Strategies for Using Flipgrid in the Education

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The use of technology has become a mainstay in colleges and universities. These technologies provide new opportunities for collaboration, interaction, communication, and the sharing of ideas and knowledge. The latest advances are continually being implemented in the field of education including mobile devices, social media, blogs, and podcasting. Technology has been shown to affect student learning and perceptions in several ways. Previous research indicated that identified social, cognitive, and teaching presence as critical elements within a class to bring about optimal learning by students. Many students are familiar with video response technology, because it is relatively similar to social media tools like Snapchat. Flipgrid provides a medium for students to socially interact more often with one another, and actively engage with the course material. University learning environments are changing rapidly, with faculty being encouraged, and tasked to keep up by using different tools and technology platforms into their education and kinesiology classrooms. Today's college students are part of a "screen-based society", as indicated by their excessive use of social media, educators need to meet these students where they are most comfortable, and willing to interact with peers by providing opportunities to all students via screen-based platforms. It is imperative that college faculty teach students going into the education and kinesiology profession how to utilize available technology since it continues to become more of an elemental part of teaching, helping students to develop with 21st century skills for a global economy.

Keywords: higher education, Flipgrid, kinesiology, video platform

Flipgrid Explained

Video response technologies, which are social interfaces allowing people to engage and collaborate with others, have recently gained great popularity. A specific video response technology, Flipgrid, can be a valuable experiential learning tool, and enables educators to engage students in a variety of learning and assessment activities. Flipgrid was first developed for educational professionals and has been described as a platform to: (a) address the needs of changing learners by enhancing course engagement; (b) increase student involvement during lectures; (c) promote students verbal reflective development; and (d) increase instructor awareness of student understanding of course concepts (McClure & McAndrews, 2016). Flipgrid is free and available to use on all platforms: IOS, Android, and Web. Additionally, Flipgrid links to a variety of learning management systems (LMS), such as Blackboard, Moodle, and D2L (Barlett, 2018). The software used ensures Americans with Disabilities Act (ADA) compliance by transcribing the videos immediately to meet the learners' needs (Barlett, 2018).

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Flipgrid has been utilized for course introductions, group discussions, content review, and an assessment tool. Course introductions were interactive and provided connections to be made between the students and their instructor. Course discussions became an organic and natural process, allowing participants to immediately share ideas and methods. Students could record physical actions permitting the instructor to provide constructive feedback, allowing corrections to be made prior to final submission. This immediacy improved interaction amount and depth resulting in skill reinforcement. The Flipgrid platform provided the capability to preload assessment criterion (rubrics) that supported the course learning objectives. The embedded rubrics permitted instructors to promptly and reliably assess the students' work.

There are two key terms used with this platform, grid, and topic, which are important for understanding the process of setting up Flipgrid to use in a course. Educators create a main grid class or section name, and then create topic cards for that class (T. Green & J. Green, 2017). Topic cards provide prompts for the students to create video thread responses based on the previously learned information, lectures, or specific prompts (T. Green & J. Green, 2017). Students access grids through the use of a Quick Response (QR) code, class code, or grid code taking them directly to the topic card where they respond (Fahey, Moura, & Saarinen, 2019). Instructors set up written guidelines in the grid directions, and create custom rubrics if desired. To begin a thread, the instructor creates an initial video to outline the teaching concept or idea (Barlett, 2018). After assigning a topic, students respond, view, and reply to other videos on the topic.
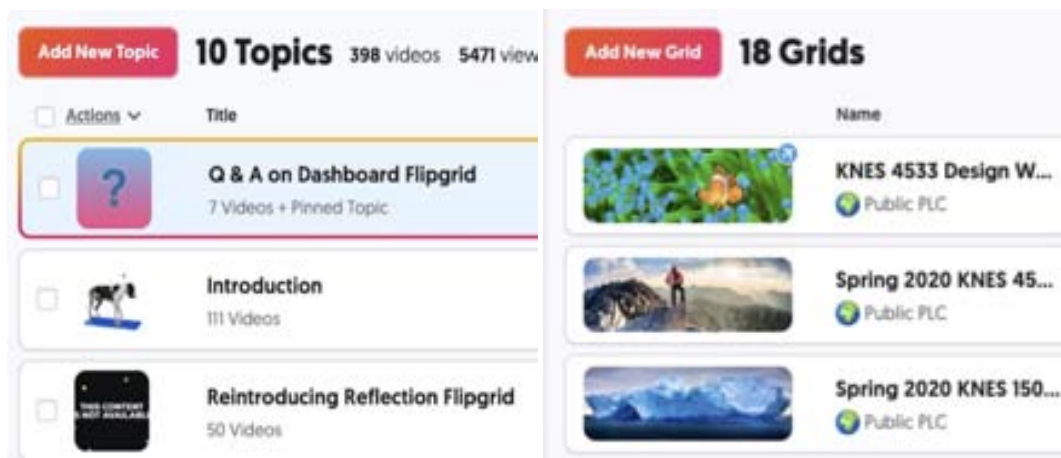

Figure 1. Flipgrid topic cards and individual class grids.

Integrating Flipgrid

Flipgrid was integrated into traditional and online Education and Kinesiology courses at a mid-size university in the Southwest United States. The cross platform's design, simplicity, embedding capabilities, and cost (free) made Flipgrid popular with the students. The cross-platform design (desktop, laptop, or mobile device) allowed traditional and nontraditional students to participate in the Flipgrid activities by clicking only one button. Flipgrid was easily embedded into the university's Learning Management System (LMS) and course Websites. Implementing technology is usually costly for both students and faculty, however, Flipgrid was free to use and offered user-friendly applications on both Google and Apple products.

The instructors used Flipgrid to improve classroom management, enhance student learning, and increase student engagement. Allowing students to perform, review, and teach skills, assists with the cognitive and

physical competencies required. The Flipgrid platform afforded students to video and edit themselves practicing different strategies without the pressures associated with others watching. The platform also allowed instructors to model appropriate skills and for students to practice these skills individually or with peers. Instructors utilizing the Flipgrid platform developed tasks that link theory to practice ensured comprehension of theoretical constructs. The students assumed the teacher role within the Flipgrid virtual environment, strengthening the connection between theory and practice. Though some strategies were more beneficial in certain classes or subjects all were found to increase time efficiency within the class, provide quality review of skills, and apply learned theory to practice.

Strategies

Review of Skills

One standard in physical education is for students to demonstrate competency in motor skills acquisition (Society of Health and Physical Educators, 2020). Physically practicing motor skills is essential to learning, but people may also learn motor skills by observing or teaching others (Andrieux & Proteau, 2016; Kobayashi, 2019). In some kinesiology courses, faculty assign specific motor skills that students teach as a way to improve their ability to perform skills and instruct others. Students enrolled in the educator preparation program (EPP) are assessed on their dispositions multiple times throughout the program. These dispositions are divided into the following four categories: (a) learner and learning; (b) content; (c) instructional practice; and (d) professional responsibility, as established by InTASC (Council of Chief State School Officers, 2013). A student's dispositions demonstrate their ability to synthesize knowledge gained in their respective courses (Serdyukov & Ferguson, 2011). Using Flipgrid as a tool, students are able to practice performing and teaching a skill while being recorded, granting the instructor an opportunity to review and offer suggestions for improvement. Allowing peers to view and critique each other is another way to increase student engagement and learning in both social and cognitive realms.

Within a gymnastics unit, a topic card was created for students to use, while performing, teaching, and spotting a handstand. For this topic card, a student recorded the instructor demonstrating how to perform the skill with appropriate verbal instructions. Key lead up skills and specific points for performance were emphasized during the lesson. These included correct body position from start to finish, and the different phases of the motion (body in a straight line, lean forward as a lever to begin the motion, hand placement on the mat, kicking up legs to straight position with head neutral, maintaining a tight straight body throughout, and then stepping down to finish in an extended position). A second video was recorded of the instructor identifying and emphasizing the correct technique for spotting the skill. Specific to spotting or helping the student is where to stand relative to the performers' position, hand placement, assisting with the leg kick, maintaining an inverted body position, and stepping down at the conclusion of the skill to a finished position. Students were then directed to refer to the video as a tool for learning and practice outside of class.

Students working in small groups made initial recordings while their peers were performing each skill during class. Students did a final recording of each skill at the end of the unit, after reviewing and practicing on their own. Students were encouraged to use this platform to help one another by reviewing initial peer videos while performing the handstand. The intent of this exercise was: (a) to provide students a modeled skill performance with appropriate instruction and teaching cues; and (b) an opportunity to evaluate their peers and provide appropriate feedback. When the second video was recorded of the student's skill and spotting

performance it was easy to identify those students who took the time to review and practice the skills presented and those that only viewed and responded to their peers'. Overall, this activity helped students understand and perform the assigned skills for increasing student learning and working together.

Linking Theory and Practice

For instructors, having the ability to record student performances increases the quality of feedback, whether in a group or individual setting and is key to learning and retention. Holbeck and Hartman (2018) found that using video recording tools provides a necessary link toward meeting students in their individual technology spaces, creating a community for student engagement, and learning through informal spaces. Students receive feedback they can apply based on the instructor's multiple reviews of their performance, unlike a one-time skill review done in class. Students benefit from using Flipgrid by connecting the instructor's feedback with their physical performance.

During a fitness and wellness concepts course, the instructor appointed students in small groups to create videos on various topics, such as muscular strength, endurance, flexibility, warm-up, and cardiovascular protocols. Individual groups then designed a workout routine using proper techniques, cues, and protocols. Each routine had to be five minutes in length, with each member participating equally. After completing the initial video, students were instructed to view two of their peer's videos for evaluation and post their responses in Flipgrid by using a skills checklist of each category. Each group created video responses related to each topic in conjunction with the American College of Sports Medicine protocols. Students in the kinesiology major need to understand the basic principles of physical fitness training (e.g., frequency, intensity, type, and time), and know the principles and benefits of warm-up and cool-down exercise procedures to be able to appropriately link theory to practice (Society of Health and Physical Educators, 2020).

In an introductory education course, randomly assigned groups were assigned one of four educational philosophies (scholar academic, social efficiency, learner-centered, and social reconstructivism). The students were tasked with recording a four minute philosophy synthesis based on how it impacts the teacher, children, learning, knowledge, and assessment. Students in an educator preparation program need this information to create effective lessons. One disposition component necessitates that students understand and respect learning theory when developing lessons (Council of Chief State School Officers, 2013).

Through these assignments, students were able to watch and critique their own performance, and view the individual criteria for each workout critically from an instructor's viewpoint for protocols, technique, and safety. Viewing and responding as a potential instructor allowed students to actively apply learned information.

Skill Evaluation and Assessment

Authentic assessments take up valuable in-class teaching time while allowing for a critical evaluation of skills and abilities. Performance assessments enhance an educator's determination of student understanding of the information, and materials or skills presented. Written descriptions of how to teach or perform a skill does not show the full breadth of knowledge and abilities of our undergraduates. Encouraging students to explain and/or demonstrate what they have learned and know on a video platform allows for a more accurate assessment of their cognitive understanding and physical abilities related to the information presented during a given course (Dunbar, 2019).

When physical education teachers are required to assess and evaluate their students' performance of motor skills many times their students must evaluate each other due to class time constraints. Peer evaluations of skill

performance affect the reliability and validity of the test administered. To maintain the integrity of individual skill assessments, Flipgrid allows for a more consistent evaluation by the instructor for individual students related to their skill acquisition and performance. Flipgrid was used by some instructors to assist with individual skill evaluation providing a higher quality assessment and stronger feedback from the instructor. This is especially important when teachers are assessing students within a physical education setting who are on an Individualized Education Plan (IEP).

Pre-professional students in an Adapted Physical Education class administered the Test of Gross Motor Development (TGMD) on students from local adapted physical education classes. The TGMD was prepared on Flipgrid with the master grid named TGMD test and 12 topic cards were uploaded describing each motor skill component (i.e., dribbling, throwing, striking, and kicking). Each topic included the description of proper mechanics of the skill and videos of the college students performing a skill properly. Two college students were paired with one public school student to teach and record all 12 gross motor skills. Students taught their assigned student the skill, allowed them to view the video of the skill, and then record the student executing the skill. The primary reason for utilizing the video platform was to allow the student instructor to review the skill when scoring the motor skill for the final report. This also gives video evidence of individual students improving on an IEP from one parent meeting to the next.

Figure 2. Example of administration of TGMD test.

Conclusions

Flipgrid is an online platform that offers students a chance to connect with the instructor and materials more often, and within their comfort zone (Moran, 2018). The majority of current university students are millennials, who have exhibited boredom with traditional teaching methods (Wood, 2018). These millennial students experienced a narrow and prescribed K-12 curriculum disengaging them from creative opportunities (Morgan, 2016). The Society of Health and Physical Educators (2020) encourages the use of technology within the physical education classes at all levels. Therefore, colleges and university programs must employ better time management opportunities, more creative lessons, increased peer-to-peer, and student-to-faculty relations (Wood, 2018). When students demonstrate their knowledge and skills through video recording, it allows the instructor to provide a more critical and accurate assessment of their knowledge and skills (Dunbar, 2019).

As presented in the information and examples provided, the Flipgrid video platform provides students with more learning avenues and increased opportunities to receive the constructive feedback necessary for skill acquisition. Flipgrid integration not only benefited the students, it also impacted instructional methods. This platform simplified information dissemination, student assessment, and increased student engagement. It also increased course time for hands-on instructional activities and the individualized feedback necessary for student growth. Flipgrid allows instructors to expand learning opportunities beyond the scheduled course time. The platform increases connections via personal two-way communication and increases efficiency in group assignments. Working in groups or individually allowed students to become more attuned with evaluating and constructively critiquing each other ultimately increasing individual learning.

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