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Abstract

As the cost of graduate education continues to rise and occupational therapy moves toward a value-based reimbursement system, the development of clinical reasoning skills in a short timeframe becomes increasingly more important in occupational therapy education. Incorporating the use of video into occupational therapy curricula is an effective method of introducing and reinforcing material, developing critical thinking skills, and refining skills of interpersonal communication, observation, and documentation. Determining which technology to use, and how to integrate it effectively into a course, can be overwhelming for instructors, especially those new to using video applications. This article introduces various types of video technology and provides practical examples for integration into the graduate occupational therapy classroom. Potential benefits and limitations are discussed for each type of technology.

Keywords

Video, occupational therapy, instructional strategy, teaching method

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The Use of Video in the Occupational Therapy Graduate Classroom

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ABSTRACT

As the cost of graduate education continues to rise and occupational therapy moves toward a value-based reimbursement system, the development of clinical reasoning skills in a short timeframe becomes increasingly more important in occupational therapy education. Incorporating the use of video into occupational therapy curricula is an effective method of introducing and reinforcing material, developing critical thinking skills, and refining skills of interpersonal communication, observation, and documentation. Determining which technology to use, and how to integrate it effectively into a course, can be overwhelming for instructors, especially those new to using video applications. This article introduces various types of video technology and provides practical examples for integration into the graduate occupational therapy classroom. Potential benefits and limitations are discussed for each type of technology.

The cost of graduate programs continues to rise. A 2018 study by Urban Institute, a nonprofit organization, reported average student debt increased by 52 percent between the 1995-1996 and 2005-2006 academic years (Baum & Steele, 2018) with students paying for 24% of graduate school expenses out of their own earnings (Sallie Mae Bank, 2018). According to the American Occupational Therapy Association (AOTA), there are 276 graduate occupational therapy (OT) programs in the United States (AOTA, 2018). Programs must offer innovative curricula to attract students and remain competitive. Additionally, programs delivered in fewer semesters will help minimize debt and meet the needs of students who are working full time. Video is one technique that instructors are increasingly implementing to address these concerns. In this paper, the author uses the terms video and video platform to describe the actual recordings that can be played back for later viewing and the websites instructors can use to record, edit, and create learning experiences using the videos.

Although some may think the idea of using video technology in the classroom began in the 1950s (Cuban, 1986), documentation of the proposed benefits for educational purposes exists dating as early as 1914 (Brooker, 1947). In fact, a 1913 *New York Dramatic Mirror* newspaper article (as cited in McCarthy, 2017) reports Thomas Edison predicted books becoming obsolete, being replaced with film. Instructor use of pre-recorded lecture and YouTube videos as preparatory work prior to classroom activity has evolved into a popular teaching method. Although these are effective ways to deliver content, there are several other methods in which an instructor can incorporate video into the graduate classroom.

Videos can be used in similar ways to simulation but are a more cost-effective option for instructors. Video cases are a flexible option that educators can incorporate into the graduate OT classroom to reinforce learned clinical skills (Mitra et al., 2010) and develop effective written and verbal communication. Additionally, after viewing a video clip, questions or case studies may be integrated into the class to improve clinical reasoning skills (Bethea et al., 2014; Castillo, 2011). Videos can be useful in helping students learn how to choose appropriate assessment tools, develop plans of care, and determine when to make an appropriate referral to a specialist within and external to the profession of OT (Castillo, 2011). In addition to using existing video clips, using a video platform can allow instructors to upload, edit, playback, and share video content with others (“Online video platform,” 2020).

Instructors can use video in a variety of ways for synchronous and asynchronous learning activities. Aldrich and Johansson (2015) conducted a pilot study of an online synchronous video discussion between students in the United States and students in Sweden. The results of this study indicated that students found the use of technology beneficial in expanding knowledge of the definition of occupation and the impact of culture on OT practice (Aldrich & Johansson, 2015). McAlister (2014) combined face-to-face lectures with asynchronous viewing of videos created to demonstrate the skills of goniometry and muscle testing. Data analysis indicated students viewed videos at all hours of the day and night, demonstrating students were able to access the content whenever they felt most driven to engage in the learning experience (McAlister, 2014).

The use of video in teaching and learning is often associated with online courses; however, there are many uses for video in the traditional face-to-face classroom as well. McAlister (2014) integrated video of range of motion and strength testing into a traditional didactic kinesiology course. The instructor demonstrated skills in the classroom and students viewed videos to supplement the live demonstrations (McAlister, 2014). Students reported the convenience of being able to review the videos multiple times improved their learning and self-confidence with correctly performing the skill (McAlister, 2014). Giles et al. (2014) integrated video reflection into a simulated patient encounter to allow students to identify their strengths and limitations. Responses to this activity indicated that students gained increased insight into how others perceived and improved their confidence in their knowledge of clinical skills (Giles et al., 2014).

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Tonsing-Meyer (2013) recommended varying instructional methodologies to improve student learning and to engage multiple learning styles in online courses. By using assessment as an ongoing tool to evaluate teaching effectiveness, Green et al. (2010) recommended instructors vary teaching tools to enable students to create individualized learning experiences linking theory to practice in meaningful ways. Integrating a variety of teaching techniques has the capability of influencing a more significant number of students in a particular course (Romanelli et al., 2009). Additionally, a varied instructional design may provide the added benefit of challenging students to engage in different styles of learning, potentially providing a richer learning experience for all (Romanelli et al., 2009). A cost-effective method of meeting a wide variety of learning needs is to add video platforms into a course. Supplementing educational activities with the use of video has the potential to reach students who self-identify as verbal or visual learners while integrating practical examples of material into a course.

The purpose of this paper is to provide educators with ideas for the practical use of videos and video platforms in the graduate OT classroom to enhance understanding and application of clinical concepts. Included are descriptions of specific resources along with examples of integration that educators can incorporate immediately, often with little or no expense to the institution. See Table 1 for a summary of the tools and their uses. Although specific applications are listed under usage headings, many of the applications are versatile and, once an instructor begins experimenting with them, can be incorporated into courses in a variety of ways.

Skills That May be Taught Using Videos and Video Platforms

Clinical Reasoning

Many instructors in healthcare educational programs use role-play or simulation to reinforce clinical skills taught in the classroom (Beck & Kulzer, 2018; Bethea et al., 2014; Castillo, 2011; Lane & Rollnick, 2007). Although this can be a useful technique, simulating patient impairments is difficult and can limit the depth of learning. Students may be able to identify mannerisms or clues from the instructor as to observations or comments they should make during a simulation. Instructors may inadvertently give verbal or nonverbal hints to the students, limiting the ability to think through a case critically. By watching a video of a treatment session between a client with real deficits and a skilled therapist, such as those in the International Clinical Educators, Inc. (ICE) (ICE, 2018a) database, students can critically analyze the scenario and compare it to concepts learned in the classroom. The topic possibilities are limited only by the instructor's creativity and can include therapist's use of body mechanics, transfer techniques, methods for cueing clients, and choosing an appropriate assessment tool.

To encourage students to analyze a scenario, an instructor may use a platform such as Playposit (www.playposit.com) to embed probes into a video clip such as "think about what you would do differently if you were the therapist" and "list some things the therapist is doing well and some things the therapist could improve." More complex questions can also be incorporated to promote advanced clinical reasoning skills.

Examples include: “what would you do if this (insert a circumstance) happened next?”, “what if the client had been confrontational?”, or “if the client had not been able to complete the activity, how would you grade it down?”

Instructors can use videos to assist in clinical reasoning skills when choosing appropriate assessment tools, developing plans of care, and identifying the need for a referral internal or external to the profession of OT. Students can watch clips in class and read a small case study written by the instructor. Instructors may then facilitate small group discussions to determine appropriate intervention strategies that address the client’s goals and how to progress through different stages of rehabilitation (e.g., acute care, rehabilitation, outpatient). Depending on the identified problems, potential referrals within and external to the profession of OT can be discussed, including how to make the referral. Students can then role-play making the referral in-person or draft a professional e-mail requesting services. Instructors can further use the activity to teach students to advocate for necessary services for a client who may not have coverage.

Various online sources exist where, and students can locate videos, depicting clinical scenarios for use in the classroom. Examples for integration into the graduate OT classroom are listed in Table 1.

Documentation Skills

As healthcare moves toward a value-based reimbursement system, documentation is fast becoming one of the top skills for students to learn (Steffen, 2019). Documentation should use profession-specific language and be succinct but include adequate detail to allow for replication of the session if needed (Gray, 2014). Learning effective documentation skills is difficult until students begin to see actual clients and discover how to document unique situations and various responses to treatment. It is essential to begin training students in documentation as they progress through a curriculum so that in fieldwork, documentation skills are being refined, not developed. Several companies, such as EHR Go (https://ehrgo.com/therapy/), offer student access to electronic medical record (EMR) software. Combining the use of video patient cases with the EMR provides students with the experience to improve skills of observation and documentation in preparation for fieldwork. Incorporating Simucase (Simucase, 2019b) or the ICE Learning Center (ICE, 2018a) with the EMR is invaluable because it is difficult to locate videos on the internet that demonstrate actual therapeutic sessions.

Videos can prove a useful educational strategy for students learning to document intervention sessions. Differentiating between the objective portions of a note and documentation of the client's response to treatment can be confusing to a student exposed to note writing for the first time. To assist in learning to separate objective observations from therapeutic interpretations of them, instructors can present a segment of video, and then ask students to document the separate components of the treatment note. Instructors may develop a backstory to enhance this activity and provide students with an understanding of the client’s prior level of functioning and therapeutic goals.

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An increase in productivity requirements in many healthcare environments now challenges therapists to sustain high caseloads with little time for required documentation (Winistorfer et al., 2016). Anecdotal evidence demonstrates students struggle with speed of documentation early in their careers. Showing a short video segment and giving students a defined timeframe to complete a treatment note can assist students with developing the skills of observation along with thoroughness and brevity in note writing.

Interpersonal Communication Skills

Instructors cannot adequately evaluate interpersonal communication skills through a written examination. Practice through role play and simulation provides students with opportunities to integrate skills discussed in the classroom. Using video as a means of analyzing performance and providing feedback has been shown useful in gaining insight into how the receiver of communication perceives it (Beck & Kulzer, 2018). For some, being videotaped inherently causes communication to become rehearsed and less spontaneous and, therefore, may not be an effective way of evaluating communication skills for all students. Using pre-recorded videos, such as those from Simucase (Simucase, 2019b) and the ICE Learning Center (ICE, 2018a), can be a nonthreatening way to learn to provide valuable feedback and critique the effectiveness of verbal and nonverbal communication. Students can view video segments, discuss what the therapist is doing well, and identify areas the therapist could improve. Classroom discussions regarding suggestions for different phrasing or interpretations of body language will permit students to be open and honest in their critique without feeling they are judging a peer.

Discussion Skills

Several authors have studied the benefits of online discussion boards in allied health education (Daniels, 2010; Macznik et al., 2015; Matheson et al., 2012). In a systematic review of studies investigating physiotherapy teaching and learning, Macznik et al. (2015) found multiple benefits of discussion boards, including improvements in critical thinking skills, reflective thinking, and level of participation in discussions. Another study found the discussion board component of the course assisted in promoting collaboration and seeking differing viewpoints among students (Matheson et al., 2012). In contrast to face-to-face discussions, discussion boards allow students time to develop a more thoughtful response supported by current evidence (Macznik et al., 2015).

Most online discussions take place via a text-based platform within a learning management system, where students type out their comments to be read and responded to by peers and instructors. As Green and Green (2018) pointed out, for some students, this method is ineffective. Anecdotal evidence demonstrates that some students become disengaged and develop discussion board posts lacking depth and quality. Additionally, the true meaning behind a student’s post may be lost in the written word where no tone inflection or facial expressions can be observed. For the student whose writing skills are underdeveloped, a written discussion board may not be an accurate measure of knowledge translation of a topic.

Information Dissemination

Instructors often have information they would like to pass on to students but do not want to take up valuable class time to disseminate it. Written announcements can be used for this purpose, but topics that require more in-depth information may require a verbal explanation. Reviewing a recent quiz or test, providing information about specific class requirements, or clarifying directions for an upcoming assignment are a few examples of important information students may need from an instructor. Using video platforms to distribute information to all students in a course, synchronously or asynchronously, can save time in the classroom and avoid student misinterpretation of information.

Examples of Available Video Platforms

International Clinical Educators

International Clinical Educators, Inc. (https://www.icelearningcenter.com) was created to assist occupational and physical therapists with developing clinical skills through a collection of videos demonstrating interactions between actual clients and therapists (ICE, 2018a). Although the ICE Learning Center has been in existence since 1983, a search of the literature produced minimal evidence demonstrating its usefulness within professional programs (Davis, 2006; Lairamore et al., 2013; Mendonca & Johnson, 2018; Murphy & Stav, 2018). The ICE video library includes more than 185 videos ranging in length from a few minutes to an entire treatment session. Topics range from acute cerebrovascular accident and traumatic brain injury to various pediatric diagnoses and include cognitive as well as physical impairments. A subscription also includes access to an area titled Faculty Toolkit, where instructors can find lesson plan ideas and advice on using the ICE videos to flip the classroom (ICE, 2018b).

The ICE video library does require a subscription fee for faculty and student use. Per contact with the Operations Administrator, two main types of subscriptions are available: institutional and departmental. The institutional subscriptions cost $895, and all programs on campus have access to the materials. In contrast, the departmental subscription costs $650 and permits only one program (e.g., OT) access to the videos and faculty tools.

Simucase

Simucase (www.simucase.com) is another platform that uses video of actual client cases to create clinical scenarios for use in education. Students can utilize the videos to develop skills of observation, simulate interviewing clients, collaborate with other health professionals, administer assessments, and make intervention recommendations (Simucase, 2019b). In October 2019, Simucase launched its OT site and continually adds simulations and patient videos to the collection (Simucase, 2019a). Interested OT educators can sign up for more information on the Simucase website at https://www.simucase.com/ot. Occupational therapy simulations and cases are available for $99/year (Simucase, 2019a).

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Although the benefits of incorporating the videos from the ICE Learning Center and Simucase are numerous, one downside is the subscription fee required for each. Inquiring with a librarian may reveal a college or university already subscribes or has funds available for a subscription. Other healthcare programs such as physical therapy or nursing may find the videos useful and be willing to share the cost. Some textbooks, such as *Occupational Therapy in Acute Care* by Helene Smith-Gabai and Suzanne E. Holm, *Mobility in Context: Principles of Patient Care Skills* by Charity Johansson, and *Occupational Therapy in Action: A Library of Case Studies* by Dianne Trickey-Rokenbrod do include a limited number of video resources with the purchase of the book. If an institution is unable to afford a subscription fee, instructors must look elsewhere for instructional videos to supplement textbooks and peer-reviewed literature. Since YouTube is readily accessible everywhere, it is often the logical first place to search for material.

YouTube

Web 2.0 tools, also known as the participatory web, have become a part of everyday life for many people around the world, enabling people with little to no skills of writing or video production to create content for public viewing and sharing (Blank & Reisdorf, 2012). YouTube is one of the most popular Web 2.0 tools used in classrooms from preschool through graduate-level education (Jones & Cuthrell, 2011). Authors have discussed the integration of YouTube in the graduate medical professional classroom to enrich understanding of different cultural views of diseases and to supplement textbook explanations of practical skills such as goniometry and strength testing (George & Dellasega, 2011; McAlister, 2014).

As noted previously, video content has many benefits to the learner as well as the educator. Using video in the classroom provides an alternative way of explaining content to students, drawing on different learning preferences. Videos can also assist in clarifying student questions about topics such as hand placement or body mechanics during transfers, or proper wheelchair positioning for specific diagnoses. Most students have internet access; therefore, videos on YouTube can be viewed from virtually anywhere, on a multitude of devices (laptop, tablet, phone), making this form of instruction highly favorable (McAlister, 2014).

In addition to supplementing course content, instructors can use YouTube as a presentation tool. Uploaded videos may be public, or instructors can create channels, so only those with the link may view the posted videos. Instructors can record videos and post them for students to view at their convenience. Students may produce videos for upload, allowing for creative assignment construction and dissemination. Students can comment on videos or ask questions of their peers in a forum below the posted video (McAlister, 2014).

An obvious downside of YouTube is that most videos related to healthcare are student generated. Although still valuable learning tools, role-played case scenarios are not as authentic as footage of individuals with specific diagnoses. Additionally, content created by students at other institutions as part of a course requirement should be evaluated for

accuracy before students incorporate the information into a collection of resources. Regardless, the availability and the fact that YouTube is free make it an attractive option for the integration of technology in the classroom, primarily if budgetary concerns exist.

Vimeo

Similar to YouTube, Vimeo (https://vimeo.com) is a web-based video repository of user-supplied videos that can easily be shared or embedded on websites or blogs. Vimeo allows for linking to a specified portion of a video, so students view only portions relevant to the studied topic, saving time. Paid memberships also permit video download. When searching, individuals can bookmark videos for later viewing and, if enabled, make comments about videos under them on the web page. Vimeo also has free stock videos available for instructors or students who may be interested in creating video projects.

Limitations to Vimeo include a lack of OT specific videos; however, the site does contain video content about topics related to the profession (e.g., hippotherapy). Similar to YouTube, videos are user-generated; therefore, clinical scenarios are contrived and may not depict realistic interactions. Different levels of membership are available, ranging from free to $99 per month. The free version or $7 per month membership should permit adequate features and video customization for graduate OT education.

PlayPosit

PlayPosit (www.playposit.com) is a platform educators can use to create interactive learning experiences for students (termed bulbs), using existing video from the internet (PlayPosit Incorporated, 2019). Instructors can crop and add captions to videos to assist students in identifying important concepts. The program also allows for the integration of reflection and polling questions to test student knowledge, in real-time, during viewing. Discussion board opportunities can also be embedded to provide opportunities for a more in-depth discussion with peers, promoting application of the topic.

Instructors can begin using PlayPosit for free by signing up at www.playposit.com/premium as an instructor using the “Basic” package. The Basic package includes 10,000 MB of storage and permits users to create bulbs and monitor students. More advanced features such as uploading a video, copying and editing others’ bulbs, or exporting student grades require a paid subscription. Individual packages cost $144 per year and institution packages are also available.

VoiceThread

VoiceThread (https://voicethread.com) is a cloud-based application that allows for the creation and sharing of documents, presentations, and various types of files (VoiceThread, LLC, 2019). Instructors can create simulations and upload them into a VoiceThread presentation for sharing with students (Stanley et al., 2018). Supplemental content or discussion questions may be embedded in the presentation to assist in student reflection and learning. VoiceThread permits the uploading of various file types into a presentation format. Once a VoiceThread presentation is developed and shared,

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students and instructors can engage in a discussion by commenting on the slides. Comments can occur through text as well as the use of video or audio files and accessed through a computer, phone, or tablet.

Integration of the VoiceThread video discussion feature into a course assists in students gaining a deeper understanding of peer responses and creates a more "personal" feeling among students when compared to written methods of discussion (Donnelly et al., 2016; Stamps & Opton, 2019). Thor et al. (2017) reported success in using VoiceThread student-generated presentations in a face-to-face physiology course. Instructors asked students to develop presentations on new course content via VoiceThread, generate questions for peer response, and respond to other presentations. Due to the removal of time constraints, results demonstrated a more thorough discussion than typically occurs in traditional classroom settings. Students interacted with more presentations than was required and reported a deeper level of learning by having time to review and reflect on presentations as often as needed. The researchers also reported additional learning through asking and answering questions.

VoiceThread includes a free version with the availability of basic functions, or a paid yearly subscription for either single instructors ($99 per year) or a site license. Interested individuals are encouraged to contact VoiceThread for pricing at https://voicethread.com/products/highered/sitewidelicense/. The single instructor subscription provides a secure environment that allows for the editing of student work and the creation of groups to assist in course organization. With a site license, increased features become available such as IT integration, advanced security, and the ability to run data analytics reports.

Adobe Spark Video

Adobe Spark Video (ASV) (https://spark.adobe.com/) is a cloud-based application that allows for the quick creation of videos using photos, existing video clips, and audio files. Instructors can record videos to present information or students can record videos for presentation. Pre-recorded videos may be uploaded into a presentation to add a dynamic component to any slideshow, and voice recordings to narrate each slide provide clarification of complex topics.

Possibilities for the use of ASV, specifically for clinical case scenarios in the OT classroom, are seemingly endless. Instructors can develop a slideshow, including client background information and OT evaluation results. A video clip of the client may then be inserted, followed by prompts or critical thinking questions. Instructors may ask the students to develop goals, design a treatment session, or develop a conversation with a caregiver or other health provider to address an identified problem. Students may document observations noted in the video clip or make recommendations for adaptive equipment or a piece of technology to increase the client's independence. Time to respond may be allotted in class via group discussion or role play, or students may video themselves and upload their responses to a location designated by the instructor.

Three different packages are available for ASV, including a starter plan, individual, or team pricing. The starter plan is free and includes a library of images for use in designing videos. Added features of the individual plan, costing $10 per month, include increased personalization and branding of products, availability of premium templates and fonts, and removal of the ASV watermark. The team plan allows for multiple licenses and 24/7 technical support at $20 per month. Many universities subscribe to other Adobe applications, often making ASV readily available to faculty at these institutions.

Microsoft Flipgrid

An alternative to a written discussion board is Microsoft Flipgrid (https://flipgrid.com), a free video discussion platform where instructors create a topic, and students respond with short videos up to five minutes in length (Flipgrid website, 2019). In addition to creating a response, students can also reply to peer posts, increasing dialogue and discussion around the topic (Flipgrid website, 2019). Students and instructors can see and hear the post, increasing the richness of the dialogue and understanding of the intended response. If a five-minute video is too lengthy, instructors can limit the response time to fit the needs of the course. Students can use videos to demonstrate skills, present a topic, provide an opinion, or ask a question. Additional suggestions for use in higher education found on the Flipgrid blog include sharing a welcome or introduction with a class, developing a place for study group meetings, and integrating an ongoing question and answer page for the course (Underdown & Hartman, 2017).

Padlet

Padlet (https://padlet.com) is a cloud-based application that permits students and instructors to post in real-time. It permits collaboration between students, or students and the instructor and is useful for quizzes, group discussions, question and answer, or discussion board posts. In addition to text responses, students can upload images and videos from the internet or computer programs, making the applications for this platform virtually endless. The appearance is customizable and accessible from a phone, tablet, or computer (Padlet, n.d.b). Similar to Flipgrid (Flipgrid website, 2019) and VoiceThread (VoiceThread, LLC, 2019), Padlet can be used to post a question for discussion followed by students responding via video file.

A free version of Padlet exists, but there is a limit to the number of Padlets that may be created at once. The educational package includes additional features such as the ability to manage student participant lists, increased privacy settings, and more extensive file upload capability. The cost of the individual teacher plan is $12 per month or $99 annually, both with unlimited student accounts. A school plan can also be purchased for $1499 per year and includes unlimited teacher and student accounts (Padlet, n.d.a).

Screencast Software

Researchers from various disciplines such as engineering (Green et al., 2012), statistics (Lloyd & Robertson, 2012), and psychology (Fallon, Mahon, & Coyle, 2018) have published literature on the use of screencast software such as Screencastify

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(www.screencastify.com) and screencast-o-matic (https://screencast-o-matic.com/). Reported uses range from reviewing homework assignments (Green et al., 2012) to presenting new material (Green et al., 2012), and supplementing or clarifying difficult concepts (Fallon et al., 2018; Lloyd & Robertson, 2012; Morris & Chikwa, 2014). Morris and Chikwa (2014) noted a significant difference in test grades between students who watched screencasts explaining difficult concepts and those students who did not. Lloyd and Robertson (2012) reported similar findings in their study, stating that students who completed screencast tutorials received higher scores than a control group who reviewed a paper review packet. In addition to being more educational, Fallon et al. (2018) reported that students found the review of material through screencast to be more interesting and beneficial than reviewing a textbook alone.

Most evidence of the successful use of screencasts is derived from undergraduate coursework; however, the principles can be applied to the graduate OT classroom. Screencasts can be a valuable method of providing direction or instruction without using valuable class time. At the beginning of a semester, reviewing a syllabus via screencast and highlighting important assignments and key course policies can help alleviate tension and limit questions on the first day of class. After grading an assignment, an instructor can develop a brief screencast highlighting common areas in need of improvement as well as note those skills the class appears to have well conceptualized. If an assignment rubric proves confusing and the instructor feels inundated with questions, a quick screencast to clarify the assignment expectations can ease student and instructor frustrations. One limitation of the free version of the software is that there is often a time restriction, so for lengthier requirements, web conferencing may be a better option.

Discussion Features in Learning Management Systems

Various learning management systems (LMS) are utilized in higher education today; however, all of them have similar features including a discussion board that can be embedded within each course (Adzharuddin & Ling, 2013). Advantages to using an embedded discussion board may include convenience and familiarity. Students become familiar with the school's LMS from the first semester of enrollment. Since most students use the LMS for multiple courses, they quickly become familiar with the functionality and may find using the embedded discussion board feature more convenient than utilizing an external program. From an instructor standpoint, integrating the discussion board feature into a course, takes little, if any, additional training to learn (Adzharuddin & Ling, 2013). Common LMS systems include Canvas (https://www.instructure.com/canvas/), Sakai (https://www.sakailms.org/), and Moodle (https://moodle.org/), however a multitude of other open source and closed source LMS are available.

Web Conferencing

Web conferencing software has similar applications in the graduate OT classroom as screencast software. Frequently, free versions of web conferencing applications also have time limits for use; however, many universities subscribe to a service such as Adobe Connect (www.adobe.com/products/adobeconnect.html) or Zoom

(https://zoom.us/), permitting faculty and students to use the service without time constraints. Uses in the literature include reviewing examinations to discuss responses and rationale, integrating students from different campuses into one combined lecture session, and joining face-to-face and online students to complete active learning activities together in the virtual environment (Bower et al., 2015). Some software permits the recording of sessions for sharing with individuals who may be unable to attend the live virtual meeting.

Other web conferencing platforms include GoToMeeting (www.gotomeeting.com), Skype (www.skype.com), and Google Hangouts (https://hangouts.google.com/). Often, free versions are available but may have restrictions on the permitted number of attendees or length of a meeting. If a university does not subscribe to a service, creating a list of potential uses and investigating the available options on the web is suggested before purchasing a product. User reviews are often available, which may be beneficial in determining the reliability and applicability of a specific product.

Table 1

Summary of Video Platforms

Platform Name	**Description**	**Uses in OT Classroom**	**Web Address**
Adobe Spark Video	Platform for video creation and adding narration to presentations	Video creation Presentation tool	https://spark.adobe.com/
International Clinical Educators (ICE)	Video database of actual therapist-client scenarios	Case scenarios	https://www.icelearningcenter.com
Learning Management System (LMS)	Course delivery software application	Discussion board	Varies depending on source
Microsoft FlipGrid	Video discussion platform	Video discussion board Presentation tool	https://flipgrid.com
Padlet	Cloud-based collaboration platform	Collaboration platform Discussion board, quizzing, question and answer features	https://padlet.com

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PlayPosit	Platform that allows creation of learning activities from existing video on internet	Role-play scenarios Caption and crop videos Reflection and polling features	www.playposit.com
Screencast Software	Cloud-based platform for recording presentations	Presentation tool	Varies depending on software
Simucase	Video database of clinical case studies	Patient simulations Case scenarios	https://www.simucase.com/
YouTube	Video database	Role play scenarios Presentation tool	https://www.youtube.com/
Vimeo	Video database	Role-play scenarios Crop videos Bookmark and comment features	https://vimeo.com
VoiceThread	Platform for document, presentation, file sharing	Presentation tool Document sharing Can embed questions Comment feature	https://voicethread.com
Web Conferencing Software	Platform for synchronous meetings and recording of presentations	Presentation tool, synchronous learning	Varies depending on software

Implications for Occupational Therapy

Graduate students come from diverse backgrounds and experiences, bringing a variety of preferences for learning to the classroom (Lauzon, 2011). Many students today are comfortable with technology and easily integrate video into their daily lives (Brown, 2011), not only in the form of class presentations and research but for phone calls with loved ones and documentation of special life events. A variety of instructional methods should be integrated into the OT classroom to engage students and help promote creativity and improve learning (Romanelli et al., 2009; Tonsing-Meyer, 2013). Although an inexperienced instructor may find the thought of assimilating video into their instructional design a daunting task, the tools suggested in this article are relatively easy to implement at little to no cost. By introducing one tool into a course, instructors may increase their comfort level and discover new ways of stimulating student learning. Once mastery of one tool occurs, trying another in a different course will help add variety and promote a renewed interest in the material.

Video can help better prepare OT students to enter fieldwork and improve overall success with the clinical experience (Giles et al., 2014; McAlister, 2014). Often students only have peers and instructors to practice skills taught in the classroom, making the transition to fieldwork a difficult one. One advantage of video used as an adjunct to face-to-face learning is that it can clarify complex concepts through visual and auditory explanations and demonstrate the application in a clinic environment (Mendonca & Johnson, 2018; Murphy & Stav, 2018). Additionally, online students and those in a traditional classroom can improve their skills of observation and documentation in a low-pressure environment. Integrating reflection and discussion through video enables students to gain a deeper understanding and provides for different perspectives that written reflections are not able to provide (McAlister, 2014). Using video platforms in OT education to present new information, clarify confusing concepts, or review exams will help save valuable time in the classroom that can then be used for application of information.

Conclusion

As outlined above, integrating video technology into the OT classroom can assist with developing student critical thinking skills and provide instructors with a way of integrating creative teaching strategies into a course. Using a variety of teaching methods may assist with the retention of new material in addition to meeting the needs of a wide range of learning preferences. Combining video with more traditional methods, such as readings and lectures, has the potential to clarify complex concepts for students. Adding video to the graduate OT curriculum to replace lecture or enrich discussion around a topic may also allow for increased time in the classroom for innovative pedagogies and practical application of skills.

Instructors who are new to using video in the classroom may be initially overwhelmed by the thought of attempting something new. Instructors are encouraged to determine which platforms are already in use at their respective institution and seek out fellow

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instructors to assist with learning to navigate an unfamiliar platform. Lastly, most video platforms are either free or affordable, making implementation in the classroom a cost-effective way of creating an innovative learning environment.

This article provided an overview of video platforms that may be useful in the graduate OT classroom. A limitation is that, since it is not a research study, this article does not add any empirical evidence to the OT literature. Research is needed on course-level and program-level learning outcomes using these specific techniques in the graduate OT classroom. Additionally, investigating student perceptions of these techniques, specifically concerning the increased time available in the classroom for application and active learning, would be beneficial for future research.

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