

Selecting and Integrating High-Quality Videos into Teacher Education

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ABSTRACT

High leverage practices (HLPs) in special education are 22 critical skills related to collaboration, assessment, social/emotional/behavioral, and instructional domains. These practices are supported by research and recommended for use in PK-12 classrooms serving students with and without disabilities. Given the vast instructional modalities used within teacher education (i.e., face-to-face, online synchronous, online asynchronous, or hybrid flexible), it is important to have an array of resources that support teacher candidates' knowledge of HLPs, in addition to providing a glimpse at HLP implementation in authentic contexts. Videos are an advantageous option for achieving both goals; however, there are important considerations for maximizing the effectiveness of this learning support. Therefore, the aim of this article is to provide teacher educators with guidance on selecting and integrating videos to address critical HLP content. With a focus on leveraging effective design elements, this article describes the benefits of using video to address HLP content in special education teacher preparation programs, and offers guidance on integrating video within coursework through the use of a multimedia instructional tool called Content Acquisition Podcasts (CAPs).

KEYWORDS

Content acquisition podcasts, high leverage practices, Mayer's multimedia design, teacher education, videos

Teacher preparation programs aim to provide high-quality instructional training for teacher candidates entering the workforce, as an expectation of novice teachers is to successfully improve student outcomes upon entering the field (Nagro, 2020). However, teacher preparation is often insufficient, with novice teachers reporting feeling inadequately prepared to serve the diverse needs of students with disabilities (Gunpinar & Mackin, 2020; Tygret, 2018). To address this issue and improve novice teachers' early-career practice, scholars in the field of special education teacher preparation developed extensive policy recommendations for teacher education programs (McLeskey & Brownell, 2015). These recommendations include the development of an instructional framework,

referred to as High Leverage Practices (HLPs; McLeskey et al., 2019), which offers guidance on key practice priorities for special education teacher preparation coursework.

The HLP framework comprises 22 instructional strategies divided across four domains: collaboration, assessment, social/emotional/behavioral, and instruction (McLeskey et al., 2019). To appropriately address students' wide range of academic (e.g., decoding, problem-solving) and behavioral (e.g., organization, social skills) needs upon entering the field, special education teacher educators must prepare teacher candidates to apply HLPs across a variety of settings (e.g., general education classroom, resource room), disability categories (e.g., emotional behavioral disorders, traumatic brain injury), grade levels (e.g., elementary, secondary),

and content areas (e.g., reading, math). Though recommended that all special education teacher preparation programs instruct teacher candidates in using HLPs to ensure they are equipped with fundamental skills necessary for supporting students with disabilities in K-12 learning environments (Riccomini et al., 2017), consideration of the variety of modalities in which teacher preparation occurs may impact this goal is a must.

Teacher educators may deliver teacher preparation instruction through face-to-face, online synchronous, online asynchronous, or hybrid flexible (i.e., hyflex) modalities. Face-to-face consists of the traditional instructional approach, wherein teacher educators train teacher candidates in a physical classroom, providing live lectures and opportunities to apply new knowledge through whole-/small-group discussion and other activities (e.g., role play). Most closely related to face-to-face instruction is online synchronous instruction, which occurs in real-time, allowing teacher candidates and instructors to interact in a virtual digital platform. Learning methods may include live lectures, small-group breakout discussions, and whole-group discussions utilizing chatbox features (Day & Verbiest, 2021). Asynchronous online instruction occurs in a specific digital platform but not within a particular timeframe. Instead, course participants may access pre-recorded video lectures, participate in independent activities (e.g., responding to a discussion board prompt), or collaborate through document-sharing platforms (Day & Verbiest, 2021). Lastly, the hybrid flexible (hyflex) option combines online and face-to-face instructional modalities and methods. The goal of hyflex is to serve all students with a limited set of resources (e.g., time and space), providing flexible setting options that meet

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varying participation needs (Beatty, 2019). Some hyflex models require course participants to switch between settings, while others ask participants to select one setting for the course duration.

Unfortunately, teacher educators face challenges with providing instruction across these various modalities (Evmenova et al., 2021). For example, considering the various contextual factors (i.e., setting, grade level, disability groups, content area) that special educators must account for when implementing HLPs, it can be challenging to explicitly describe or provide instructions for efficacious implementation. Further, while field placements offer an opportunity to view the realities of the classroom, teacher candidates are individually assigned to many different placements, making it challenging to provide a common understanding of HLPs discussed in coursework.

One way to provide shared learning experiences centered around HLPs in special education teacher preparation is

through the use of videos. Videos can be used as a vehicle to support teacher candidates’ conditional or contextual understanding of HLPs. However, explicitly teaching steps involved with HLP implementation as a preface to showing videos helps ensure that teacher candidates are receiving the declarative and procedural knowledge necessary for implementing HLPs with efficacy. One powerful tool that combines explicit instruction and video to promote teacher candidates’ knowledge and implementation of HLPs and other evidence-based practices is content acquisition podcasts for teachers with embedded modeling videos (CAP-TVs). The following sections describe the benefits of using video in special education teacher preparation and offer guidance on accessing or developing CAP-TVs to support video integration across various course modalities.

Videos in Teacher Education

Videos are a research-supported strategy in teacher education as they provide an authentic, immersive experience as a means for learning, viewing, and exploring instructional and behavior management strategies (Beerer, 2017; Leko et al., 2015). Specifically, videos help teacher candidates ‘see’ into a classroom and view instructional practices in action, making the nuances of daily classroom interactions more visible to teacher candidates (Budin et al., 2020; Brunvand, 2010; Vernon-Dotson et al., 2014). Using videos as an instructional tool, teacher candidates can view and reflect on real classroom situations from a diverse range of settings (Hixon & So, 2009). Stockero (2009) found that integrating video into preservice mathematics curriculum developed skills that prompted students to be more focused with their observations and reflective on student thinking. Moreover, videos offer shared experiences for large groups

TABLE 1: Ready-Made CAP-TVs for Use in Special Education Teacher Preparation Courses

CAP-TV TITLES	ACCESS LINK
High-Leverage Practices (HLPs) in Special Education	
HLP Series Intro Video	https://youtu.be/y0iGKOq8UXk
Clarifying the Relationship Between HLPs and EBPs	https://youtu.be/gYys-uuleMI
HLP #7: Establish a Consistent, Organized, and Respectful Learning Environment	https://youtu.be/F-y48KAijbE
HLPs #8 & #22: Provide Positive and Constructive Feedback to Guide Student Learning and Behavior	https://youtu.be/N0T5zolYri4
HLP #11: Goal Setting	https://youtu.be/A07qcWXjme0
HLP #12: Systematically Design Instruction Toward a Specific Learning Goal	https://youtu.be/vqD_GpYJ2rY
HLP #13: Make Adaptations	https://youtu.be/JYxfJTf39CY
HLP #14: Use Cognitive and Metacognitive Strategies	https://youtu.be/jPmBztMkVeQ
HLP #15: Use Scaffolded Supports	https://vimeo.com/625515844
HLP #16: Use Explicit Instruction	https://youtu.be/ESFVNzihOZ0
HLP #17: Use Flexible Grouping	https://youtu.be/WmFz-1PXo8k
HLP #18: Use Strategies to Promote Active Student Engagement	https://youtu.be/_pl7cD3e0aQ
HLP #19: Use Assistive and Instructional Technologies	https://youtu.be/BlvcdB70aE0
HLP #20: Provide Intensive Instruction	https://youtu.be/hHYD9nYE8al
Effective Vocabulary Instruction	
Student-Friendly Definitions	https://vimeo.com/444031616
Using Examples and Non-Examples	https://vimeo.com/448122821
Teach Morphological Word Parts	https://vimeo.com/448389509
Provide Demonstrations	https://vimeo.com/448730569
Evidence-Based Practices for Supporting Students with ASD	
Reinforcement	https://vimeo.com/480346574

of teacher candidates, as they can view and discuss classroom interactions and instructional practices together (Hixon & So, 2009; Marsh & Mitchell, 2014; Youens et al., 2014). Discussing new understandings as a collective group with videos can also promote more reflective and focused observations, as candidates build deeper connections between the pedagogy they engage with through coursework and the various contextual factors involved with implementation (Coffey, 2014; Youens et al., 2014). Compared to written descriptions, videos also provide a more concrete example of the intended outcomes for implemented strategies (Hiebert et al., 2002). With video, a teacher candidate can watch classroom events or instruction unfold and view the scenario as many times as needed to better understand a strategy (Snoeyink, 2010). Essentially, teacher candidates observe expert teachers implementing a practice, use mental models to reconstruct their newly-acquired practical knowledge in the context of their own classroom, and then reproduce that practice in their own classroom context (Bandura, 1977).

Though video provides many possibilities for teacher education, it must be noted that not all instructional videos are created equally. Teacher educators should leverage high-quality videos in conjunction with explicit instruction to best support teacher candidates' HLP knowledge and skill development. One tool that comprises these necessary components is Content Acquisition Podcasts for teachers with embedded modeling videos (CAP-TVs).

CONTENT ACQUISITION PODCASTS FOR TEACHERS WITH EMBEDDED MODELING VIDEOS (CAP-TVS)

CAP-TVs are multimedia instructional vignettes developed to support

teacher candidates' factual and conceptual understanding of evidence-based instructional practices (Kennedy et al., 2017). Each CAP-TV begins with a concise introduction to the instructional practice of focus—including a brief research-based explanation of why teachers should learn about and use the practice—offering the declarative knowledge that helps teachers understand what the practice is. Next, teachers are provided with procedural knowledge, or the how of a practice, as the components required for efficacious implementation are explicitly defined. Finally, to better understand when a strategy should be used, every CAP-TV concludes with an embedded video clip of an expert teacher implementing the practice in an authentic context, providing some conditional knowledge that teacher candidates need to begin implementing it themselves. Examples of CAP-TV content include HLPs, vocabulary instruction, and other instructional practices (see Table 1).

Design and Delivery of CAP-TVs

Undergirding the design and delivery of CAP-TVs are core elements of explicit instruction (Archer & Hughes, 2011) and a set of multimedia instructional design principles associated with Mayer's (2021) Cognitive Theory of Multimedia Learning (CTML). Further, a video clip of an expert teacher implementing the target practice in an authentic context is embedded at the end of a CAP-TV, drawing upon Bandura's (1977) social learning theory. These theoretical and applied components comprising CAP-TVs work in tandem to make new information transparent to learners while promoting engagement throughout the learning process. Provided below is a detailed description of the three CAP-TV components.

Explicit Instruction. Explicit

instruction within the context of HLPs is “an approach to instruction that is systematic, direct, engaging, and success-oriented” (Riccomini et al., 2017, p. 22). In other words, explicit instruction is a framework comprising research-based instructional strategies which are used in combination when designing and delivering a lesson to reduce ambiguity or complexity of new information and keep learners actively engaged throughout the learning process (Archer & Hughes, 2011; Hughes et al., 2017).

Further, explicit instruction constitutes one of the HLPs for inclusive classrooms (HLP #16: *Use Explicit Instruction*; McLeskey et al., 2019) that should be incorporated into teacher preparation coursework. The various elements of explicit instruction can be organized into three general categories—content, design, and delivery (Hughes et al., 2017). While every CAP-TV may not include all explicit instruction elements found across these three categories, there are several key elements that should always be incorporated in either case.

When designing CAP-TVs, teacher educators should optimize instructional time by (a) developing organized and focused lessons, (b) sequencing the presentation of practices in a logical manner, (c) segmenting complex skills into smaller steps, (d) focusing on the most critical components of each skill, and (e) providing examples of practice implementation to help contextualize the presented information. In general, teacher educators should keep a brisk pace and use clear, consistent, and concise language throughout CAP-TV instruction. Further, a video clip is incorporated at the end of a CAP-TV lesson, showing teacher candidates how expert teachers implement the target practice in an authentic context. Teacher educators may also incorporate op-

portunities to respond (OTRs) throughout the presentation to promote active engagement. Incorporating certain types of OTRs can also offer a scaffold for candidates' learning. Questioning that incorporates cognitive routines (e.g., “How is this *similar to or different from* other practices we've learned about?”), for instance, helps learners to organize information into their preexisting schemas. These core elements of explicit instruction further align and work in tandem with the CTML and its associated design principles (Mayer, 2021).

Cognitive Theory of Multimedia Learning (CTML) and Associated Design Principles. A set of design principles for multimedia presentations, described in the CTML (Mayer, 2021), are used as technical guidelines for the formatting of CAP-TVs. The CTML posits that creators should develop instructional presentations utilizing multimedia in a way that limits the amount of extraneous auditory and visual information being conveyed and interpreted to reduce learners' cognitive load. To elaborate further, as teachers provide instruction using multimedia tools, they typically share information verbally while displaying some combination of text and imagery on a board or through a projector. This multimodal information enters and is processed through visual and auditory channels connected to the brain before reaching the working memory system for further processing. Once in the working memory system, students mentally sort and connect the new information with prior related content for eventual storage in and later retrieval from their long-term memory (Smith et al., 2016). However, the CTML posits that the presentation of too much text, imagery, or verbal content at once may overwhelm a students' information processing system, and critical concepts can get lost in

FIGURE 1: Instructional Design Principles of Mayer’s (2021) Cognitive Theory of Multimedia learning

DESIGN PRINCIPLE	DESCRIPTION	PRINCIPLE CHECKLIST
Reduce extraneous processing		
Coherence (N = 18; ES = 0.86)	Avoid irrelevant or extraneous information from the material	<input type="checkbox"/> All text is necessary. <input type="checkbox"/> Avoid distracting background noise
Signaling (N = 15; ES = 0.69)	Cues are added that highlight the organization of content.	<input type="checkbox"/> Headings are used to start new sections. <input type="checkbox"/> Emphasize keywords visually and vocally. <input type="checkbox"/> Graphic organizers are integrated.
Redundancy (N = 5; ES = 0.72)	In fast-paced lessons, graphics and narration are preferred to graphics, narration, and text.	<input type="checkbox"/> Text is presented only when the speaker is not narrating a graphic
Spatial contiguity (N = 9; ES = 0.82)	Corresponding words and images are presented near one another.	<input type="checkbox"/> Text is placed near the corresponding image if it is used for emphasis.
Temporal contiguity (N = 8; ES = 1.31)	Corresponding words and images are presented simultaneously.	<input type="checkbox"/> Text matches what is being said. <input type="checkbox"/> Images match what is being said.
Manage essential processing		
Segmenting (N = 7; ES = 0.67)	Presentations are broken into smaller parts.	<input type="checkbox"/> Content is appropriately chunked. <input type="checkbox"/> One new understanding is presented at a time.
Pre-training (N = 10; ES = 0.78)	Background knowledge needed for understanding new concepts is reviewed.	<input type="checkbox"/> Material is previously introduced. <input type="checkbox"/> Acronyms are defined prior to being used. <input type="checkbox"/> Referenced people are introduced.
Modality (N = 18; ES = 1.00)	Pairing images with spoken words are preferred to printed words.	<input type="checkbox"/> All text with pictures is necessary. <input type="checkbox"/> Picture captions are read aloud.
Foster generative processing		
Personalization (N = 13; ES = 1.00)	Speech should reflect a conversational style rather than a formal style.	<input type="checkbox"/> The tone of the speaker is casual. <input type="checkbox"/> The speaker uses a clear and not monotone voice.
Voice (N = 6; ES = 0.74)	A human voice is preferable to a computer-generated voice.	<input type="checkbox"/> The speaker is a human voice.
Embodiment (N = 16; ES = 0.58)	If using on-screen characters to present material, these characters should embody human characteristics to support learning.	<input type="checkbox"/> Visual of the speaker incorporates movement. <input type="checkbox"/> If the visual is a cartoon, there should be human-like movement. <input type="checkbox"/> First-person perspective is used
Multimedia (N = 13; ES = 1.35)	The combination of related words and pictures benefits learning more than words alone.	<input type="checkbox"/> There is a visual provided for text
Generative activity (N = 37; ES = 0.71)	Knowledge retention is supported through generative learning activities during multimedia lessons (e.g., summarizing, drawing).	<input type="checkbox"/> Speaker encourages viewers to pause and complete activities

Note. N = the number of tests conducted for each principle; ES = the median effect size found for each principle.

translation.

Nearly 300 studies were conducted and informed the development of multimedia instruction since 2001, resulting in the associated design principles which aim to maximize learning and comprehension (Mayer, 2021). There are 13 multimedia design principles broken down into three overarching categories centered around information processing: reducing extraneous processing, managing essential processing, and fostering generative processing. Five design principles are associated with reducing extraneous processing, three are associated with managing essential processing, and five are associated with fostering generative processing. Figure 1 provides information about the number of tests conducted and the median effect sizes for the 13 design principles. A checklist related to these design principles is also provided in Figure 1 to support teacher educators in identifying high-quality videos and developing their own CAP-TV lessons.

Research Evidence in Support of CAP-TVs

Several researchers have demonstrated the use of CAP-TVs to support teacher candidates' and in-service teachers' knowledge and implementation of evidence-based practices and HLPs. Regarding evidence for teacher candidates, an initial study conducted by Ely and colleagues (2014) utilized CAP-TVs to instruct teacher candidates in elementary-level, evidence-based vocabulary practices. Results indicated that this tool supported significant increases in teacher candidates' knowledge ($d = 0.72$) and implementation ($d = 1.14$) of vocabulary instructional practices when compared to candidates who learned about the same practices through readings. In a follow-up study, teacher candidates demonstrated increased fidelity with implementing

vocabulary instructional practices, as observed instructional behaviors increased from 27-40% at baseline to 71-88% at post-intervention (Ely et al., 2015). For in-service teachers, the combination of CAP-TVs about classroom management practices with a coaching session, Kennedy et al. (2017) found that high school teachers implemented significantly more than those who received instruction through a traditional in-person PD session. This was true for all three practices taught, including behavior-specific praise statements ($d = 1.67$), opportunities to respond ($d = 2.03$), and precorrection prompts ($d = 1.99$; Kennedy et al., 2017).

In the next section, we explain how to select and embed videos (with a focus on CAP-TVs) into teacher education coursework to strengthen teacher candidates' understanding and use of HLPs. We divided the content into three sections: before instruction, during instruction, and after instruction, with the goal of helping teacher candidates acquire knowledge about HLPs.

CONSIDERATIONS FOR INTEGRATING VIDEOS INTO TEACHER EDUCATION COURSEWORK

Before Instruction

The first step is to review the course content and focus on identifying videos. Prior to the start of a new semester, teacher educators often spend time reviewing course content and updating their course syllabus, making this the ideal time or selecting videos that support course content. Selecting topics and readings is also an excellent time to review video repositories. We encourage teacher educators to check out the existing, ready-made CAP-TVs available for immediate use in courses, provided in Table 1.

Once videos have been identified, the next focus is on the quality of the video. When evaluating the quality of a video, consider the design elements of the video to determine whether it aligns with the associated design principles of the CTML (Mayer, 2021; see Figure 1). For example, when watching a video the teacher educators might ask themselves: "Do text and images presented in this video match the conveyed content?" or "Does the narrator use a clear tone of voice?" Further, teacher educators should consider whether the video meets accessibility standards set forth by website accessibility guidelines and their university's policies. Programs such as Universal Design Online Content Inspection Tools (UDOIT) scan multimedia objects to see whether they have alternative text equivalents (e.g., transcripts, captions). The CAP-TVs that discuss HLPs and their implementation (see Table 1 or The CEEDAR Center website) provide a video transcript. In addition, you can turn on closed captioning through video platforms such as YouTube or Vimeo.

If a video is unavailable on your topic, or the existing videos do not align with CTML, or accessibility standards, you can create a CAP-TV that covers the content you would like to address. Carlisle and colleagues (2021) provide a detailed description of the steps for developing CAP content. Although the Carlisle et al. (2021) article focuses on CAPs for students (CAP-S), the steps outlined are relevant to CAPs for teacher candidates; thus, we have adapted their procedures. In particular, we offer and describe below the three main segments of CAP-TV (see Figure 2). In addition, a downloadable CAP-TV template can be accessed through the following link: <https://tinyurl.com/captv-template>. Directions and other considerations for creating a CAP-TV lesson can be found in the slides' notes

FIGURE 2: Checklist ofr Designing CAP-TV Lessons

CAP-TV SEGMENT	Design Components
<p><input type="checkbox"/> First Segment: <i>Introduction</i></p> <p>Introduce the instructional practice of focus, including a brief overview of evidence supporting its use.</p> <ul style="list-style-type: none"> Teachers should understand why learning about this practice will benefit them (and their students) when implemented in an authentic context. 	<p><i>Explicit Instruction Elements:</i> Focus on critical content; State the goal of the lesson; Design organized and focused lessons; Use clear and concise language; Use a brisk pace</p> <p><i>Associated Design Principles of CTML:</i> Coherence principle; Redundancy principle; Spatial and Temporal Contiguity principles; Segmenting principle; Modality principle; Personalization and Voice principles; Multimedia principle</p>
<p><input type="checkbox"/> Second Segment: <i>Defining the Practice</i></p> <p>Clearly define the practice, explicitly describing each step teachers should follow to implement the practice with fidelity.</p> <ul style="list-style-type: none"> Begin with a statement defining the practice (e.g., “Opportunities to respond are questions that provide chances for students to actively engage with and make sense of new information”). Then provide a list of the steps involved with the practice and clearly describe each step thereafter. 	<p><i>Explicit Instruction:</i> Focus on critical content; State the goal of the lesson; Design organized and focused lessons; Segment complex skills; Logically sequence skills; Use clear and concise language; Use a brisk pace; Provide examples and non-examples</p> <p><i>Associated Design Principles of CTML:</i> Coherence principle; Redundancy principle; Spatial and Temporal Contiguity principles; Segmenting principle; Modality principle; Personalization and Voice principles; Multimedia principle</p>
<p><input type="checkbox"/> Third Segment: <i>Video Model/Closure</i></p> <p>After defining the practice and each necessary step involved in implementation, provide closure by:</p> <ul style="list-style-type: none"> Embedding a video recording of an expert teacher implementing the practice in an authentic context. 	<p><i>Explicit Instruction:</i> Provide Demonstrations</p> <p><i>Associated Design Principles of CTML:</i> Coherence principle; Signaling principle; Redundancy principle; Segmenting principle; Modality principle; Voice principle; Embodiment principle</p> <p><i>*Social Learning Theory</i></p>

Note. By incorporating pauses for comprehension opportunities to respond following each segment, course instructors provide access to the Generative Activity principle (Mayer, 2020) and the elements of explicit instruction that relate to practice opportunities (e.g., guided and distributed practice; Archer & Hughes, 2011).

section included within the template.

As shown in Figure 2, the first segment introduces the HLP content. Providing an anchor image of the practice helps teacher candidates make a connection to the upcoming content. The segment may also include the goals of the CAP-TV (e.g., “In this video, you will learn...”). An explicit cue slide at the end of the segment lets candidates know OTRs are coming. The slide can include icons such as a question mark.

The second segment presents the defining characteristics of the practices, describes the critical features or steps in greater length, and highlights the steps for implementing a practice with fidelity. This segment uses the same anchor image from the first segment

when redefining the practice. It is important to provide critical content while limiting the amount of text presented on each slide by focusing on keywords and phrases necessary for teacher candidates to remember. Text shown on the screen should also match the verbalized narration with each necessary step of the practice on a separate slide. OTRs should be cued before being narrated. The format for OTRs can be open-ended or multiple choice.

The third segment includes a video model of an expert teacher, providing an example of the implemented practice. This is one of the most important pieces of the CAP-TV. Teacher educators can pre-record a teaching segment using a video camera or a classroom recording

device such as a SWIVL recording robot. A SWIVL recording robot follows whoever is wearing the tracking microphone device and can pair multiple microphones placed around the room. It is essential that the device selected has a good microphone and is able to track the speaker. Placing a camera on a tripod and recording a teaching segment often falls short as it misses a great deal of the interactive nature of instruction. To assist candidates in learning the skills, technical aspects of video production should be considered; this includes a steady camera, crisp focus, and audible speaking. To support learning and access, provide voice-over narration (as appropriate) and closed captioning (Hirsch et al., 2019).

When creating or selecting modeling videos for CAP-TVs, video design guidelines such as those created by Brunvand (2010) support the cognitive processing of preservice teachers. For example, explicit prompts point out a relevant part of a practice or segment (e.g., *Now watch this clip of a teacher provide behavior specific redirections. In the segment, you will see the teacher explicitly state the corrected behavior, then the teacher says the expected behavior along with the context in which the expected behavior occurs. The teacher concludes by inviting the student to attempt the desired behavior*). Commentary enhances the candidate's ability to notice important or relevant content. Given many candidates have limited exposure to classrooms, providing multiple examples of an HLP from different perspectives can help the candidates make connections between authentic situations and their existing knowledge (Brunvand, 2010; Ely et al., 2014, 2015). The segment concludes with a brief recap of the information. After the video segment, reflection questions (i.e., OTRs) can also be included.

During Instruction

Once a video is selected or created, the next step is incorporating it into your instruction. To facilitate easy access, an option would be to place a direct link to the video into your course syllabus as well as in the applicable lesson module located on your course's learning management platform (i.e., Canvas, Blackboard). Posting or including links to the CAP-TVs that correspond with your course content on the learning management platform and/or syllabus, ensures that these resources are available beyond the time you have together in your course, promoting repeated access and exposure to the course content.

If teaching a face-to-face or online

synchronous course, you may choose to show a CAP-TV to teacher candidates during the regularly-scheduled class meeting. While viewing the CAP-TV, pause the video and provide opportunities for the teacher candidates to respond to the presented information. Opportunities could include higher-order, "deep" OTRs that require open-ended responses (e.g., *Why is it important for teachers to re-teach classroom expectations despite being taught previously?*) or rote, closed-ended OTRs (e.g., *What are two metacognitive strategies to support memory, attention, and self-regulation?*). For asynchronous instruction, the CAP-TVs can be assigned as a weekly activity. For example, embedding the CAP-TVs into a video analysis tool allows teacher candidates to interact with the CAP-TV. Tools such as EdPuzzle or VoiceThread offer interactive features prompting teacher candidates to respond to open-ended or fixed choice OTRs.

Regardless of instructional format, teacher educators need to engage candidates in critical reflection and discussions around the teacher models in the videos embedded at the end of a CAP-TV. If sharing the content in a synchronous environment, you might ask teacher candidates to separate into small groups (either in the classroom or using a breakout room feature) to discuss what they noticed, what they thought went well, and what they felt the teacher model could have done differently. If candidates are engaging with the content asynchronously, you might ask them to respond to similar prompts on a discussion board. Importantly, make sure to give all teacher candidates the opportunity to share their responses with the whole group to co-construct understandings related to the conveyed course content.

After Instruction

Regardless of the modality, CAP-

TVs provide rich content and concrete examples of HLPs. However, it is important to evaluate whether the CAP-TV is effective by reviewing course data (e.g., assessments, observations). Teacher educators may compare data with prior knowledge measures (i.e., pretest or baseline data) or previous courses' data. When first piloting CAP-TVs, it is ideal to collect and review teacher candidates' feedback on the material. A brief anonymous survey can ask the students to rate the quality of the CAP-TVs and share their thoughts on the content they learned from the videos. For example, CAP-related social validity questions can be found in two articles from Hirsch et al. (2015, 2020). After watching CAPs for teachers on functional behavioral assessment (FBA) content, teacher candidates were prompted to respond to five items using a 6-point Likert-type scale (1 = strongly disagree to 6 = strongly agree). Across both studies, teacher candidates rated the CAP-TVs favorability

Items included:

- The format of the FBA activity worked well for my learning preferences.
- Most teachers would find this activity appropriate for learning about FBAs.
- I would suggest the use of this FBA activity to other students.
- Following the activity that you completed, I am confident in my entry-level knowledge of FBAs.
- The format of last week's instruction was an effective way for me to learn new content.

As the social validity items in these studies pertained to CAP-Ts—a type of CAP that does not include a video of a teacher modeling the practice at the end—add items that ask candidates to provide input on the video model. In addition to quantitative survey data offered by the Likert items, qualitative

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data in the form of narrative, open-ended responses could provide more detailed insights into teacher candidates' perceptions of the CAP-TVs. Furthermore, depending on the learning management system, instructors may be able to view data related to teacher candidates' interactions with CAP-TV content. For example, some platforms provide data indicating the length of time the candidate spent interacting with the video or the number of times they viewed it. Together, these data can inform future iterations of the CAP-TV content or the course map.

FINAL CONSIDERATIONS

CAP-TVs can be used with teacher candidates to support their knowledge and application of HLP content. In this article, we presented the multiple types of modalities that teacher preparation programs provide and explained how video can enhance teacher candidates' learning experience. Though video integration comes with many noted benefits, the video creator's design choices play a critical role in the success of an instructional video. Moreover, when developed with Mayer's (2021) design principles and CTML, learners are more likely to gain new knowledge and foster a deeper understanding of the presented concept. As such, teacher educators should keep these principles in mind while selecting and integrating videos within their courses.

We hope that using the checklists, integration tools, and strategies provided herein support teacher educators in

identifying or creating videos that will effectively support teacher candidates' knowledge of and ability to implement HLPs upon entering the field. To prepare highly-qualified special education teachers, we must make the nuances of classroom practice visible to teacher candidates, and instructional videos designed with evidence-based features are essential to this goal.

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