. Research in Indonesia (↑Revina et al., 2022) found that even details such as an instructor's eye gaze (when the instructor is being filmed) increase a video's effectiveness for teacher learning.

On-screen text

On-screen text can be used for much more than titles, section headers, and credits. Text overlays can highlight key aspects of practice or draw attention to a particular action or event (↑Brunvand, 2010). Important contextual information, such as background on the teacher, students, or the topic of study in the video, can also be conveyed through concise on-screen text. Visual overlays of text and images can reinforce key points aligned with your learning objective (↑Brame, 2016).

Audio cueing

Audio cueing includes speakers' stress and intonation, as well as music and sound effects. Studies have shown that pairing audio and visual cues can improve retention of important information (↑Mayer, 2021; ↑Xie, H. et al., 2019). Sound effects can range from a chime or other attention-getting cue to those that evoke a particular space, such as a classroom or playground. Essential considerations for audio cueing include the cultural nature of music and community-appropriate sounds/instruments to avoid aversion and copyright issues with pre-recorded or AI-produced content.

Voiceover

In addition to highlighting key points, a voiceover can provide contextual information. One of the most important uses of voiceover in TPD videos is teacher commentary (↑Brunvand, 2010). Teacher commentary provides insight into teachers' thinking

and the factors they consider when making decisions in a particular moment. Such commentary can be provided as an introduction to a scene or interspersed throughout a classroom practice scene. Another common use of voiceover is narration, which provides background on a topic or scene, offers explanations, and asks questions and prompts.

Voiceover can be recorded by the teacher(s) appearing in a video, by a professional actor, or by using AI-generated text-to-speech tools, if linguistically appropriate.

Images or diagrams

Images or diagrams can help explain a key concept. A large-scale study of MOOCs (Conner-Simons, 2014) recommends pausing when diagrams are shown to give viewers time to process the information. Blogs by educational video creators provide more specific guidance on video diagrams, such as using relevant icons and symbols, using minimal text, and consistent colour coding to highlight concepts (↑Brame, 2016).

Embedded hyperlinks

Including hyperlinks within or alongside videos can provide teachers with access to additional resources, background information, or alternative perspectives on a topic (↑Brunvand, 2010). Embedding hyperlinks could be used strategically to differentiate content for teachers, i.e. by providing hyperlinks to different resources based on subject matter, level, or other criteria, so that teachers can use the resources most relevant to their needs.

🔍**Box 3. Examples of various cueing systems in sample TPD videos. See Box 1 for full URLs and other details.**

The sample videos each use various cues to direct teachers to notice particular elements.

- At key points in the 'fractions' video from the Malawi NNP, a bright yellow **on-screen textbox** highlights pedagogical aspects of the facilitator's actions in the video.
- The 'Teaching large classes' video from Tanzania utilises a **narrator's voiceover** to highlight certain teacher practices and their rationale. At the end of the video, the **key strategies are emphasised using on-screen text**. In addition, a **locally inspired** marimba refrain is used as an **audio cue** when the teacher in the video moves from one strategy to another.
- In the 'Higher number addition' video from FundaWande in South Africa, the use of a camera **zooming in, voiceover, and on-screen text is coordinated** to draw attention to specific practices.
- Near the end of the 'Multilingualism ... code-switching' video by Talk Together in India, **a visual diagram** of ladders is used with a **prompt for interactive teacher reflection**.

Post-production editing

Piloting or formative evaluation of the video with test groups is vital for an effective product

Once your video has been filmed and edited, before finalisation and publishing, you should pilot it with test groups (↑USAID, 2020). If you intend the videos to be used by teachers across different grades, geographies, or levels of experience, ensure you test them with representatives from all target groups.

This formative evaluation assesses how the videos are received and used (e.g., whether users can access and use them as intended) and how the content can be improved before

broadcasting or dissemination (↑USAID, 2020). Seek viewer input on both the effectiveness, i.e. how well the intended message(s) were conveyed, and any unexpected adverse effects, such as causing offence to some viewers, which could break down trust.

For example, piloting videos designed to support peer facilitators of teacher learning circles in Malawi showed that not all facilitators used them in their own Teacher Learning Circles effectively. The pilot experience enabled the design team to develop an infographic to support users of the video before disseminating the materials. (↑Kanyoza et al., 2025).

Field-testing with teachers with disabilities can provide valuable feedback to improve content and modality inclusivity (↑Chambers & Varoglu, 2023). If videos are not piloted, you risk wasting time and money on video production.

Setting aside time and budget for multi-perspective post-production editing improves video effectiveness

Minimal editing is recommended prior to the pilot, in case substantial changes are required based on the formative evaluation. Following the pilot, you should allocate time and budget to make any necessary changes to improve the video's effectiveness. This may include changes to signalling features, such as voiceovers and on-screen text, accessibility features, and/or film editing.

Involving three to four different perspectives in post-production editing can improve quality. This may include the views of experts in visuals, audio, TPD, and the local education context.

Areas for further exploration

This learning brief highlights key considerations for producing TPD instructional videos in and for LMIC contexts. Drawing on principles of instructional design and tailoring videos to the cultural, school, and technological contexts of the target teachers will help ensure the quality, relevance, and accessibility of TPD videos.

The fact that most of the research and resources underpinning this brief come from high-income countries indicates that there are many areas for further exploration of effective TPD videos in LMIC contexts. This section highlights areas which would benefit from further research.

1. Investigations of various design choices on teacher engagement and video effectiveness

While there is general consensus that, for online consumption, shorter videos focused on a clear learning objective are more effective regardless of country context, numerous aspects of video design require further evidence across different LMIC contexts. For instance, how do teachers respond to the use of animation or studio-filmed scenes versus videos recorded in actual schools and classrooms? The former may save considerable time and cost in video production, but if teachers do not take it as seriously or see themselves and their classrooms reflected in the TPD video, will it be as effective at changing teacher practices? On the contrary, may teachers find animations more engaging and more applicable across a range of classroom contexts?

The use of embedded hyperlinks to provide teachers with related materials or resources alongside a video is a logical enhancement; however, evidence on the extent to which teachers use the links, their ease of access to the resources, and any effects on teacher learning would be helpful in informing future projects. Similarly, the use of generative AI images, narration, or animation in creating TPD videos, and their effectiveness in changing teacher practices, have not yet been widely explored in LMICs.

2. Effectiveness of using video over other media

While the internet, learning platforms, and social media have made video use ubiquitous, it is still worth investigating the extent to which teachers understand and retain the target learning from videos, and comparing this with their understanding and retention when the same learning is conveyed by other means. This could help determine when video is most useful, and whether audio, text, printed materials, or other media may be just as effective.

3. Further investigation of technical aspects relevant to LMIC teachers' contexts

This brief highlights the need to consider multiple technical factors to ensure videos are delivered in a format teachers can easily use. Further evidence is needed on the optimal TPD video length and specifications for different dissemination channels, such as SMS, WhatsApp, and learning management systems.

Further investigation into copyright issues, video availability, paywalls, open-access intellectual property, and related concerns is also recommended.

Resources

Templates and checklists

The sample templates and checklists linked below can be used or adapted in the design phase of video production. These were created using information from sources reviewed for this learning brief.

🗂️ **Sample templates and checklists for use during TPD video production**.

Other resources with guidance and tools

The resources listed here provide guidance and free tools for checking the accessibility of your content:

1. Kaplan, I., & Lewis, I. (2013). ***Promoting inclusive teacher education: Methodology***. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000221037. This resource is available in print and online in English, Urdu, and Nepali.
2. Collins, A. T. R. C. 300 O. T. B. 1573 C. D. F. & Colorado State University College of Health and Human Sciences. (n.d.). **Color contrast tools**. ***Accessibility by Design***. Retrieved 8 January 2026, from https://www.chhs.colostate.edu/accessibility/best-practices-how-tos/color-contrast-tools/. This webpage provides links to free tools that allow users to check if their content meets accessibility standards for color contrast.
3. The National Center on Disability and Access to Education (NCDAE). (n.d.). ***Creating accessible electronic content***. Retrieved 8 January 2026, from https://ncdae.org/resources/cheatsheets/electronic-content.php
4. Alasuutari, H. K., Thomas, C. J., Powers, S. M., McDonald, L. S., & Waite, J. (2020). ***Inclusive Education Resource Guide: Ensuring inclusion and equity in education***. World Bank Group. http://documents.worldbank.org/curated/en/798681600707797522

References

These references are available digitally in our evidence library at https://docs.edtechhub.org/lib/J52FF963

Aleksandronets, T. (2025, July 23). Educational and training video production ultimate guide. *Blue Carrot*. https://bluecarrot.io/blog/educational-and-training-video-production-ultimate-guide/. (details)

Alasuutari, H. K., Thomas, C. J., Powers, S. M., McDonald, L. S., & Waite, J. (2020). *Inclusive Education Resource Guide: Ensuring inclusion and equity in education*. World Bank Group. http://documents.worldbank.org/curated/en/798681600707797522. (details)

Alster, Kevin. (2025a, October 13). How to create effective educational videos in 5 minutes. *Synthesia*. https://www.synthesia.io/learn/training-videos/educational-video#5-common-types-of-educational-videos. (details)

Alster, Kevin. (2025b, October 13). How to write a video script. *Synthesia*. https://www.synthesia.io/post/how-to-write-a-video-script. (details)

Bantanuka, W. (2025, January 23). *Teaching Large Class* [Video recording]. Available from https://www.youtube.com/watch?v=JdxEVCyb0eA. (details)

Beheshti, M., Taspolat, A., Kaya, O. S., & Sapanca, H. F. (2018). Characteristics of instructional videos. *World Journal on Educational Technology: Current Issues*, *10*(1), 061–069. https://doi.org/10.18844/wjet.v10i2.3418. (details)

Bohm, I., & Lindblom, Cecilia. (2024). Challenges for video research in complex contexts: Experiences from Home Economics as an exemplar of a practical school subject. *International Journal of Research & Method in Education*, *48*(3), 225-238. https://doi.org/10.1080/1743727x.2024.2378692. (details)

Bohonos, J., Chuma, P., Lutomia, A. N., Henderson, E. W., Pittendrigh, B. R., & Bello-Bravo, J. (2022). Program planning and animated videos as learning tools in Sub-Saharan Africa: A case study of an international educational collaboration. *International Journal of Adult Education and Technology*, *13*(1), 1–20. https://doi.org/10.4018/ijaet.296399. Available from https://doi.org/10.4018/IJAET.296399. (details)

Brame, C. J. (2016). Effective educational videos: Principles and guidelines for maximizing student learning from video content. *CBE Life Science Education*, *15*(4), 1–6. https://doi.org/10.1187/cbe.16-03-0125. Available from https://pmc.ncbi.nlm.nih.gov/articles/PMC5132380/pdf/es6.pdf. (details)

Brunvand, S. (2010). Best practices for producing video content for teacher education. *Contemporary Issues in Technology and Education*, *10*(2). https://citejournal.org/volume-10/issue-2-10/current-practice/best-practices-for-producing-video-content-for-teacher-education. (details)

Chambers, D. (2022). *Accessible Open Educational Resources (OER): Briefing Paper* [Briefing]. UNESCO. Available from https://unesdoc.unesco.org/ark:/48223/pf0000380471?posInSet=1&queryId=6d53b110-02da-47cd-98f3-3673ae6c0116. (details)

Chambers, D., & Varoglu, Zeynap. (2023). *Revised Guidelines on the Inclusion of Learners with Disabilities in Open and Distance Learning (ODL)*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000387981.locale=en. (details)

Chauhan, Pooja. (2024, February 13). Demystifying training video production costs: A comprehensive guide. *Training*. https://trainingmag.com/demystifying-training-video-production-costs-a-comprehensive-guide/. (details)

Collins, A. T. R. C. 300 O. T. B. 1573 C. D. F. & Colorado State University College of Health and Human Sciences. (n.d.). Color contrast tools. *Accessibility by Design*. https://www.chhs.colostate.edu/accessibility/best-practices-how-tos/color-contrast-tools/. (details)

Conner-Simons, A. (2014, July 28). What 6.9 million clicks tell us about how to fix online education. *MIT News*. https://news.mit.edu/2014/what-69-million-clicks-tell-us-about-how-fix-online-education#:~:text=Amidst%20all%20the%20arguments%20about,ones%20crafted%20for%20online%20audiences%29. (details)

Connolly, M. (2025, April 25). Video production in education: Essential strategies for effective learning resources. *Educational Voice*. https://educationalvoice.co.uk/video-production-in-education/. (details)

D'Angelo, S., Hennessy, S., Kreimeia, A., Koomar, S., Cao, L., McIntyre, N., Brugha, M., & Zubairi, A. (2022). *Technology Use for Teacher Professional Development in Low- and Middle-Income Countries: Recommendations for policy from a systematic review* [Policy Brief]. EdTech Hub. https://doi.org/10.53832/edtechhub.0080. Available at https://docs.edtechhub.org/lib/S3LS22H3. (details)

Funda Wande. (2023, November 24). *M.2.3 Higher number addition using manipulatives* [Video recording]. Available from https://www.youtube.com/watch?v=weTFgwFtL-U. (details)

Fyfield, Matthew, Henderson, Michael, & Phillips, Michael. (2022). Improving instructional video design: A systematic review. *Australasian Journal of Educational Technology*, *38*(3), 155–183. https://doi.org/10.14742/ajet.7296. Available from https://ajet.org.au/index.php/AJET/article/view/7296. (details)

Gaible, E., & Burns, M. (2005). *Using technology to train teachers: Appropriate uses of ICT for teacher professional development in developing countries*. Available from https://eric.ed.gov/?id=ED496514. (details)

Ibrahim, M., Antonenko, P. D., Greenwood, C. M., & Wheeler, D. (2012). Effects of segmenting, signalling, and weeding on learning from educational video. *Learning, Media and Technology*, *37*(3), 220–235. https://doi.org/10.1080/17439884.2011.585993. Available from https://www.tandfonline.com/doi/full/10.1080/17439884.2011.585993. (details)

International Development Research Centre. (2024). *Teacher Professional Development: A Research Synthesis* [International Development Research Centre]. International Development Research Centre. Available from https://www.globalpartnership.org/node/document/download?file=document/file/2025-06-gpe-kix-teacher-professional-development-research-synthesis.pdf. (details)

Kanyoza, C., Plaut, D., & Kumasewera, P. (2025). *Using Videos to Support Facilitators in Teacher Learning Circles* [Technical Report]. EdTech Hub. https://doi.org/10.53832/edtechhub.1149. Available from https://docs.edtechhub.org/lib/N3DEUW9N. Available under Creative Commons Attribution 4.0 International. (details)

Kaplan, I., & Lewis, I. (2013). *Promoting Inclusive Teacher Education: Materials*. UNESCO. Available from https://unesdoc.unesco.org/ark:/48223/pf0000221036?posInSet=2&queryId=4c3cd0d1-d812-4048-93a0-8f514e551e55. (details)

Koomar, S., Massam, W., Chachage, K., Anthony, G., Mrope, W. J., Malibiche, M., Mutura, E., Adam, T., Hennessy, S., Mtenzi, F., Komba, A., Mwakabungu, F., Paskali, J. H., & Nkya, H. (2023). *TCPD in Tanzania: Design-Based Implementation Research Cycle 1 Recommendations Policy Brief* [Policy Brief]. EdTech Hub. https://doi.org/10.53832/edtechhub.0166. Available from https://docs.edtechhub.org/lib/HUR5C9QN. Available under Creative Commons Attribution 4.0 International. (details)

Lok, L., Schellings, G., Brouwer, N., & Brok, P. D. (2018). Investigating effects of using digital video in teacher training in Cambodia. *Journal of Technology and Teacher Education*, *26*(2). https://www.learntechlib.org/primary/p/178451/. (details)

Lowe, R. K. (2001). *Beyond "eye-candy": Improving learning with animations*. Apple University Consortium Academic and Developers Conference, Townsville, Queensland, Australia. (details)

Lowe, R. K., & Schnotz, W. (2014). Animation principles in multimedia learning. In R. E. Mayer (Ed.), *The Cambridge Handbook of Multimedia Learning* (2nd ed., pp. 513–546). Cambridge University Press. https://doi.org/10.1017/CBO9781139547369.026. Available from https://www.cambridge.org/core/product/identifier/9781139547369%23c03520-22-1/type/book_part. (details)

Mangtani, A. J. (2024). Storyboarding fundamentals. In *Instructional Design Unleashed. Design Thinking*. Apress, Berkeley, CA. https://doi.org/10.1007/979-8-8688-0416-8_8. (details)

Mayer, R. E. (2021). Evidence-based principles for how to design effective instructional videos. *Journal of Applied Research in Memory and Cognition,10*(2), 229–240. https://doi.org/10.1016/j.jarmac.2021.03.007. (details)

Mayer, R. E. (2024). The past, present, and future of the cognitive theory of multimedia learning. *Educational Psychology Review*, *36*(8). https://doi.org/10.1007/s10648-023-09842-1. Available from https://link.springer.com/content/pdf/10.1007/s10648-023-09842-1.pdf. (details)

Mayer, R. E., Fiorella, L., & Stull, A. (2020). Five ways to increase the effectiveness of instructional video. *Educational Technology Research and Development*, *68*(3), 837-852. https://doi.org/10.1007/s11423-020-09749-6. (details)

McAleavy, T., Hall-Chen, A., Horrocks, S., & Riggall, A. (2018). *Technology-Supported Professional Development for Teachers: Lessons from developing countries*. Education Development Trust. https://www.educationdevelopmenttrust.com/our-research-and-insights/research/technology-supported-professional-development-for-. (details)

National Center on Disability and Access to Education (NCDAE). (2025). *Creating Accessible Electronic Content*. https://ncdae.org/resources/cheatsheets/electronic-content.php. (details)

OER in Education. (n.d.). *Teacher repeats and clarifies* [Video recording]. Retrieved January 8, 2026, from https://oer.opendeved.net/wiki/Video/Eness_vertebrates_4.mp4#Background_on_this_video. (details)

Puentedura, R. (2006). *Transformation, technology, and education Part 1*. https://hippasus.com/resources/tte/puentedura_tte.pdf. (details)

Quota, M., Cobo, C., Patil, A., & Wilichowski, T. (2022). *Evidence Matrix (An Annex to the Effective Teacher Professional Development Using Technology-Based Strategies from across the Globe to Enhance Teaching Practices. A Guidance Note)*. World Bank Group. https://documents1.worldbank.org/curated/en/099600105272224090/pdf/P1742520e20f48051081a90f9a4f1c97a78.pdf. (details)

Revina, S., Pramana, R. P., Fillaili, R., & Suryadarma, D. (2022). *Systemic Constraints Facing Teacher Professional Development in a Middle-Income Country: Indonesia's experience over four decades*. University of Oxford. https://doi.org/10.25446/oxford.21107782.v1. Available from https://portal.sds.ox.ac.uk/articles/preprint/Systemic_Constraints_Facing_Teacher_Professional_Developmentin_a_Middle-Income_Country_Indonesia_s_Experience_Over_Four_Decades/21107782/1. (details)

Scientific Animations Without Borders. (n.d.). *SAWBO Video Library*. Retrieved January 7, 2026, from https://sawbo-animations.org/. (details)

Smith, D., McLaughlin, T., & Brown, I. (2012). 3-D computer animation vs. Live-action video: Differences in viewers' response to instructional vignettes. *Contemporary Issues in Technology and Teacher Education,12*(1). https://citejournal.org/volume-12/issue-1-12/general/3-d-computer-animation-vs-live-action-video-differences-in-viewers-response-to-instructional-vignettes. (details)

Stanford University. (n.d.). *Accessiblity Concepts: Captions and audio descriptions*. Office of Digital Accessibility. Retrieved July 30, 2025, from https://uit.stanford.edu/accessibility/concepts/captioning. (details)

Susantini, E., Faizah, U., Yonata, B., Kurniasari, I., & Suryanti. (2018). Using instructional video to improve awareness of scientific approach in science classroom. *Asia-Pacific Forum on Science Learning and Teaching*, *19*(1), 1–22. https://www.eduhk.hk/apfslt/download/v19_issue1_files/susantini.pdf. (details)

Swai, C., Chachage, K., Koomar, S., Hennessy, S., Massam, W., Komba, A., Mwakabungu, F., Paskali, J. H., Anthony, G., Mrope, W. J., Malibichi, M., Mutura, E., Mrosso, V., Komba, P., Nkya, H., Mtenzi, F., Adam, T., & Simmons, H. (2024). *TCPD in Tanzania: Phase 2 Round 1 Recommendations* [Policy Brief]. EdTech Hub. https://doi.org/10.53832/edtechhub.1060. Available from https://docs.edtechhub.org/lib/ZAKFGN9M. Available under Creative Commons Attribution 4.0 International. (details)

TalkTogether. (2022, October 13). *The multilingual class: about code-switching as an intentional teaching strategy* [Video recording]. Available from https://www.youtube.com/watch?v=jrCr9eafZ00. (details)

TalkTogether. (2022, October 19). बहुभाषी कक्षा: कोड स्विचिंग एक साभिप्राय शिक्षण योजना के विषय में [Video recording]. Available from https://www.youtube.com/watch?v=NWTS61c1ZCw. (details)

TalkTogether. (n.d.). *Multilingualism training films*. Retrieved January 8, 2026, from https://talktogether.web.ox.ac.uk/multilingualism-training-films. (details)

Thinley, S. (2024). *What Should Ministries of Education Prioritise When Crafting Their Edtech Strategies?* [Learning Brief]. EdTech Hub. https://doi.org/10.53832/edtechhub.1054. Available from https://docs.edtechhub.org/lib/78VE3959. Available under Creative Commons Attribution 4.0 International. (details)

USAID. (2020). *Delivering Distance Learning in Emergencies: A review of evidence and best practice*. (details)

Vural, O. F. (2013). The impact of a question-embedded video-based learning tool on E-learning. *Educational Sciences: Theory & Practice*, *13*(2), 1315–1323. https://eric.ed.gov/?id=EJ1017292. (details)

Winslett, G. (2014). What counts as educational video?: Working toward best practice alignment between video production approaches and outcomes. *Australasian Journal of Educational Technology*, *30*(5). https://doi.org/10.14742/ajet.458. Available from http://ajet.org.au/index.php/AJET/article/view/458. (details)

World Bank. (2016). *Vietnam Escuela Nueva Impact Evaluation: Volume 1 Methodology and Instruments*. World Bank Group. (details)

World Bank. (2022, August 30). *Teach primary: Helping countries to measure effective teaching practices*. World Bank Group. https://www.worldbank.org/en/topic/education/brief/teach-helping-countries-track-and-improve-teaching-quality. (details)

Xie, H., Meyer, R. E., Wang, F., & Zhou, Z. (2019). Coordinating visual and auditory cueing in multimedia learning. *Journal of Educational Psychology*, *111*(2), 235–255. https://doi.org/10.1037/edu0000285. (details)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