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ARTÍCULO / ARTICLE

Music Teachers' Use of Online Video Platforms (OVPs) in Lesson Design and Instruction

O uso de plataformas digitais de vídeo no preparo e nas aulas de música

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Resumen: New technological developments and the popularity of the internet have changed the ways that people learn, listen to, make and teach music. Many music teachers now use a variety of digital tools to enhance their students' learning in the classroom. However, the use of technology in music education, and particularly videos, is still an under-researched area. This paper reports on an exploratory investigation of music teachers' use of online video platforms (OVP) such as YouTube, Vimeo, Panopto, and Dailymotion in lesson design and instruction. Through an online survey with 21 American music teachers, we gauged: (1) the frequency of use of videos in lesson design and teaching, (2) types of videos used by teachers, (3) the qualities of videos that teachers used, and (4) whether there were differences in video usage between grade levels and modalities of their music class. Findings suggested that music teachers frequently used OVPs both when planning and instructing their lessons, believing that such uses would make their lessons more engaging. Implications for music education are outlined at the end of the report.

Palabras clave: Online Video Platform, Youtube, Online Videos, Multimodal Learning, Music Technology.

Abstract: O desenvolvimento de novas tecnologias e a popularidade da internet têm transformado nossos modos de ouvir, fazer e ensinar música. Muitos professores de música fazem uso da tecnologia em suas aulas de música com o intuito de enriquecer as experiências de seus alunos. No entanto, ainda há poucos estudos sobre o uso da tecnologia na educação musical, e, sobretudo, o uso de vídeos. Neste artigo, discutimos os resultados de um estudo exploratório acerca do uso de plataformas digitais de vídeo como YouTube, Vimeo, Panopto e Dailymotion, por professores de música norte-americanos e em suas aulas. Através de um survey com 21 professores, nós investigamos: (1) a frequência de uso de vídeos no planejamento e nas aulas de música, (2) os tipos de vídeos utilizados por professores, (2) as características dos vídeos utilizados em aulas de música, e (4) se há diferenças no uso de vídeos em aulas de música por ano letivo e modalidade (orquestra, banda, coral, e musicalização). Os resultados do survey sugerem que os professores de música usam plataformas digitais de vídeo no planejamento e nas aulas de música, acreditando que os vídeos tornam as aulas mais ricas e interessantes. Implicações para a educação musical são delineadas ao final do artigo.

Keywords: Plataformas Digitais de Vídeo, Youtube, Videos, Aprendizagem Multimodal, Tecnologia Musical.

1. Introduction

When the Korean popular (K-pop) song «Gangnam Style» was released in 2012, it became extremely popular. Sung by Korean singer Psy, this song spread out quickly through a music video posted on YouTube, finally reaching 3.43 billion views within five months ("Gangnam Style," 2019). The impact of Psy's music video was huge: It reached the top rank in music charts of many countries, and people around the world sang «Gangnam Style» and imitated his famous «horse dance.» Many political leaders such as U.S President Barack Obama, and United Nations Secretary-General Ban Ki-Moon also attempted the horse dance («Gangnam Style,» 2019). Another recent example is «Baby Shark», a Korean children's musical video that went viral, making the analogous song one of the first of its kind to hit the charts (Basu, 2019). «Baby Shark» is possibly one of the most well-known songs of young children and their parents, and there is now an industry of toys, books and other gadgets on the theme. Without video sharing platforms like YouTube, the success of «Gangnam Style» and «Baby Shark» would be unlikely.

According to a report by YouTube (2019), humans across the world stream and watch over a billion hours of video, generating billions of views (and dollars!) every single day. Approximately 300 hours of video are uploaded to YouTube every minute. With a simple click on any mobile device, such as a smartphone, tablet or computer, once can easily access YouTube, upload, download, view and share videos. Viewers can also make comments on videos and share useful (and at times, not-so-useful) information through YouTube. With these added functions, even more people have been exposed to YouTube since its launching in 2005. The popularity of YouTube has impacted the job market as well. Nowadays, individuals from all over the world are working as content creators (sometimes known as «Youtubers») and gaining popularity from the videos that they post on the platform. A survey reported by the English newspaper «The Sun» (2017) suggested that more than one third of school-aged children between 6-17 years desired to become a «Youtubers» (34.2%). This shows how much YouTube has permeated people's lives. Not only has YouTube rapidly developed during the last decade, but so have many online video platforms (OVPs) such as Vimeo, Panotop, and Dailymotion, to name a few.

As online video platforms become more popular, so does the use of online videos in classrooms (Ho, 2004; Savage, 2007; Upitis et al., 2016). In the music classroom, many teachers can now stream, download and show a variety of online videos to provide more stimulating and relevant materials to their students. Music teachers can illustrate music fundamentals such as chords, scales, and the basics of music form using useful examples available on YouTube and other online video platforms. They can also show students performances by different conductors, orchestras and companies that are archived on these online video platforms (Smith, 2011). Furthermore, they can provide students with a list of helpful instructional videos, which allows students to learn musical instruments for free, in and out of schools (Kruse & Veblen, 2012). In short, online videos can be used to enhance students' musical learning in many ways.

Although the use of online videos in music classes appears to be increasing, there are still conservative views towards using digital tools in formal music education (Savage, 2007). Some music teachers continue to hold on to traditional values and beliefs toward the production of musical sounds and the teaching of music skills, aimed

primarily at instrumental and vocal performance (Lamont, 2002). These music teachers warn us about the use of online videos potentially resulting in teachers who spend less effort in their teaching, by filling up too much of their class time with online videos (Smith, 2011), which can be interpreted as a distraction or as pure entertainment, without clear educational goals. Others argue that classroom management becomes even more challenging when using new technologies (Savage, 2007). Along the same lines, some students feel that onsite activities such as singing and instrument learning are better taught through human demonstrations than online contents (Ho, 2004).

While there are both positive and negative views toward the use of videos in classrooms, many music educators concur with the idea that music teachers should be able to connect instruction with the forms of communication that their students are most familiar with (Rudolf & Frankel, 2009). There is some consensus that recent technological advancements, and particularly online videos, have made students more accustomed to their multimodal information. Many American students use smartphones as their main tool for communication (Pew Research Center, 2018), with videos being constantly created, viewed, and shared. YouTube is also considered to be the most popular online platform used among American teens (Pew Research Center, 2018), and the second-most visited website on the Internet in 2019, surpassing Facebook and Wikipedia (Alexa, 2019). Thus, if teachers ignore the ways that students learn and communicate, including through the use of online tools and videos, school music education may be perceived as outdated or even irrelevant for students (Attwell, 2006, as cited in Salavuo, 2008). As Moore and colleagues (2007) contended, to be more relevant, educational institutions should become a «learning environment that challenges students to become actively engaged and independent lifelong learners, inside and outside of formal learning spaces» (p. 51).

The use of online video platforms has also increased in school music education, which has led many researchers to research this phenomenon. Whitaker and colleagues (2014) conducted a content analysis to examine viewers' responses to online videos related to music education. The authors analyzed 7,332 comments from 205 YouTube music teaching videos (e.g., tutorials, classroom instructions, lessons, and ensemble rehearsals). The findings showed that the most common comments were personal experiences related to video contents (33%), followed by negative (29%) and positive feedback (26%), with school-aged students amongst the commentators. Whitaker and colleagues concluded that instructors should select music videos carefully because students may be exposed to negative comments and incorrect information.

Despite much theorizing on uses of online videos by common users across the globe, including students, few studies to date have focused on teachers' uses of online videos in lesson design and instruction. Such information is central, not only due to its relevance for the music classroom, but also for music teacher education.

2. Teachers' use of online videos in lesson design and instruction: An exploratory study

To partially fill this gap in the literature, we conducted an exploratory study to investigate music teachers' use of online video platforms (OVPs) in lesson design and instruction. An exploratory study is one that «is not explicitly intended to test hypotheses (as in basic research) nor to solve practical problems (as in applied

research) but is used to make initial forays into unfamiliar territory when studying new or poorly understood phenomena.» (Colman, 2015).

After obtaining approval from the Institutional Review Board (IRB) of the University of Southern California, a survey was designed with the aid of an online survey software called SurveyMonkey. The survey was divided into four main categories or parts: (1) frequency of use, (2) qualities of videos, (3) teachers' beliefs about the use of OVPs, and (4) demographic questions. There were 21 questions in total. Some questions required respondents to rank their answers or rate them using 5-point Likert scales, while others were in open-ended form, and solicited opinions and information on teachers' beliefs and uses of online videos in their classrooms. The online survey was distributed via email invitations to a sample of convenience (Creswell, 2017). Upon completion of the survey, participants were also asked to forward the survey to their acquaintances, as is typical of snowball sampling (Creswell, 2017). The survey was open for one month. Data was subsequently analyzed using descriptive statistics.

2.1. Participants: Our teachers

The participants were 21 active music teachers, who were working with students in schools serving from pre-Kindergarten to high school grades in the United States. With the exception of two teachers who did not inform their age, most teachers (N=19) in this study were younger than 50-years-old, with the majority at the age bracket of 31-40 years (n=10). Only one teacher reported being older than 50 years. The average years of teaching in our sample was 9.7 (SD=5.18) years (range =1-20 years). More than half of our teachers (n=13) were working at public schools at the time of data collection. In terms of types of appointments, 79% of our participants held full-time appointments as music teachers, with only 16% reporting that they held part-time teaching positions. Teachers in our study were teaching general music (47%), orchestra (42%), choir (26.32%), and band (26%). Aside from these main areas, some participants also reported teaching music technology (21%), music theory (16%), and music history (10%), and a small proportion of them also reported teaching musical theater, Korean drumming, pop combo, Mariachi, and music appreciation in their schools.

3. Findings

3.1. Using OVPs in Music Teaching and Learning

We asked teachers to rate their uses of OVPs in lesson planning and instruction on a scale of 0 (never) to 5 (frequently). Means and standard deviation for each question are presented in table 1.

Table 1. Teachers uses of OVPs and other videos in lesson planning and instruction.

| Question | Mean | Standard Deviation |
|--|-------------|---------------------------|
| How often do you use videos from online video platforms (YouTube, Vimeo, Panopto, etc.) in your classes? | 2.52 | 1.16 |
| How often do you use OVPs in lesson planning and design, and in teaching small ensembles? (14 responses) | 2.00 | 1.31 |

| Question | Mean | Standard Deviation |
|--|------|--------------------|
| How often do you use OVPs in lesson planning and design, and in teaching large ensembles? (16 responses) | 3.50 | 1.06 |
| How often do you use OVPs in lesson planning and design, and in teaching general music? (14 responses) | 2.28 | 1.20 |
| How often do you assign videos for your students to watch as part of their homework? | 1.38 | 1.07 |
| How often do you ask students to create videos and use them in your class? | 0.71 | 0.90 |
| How often do you create videos and use them in class? | 1.14 | 1.10 |
| Overall, how often do you have students watch all types of videos in class? | 2.14 | 1.01 |
| In your view, how often do students watch online videos over the course of a typical school week? | 2.42 | 1.12 |

The result of this small-scale study showed that most teachers used online videos in their classes frequently. More than half of the surveyed teachers (61.09%) indicated that they frequently (42.86%) or always (19.05%) used online videos when teaching music. Among 21 participating teachers, only one reported never using online videos in the music class. OVPs were used to some degree in general music, small and large ensembles classes with no significant differences in terms of their frequency ($p > .05$).

Much to our surprise, music teachers in this study rarely assigned videos for their students to watch as part of homework or they asked students to create their own music videos. When we compared teachers' responses regarding requests for students to watch videos and create videos, the latter was rated lower ($t(21) = -2.46$, $p < .05$, two-tailed). Additionally, music teachers reported that they rarely created their own online videos to use in their classes. What these findings suggest is that teachers used videos primarily to model performance and instruction, but not necessarily as a resource for students to create their own music or to evaluate student performance and composition skills. This interpretation aligns with some of the teachers' responses to the open-ended questions at the end of the survey:

«I sometimes recommend students to watch videos of technique practices on YouTube.» (teacher 1)

«The use of videos helps student learning as they can right away see and hear examples of what we are trying to teach. As a band teacher I can't transport my students to see drum and bugle corps or college bands, but I can bring the ensembles to class in an instant.» (teacher 18)

«Very advanced ensemble (watch as reference point) as well as pop/eclectic lessons where covers/music videos are used as reference.» (teacher 15)

Interestingly, only one teacher spoke of having students create videos in class. And another teacher considered our question of assigning videos as something to experiment with:

«I never thought of assigning students to create their own videos. Maybe I should make students create their own.» (teacher 11)

Thus, it was clear from our data that OVPs (and videos in general) are important tools for music teaching and learning. But what types of videos did our teachers prefer to use in their classrooms? How were these resources selected?

3.2. Selecting Videos for Music Teaching and Learning

Music teachers in our study were asked to consider and rate 10 factors when selecting videos for effective use in their classes, using a scale from 0 (not important) to 4 (very important). Means and standard deviation for each factor are displayed in table 2. As can be seen in table 2, participating teachers in this study rated age-appropriateness of video content, and links with lesson content highest, followed by the quality of musical performances and interpretation. The next factors were language, musical genre, and image quality. Interestingly, comments from viewers, number of views and originating area or country were the least important factors when selecting OVPs.

Table 2. Factors taken into consideration by teachers when choosing online videos for lesson planning and instruction.

| Factors | Mean | Standard deviation |
|--|------|--------------------|
| Musical quality (musical performance and interpretation) | 3.42 | 1.01 |
| Image quality | 2.68 | 1.05 |
| Lesson content | 3.52 | 0.96 |
| Age-appropriateness of content | 3.52 | 0.61 |
| Language | 3.15 | 1.06 |
| Musical genre | 2.78 | 1.08 |
| Comments from viewers | 1.00 | 1.32 |
| Number of views | 0.84 | 1.25 |
| Originating area/country | 0.68 | 1.15 |
| Inspirational message | 1.57 | 1.34 |

3.3. Beliefs about the Use of OVPs in Music Classrooms

When asked whether videos help or hinder student learning in the music classroom, most teachers agreed with the former. But they also believed that videos should be used carefully, to maximize their learning potential. In their own words:

«It helps, but the same as an instrument or a piece of staff paper helps. It is one tool that is available for musicians.»(teacher 6)

Other teachers shared the view of videos being helpful in the classroom only when they are used purposively and when student engagement is evident:

«Video use can help student learning as any resource can. It must be used intentionally and judiciously.» (teacher 8)

«Depending on what is the lesson/unit goal, videos may help a lot. For instance, when learning about instruments or different types of ensembles, the visual and aural aspects of a video will definitely help kids to understand and associate the sounds with the images much faster than just looking at a pure picture or simple chart with simple definitions. As long as students are not passively watching videos throughout the whole lesson it should be very productive. If they are being engaged to answer questions, paying attention to specific details or taking notes (depending on group age), and have the teacher's guidance, videos in the music classroom do help a lot.» (teacher 1)

When asked which specific contents of OVPs would be better suited for the music classroom, teachers offered:

«Yes, [some videos are more appropriate for the classroom]! Learning about instruments, ensembles, and world music. This way students can see how instruments are performed and listen to their sounds at the same time. Same thing when learning about different ensembles and world music.» (teacher 5)

«I use videos frequently in music appreciation classes, but seldom in chorus classes. Classes where students are creating music themselves are less suited to watching videos than classes where students are learning to listen to and analyze music.» (teacher 7)

«[Videos are better suited] in very advanced ensembles (watch as reference point) as well as in pop/eclectic lessons where covers/music videos are used as references.» (teacher 15).

Yet, some teachers mentioned the issue of access as a limitation to using videos in their classrooms.

«Use of OVPS in general music is good if you have equipment in your classroom.» (teacher 19)

«I do not have a smart board in my classroom so I do not have access to use videos in my classroom.» (teacher 14)

In sum, while many teachers believed that online videos were useful resources to demonstrate different instruments and different types of ensembles, they also agreed that videos could make students more engaged in learning when used purposefully. OVPs were used (by those who had access as visual aids, to demonstrate specific aspects of instrumental or voice performance technique, to view other performers, and to showcase unfamiliar genres and styles. When asked about their favorite videos used in the classroom, teachers offered a list of videos from TED talks, TED-Ed, classical music, US Army band, jazz, and pop music, as well as teacher-created videos (unlisted on YouTube).

Finally, when asked for advice about the use of videos in music classrooms, this is what teachers in our study offered:

«Try to make it as interactive as possible: share videos that students create or start a discussion afterwards.» (teacher 2)

«Watch it before you show it, be sure to mute the ads and keep a paper near the projector lens in case you need to cover it!» (teacher 3)

«Use technology if you feel comfortable with it. Always watch it on your own first, especially if it's YouTube. You never know what advert will come

up or if there are any bad words or not-appropriate images. Also, remember nothing replaces the real thing: you and your students making live music together.» (teacher 7)

«Videos should not replace you teaching the lesson. They are mostly a motivation tool or a resource when trying to exemplify or expand some concepts. In addition, watching videos should never be a passive activity. Adjust the activity that should take place along with the video to the kids age (like simple questionnaires, or order of events sheets, or filling in blanks, etc.). This way kids will be focused and on point with the learning target.» (teacher 10)

«Use it as an engagement tool to enhance your content/point, not to teach the lesson for you. You're not replaceable... yet.» (teacher 19)

«Always see the video yourself first! Be ready to pause to make comments, if you disagree with it say 'why!'» (teacher 21)

The findings of this study revealed that music teachers frequently used online videos in their music lessons. Online videos were viewed as engaging tools that could maximize students' learning outcomes. To provide meaningful and appropriate online videos to their students, music teachers considered age-appropriateness of content and links with content when selecting online videos. Although music teachers in this study believed that online videos were useful resources to motivate their students, they suggested that those videos should be purposefully used as visual aids such as demonstrating different types of instruments and ensembles or specific instruments and voice techniques.

4. Discussion & Conclusion

This study was conducted to explore how online videos were used in music classrooms in the United states. Although we assumed that many music teachers used OVPs in music classes, we had little information about frequency of use, the types of videos that teachers used and what qualities did they value when selecting videos for their students, and whether there would be differences between use of videos across grade levels and learning modalities (e.g., orchestra, choir, band, general music). To answer these questions, we conducted an online survey directed at music teachers, who were working in regular schools.

Overall, findings from our study revealed that music teachers used OVPs in planning and instruction. This finding is in contrast with previous literature suggesting that music teachers held conservative views toward using online tools in music classrooms (Savage, 2007). What our findings seem to suggest is that teachers have become increasingly more comfortable with technology in the music classroom, believing that online videos would make their lessons more fun and engaging. Teachers in our study also recognized, to some extent, that OVPs are an integral part of students' everyday lives, which aligns with recent work on the multimodality of learning (Godinho, 2016; Lewis, 2018; Love, 2005).

In addition to the abovementioned key findings, three main points regarding the use of online videos in music classrooms are worthy of commentary. First, our initial expectation was that teachers who frequently used online videos most likely taught general music. However, the findings of this study revealed that many teachers who were teaching large ensembles (e.g., orchestra, choir, and band) also used online

videos in their classes. As students in these classes typically spend more time on performing music, we expected that online videos would be less suited for use in these classes. But instrumental teachers in our study used OVPs to demonstrate specific performance techniques, to have students listen to performances by different artists, and to experience new repertoire. One participating teacher also mentioned that «assigning homework which has to be returned in video format is effective for students' learning and monitoring their progress» (teacher 8). Future research could examine whether this tendency to use videos as a form of assessment in the instrumental class is increasing, and if so, how are these assessments being constructed and graded.

Second, many music teachers in this study considered age-appropriateness to be a significant element when selecting online videos for their classes. This is not completely surprising given the way curriculum is structured in schools. As noted earlier, it was also surprising that teachers working in general music (which occur frequently in elementary school) reported a lower usage of videos in their classrooms than students working in ensembles. There are some possible reasons for this and one is the playful nature of music education in the elementary grades (Campbell & Scott-Kassner, 2017). Elementary music teachers are also known to engage children in different motions, and to plan lessons that are active and engaging. Alternatively, it is also possible that participating teachers were following the recommendations of the American Academy of Pediatrics, which recommended limited screen time for children (Yogman et al, 2018).

Third, and in spite of the ubiquity of video in students' lives, it was surprising to see that most teachers did not ask their students to create videos. This is surprising as many students now use smartphones, they can easily create videos and upload them. Also, many teachers in this study mentioned that students seemed to be more engaged when they saw performers of their own ages or see videos created by others in the classes. Thus we would expect a higher number of reports of videos being created in the music class. One of the teachers even shared two videos of his former students performing in a flash mob in two shopping malls. This teacher commented that these videos were used as «an example of accomplishment to inspire other students» (teacher 17). This was consistent with a previous study that noted how watching videos of musicians of similar ages helps students make connections between video contents and their own experiences (Smith, 2011). Thus, creating videos in the music classroom can be useful in many ways. For instance, in the orchestra class, teachers might assign students to certain musical excerpts to practice and then make videos and upload them to the class website (when available). Teachers can also save time when evaluating students' performance through video assessments. Furthermore, teachers can invite students to create videos of their own compositions and creations, and upload them. But we would be remiss if we did not mention the issue of access to technology as one of the possible reasons as to why teachers in our study did not assign videos as homework or as creative projects for their students. As technology becomes less expensive and more accessible, we hope that music teachers will consider incorporating videos into their lesson planning and instruction, in the near future.

Although the present study is exploratory in nature and our sample small, we conclude this chapter by reinforcing the role of technology, and moreover, videos, in contemporary music education. We know from brain research that music learning makes demands on different sensory modalities. Children and youth today are growing up immersed in technology. Furthermore, the way they listen to music today is very

distinct from the ways through which many of us have listened to music. Multimodality, or the integration of multiple sensory modalities, like the visual and the auditory, in this case through image and sound, is extremely important for this generation of students. «Gangnam Style,» «Baby Shark» and other songs that went viral provide evidence to this important form of music listening in our current times. We end this chapter with a call for action. If we wish to remain current and to be relevant in our students' lives, then we must find ways to better understand multimodality, technology and learning, and integrate these ideas into our teaching, as many of the surveyed teachers from our study are currently doing. As some of our participants stressed, videos can be excellent tools when used judiciously. Teachers can enhance student learning through the use of videos. Further research is also warranted.

5. Referencias

- Alexa. (2019). «Alexa's Top 500 Global Sites.» Retrieved from October 27 from <http://www.alex.com/topsites>
- Basu, T. (2019, January 15). The science of why «Baby Shark» is so freaking catchy. *The Daily Beast*. Retrieved from: <https://www.thedailybeast.com/the-science-of-why-baby-shark-is-so-freaking-catchy?ref=scroll>
- Campbell, P. S., Scott-Kassner, C., & Kassner, K. (2017). *Music for elementary classroom teachers*. New York, NY: W. W. Norton & Company.
- Colman, A. (2015). *A dictionary of psychology*, 4th
- Creswell, J. (2017). *Educational research*. Upper Saddle River, NJ: Pearson.
- Dirnhuber, J. (2017, May 2) Children turn backs on traditional careers in favour of internet fame, study finds. *The Sun*. Retrieved from <https://www.thesun.co.uk/news/3617062/children-turn-backs-on-traditional-careers-in-favour-of-internet-fame-study-finds/>
- Gangnam Style. (n.d.). In Wikipedia. Retrieved October 5, 2019 from https://en.wikipedia.org/wiki/Gangnam_Style
- Godinho, J. C. (2016). Miming to recorded music: Multimodality and education. *Psychomusicology: Music, Mind, and Brain*, 26(2), 189-195.
- Ho, W. C. (2004). Use of information technology and music learning in the search for quality education. *British Journal of Educational Technology*, 35(1), 57-67.
- Kruse, N. B., & Veblen, K. K. (2012). Music teaching and learning online: Considering YouTube instructional videos. *Journal of Music, Technology & Education*, 5(1), 77-87. DOI: 10.1386/jmte.5.1.77_1
- Lamont, A. (2002) 'Musical Identities and the School Environment', In R.A.R. MacDonald, D.J. Hargreaves and D. Miell (eds.) *Musical Identities* (pp. 41-59). New York: Oxford University Press.
- Lewis, J. (2018). Parents, children, and the popular music that binds them: New family dynamics and what they mean for community music. *International Journal of Community Music*, 12(1), 79-94.
- Love, M.S. (2005). Multimodality of learning through anchored instruction. *Journal of Adolescent and Adult Literacy*, 48(4), 300-315.
- Moore, A.H., Fowler, S.B. & Watson E.C. (2007). Active learning and technology: Designing the change for faculty, students, and institutions. *Educause Review*, 42(5), 42-61.
- Pew Research Center (2018). *Teens, social media and technology*. Retrieved from: <https://www.pewresearch.org/internet/2018/05/31/teens-social-media-technology-2018/>
- Rudolph, T. E., & Frankel, J. (2009). *YouTube in music education*. Milwaukee WI: Hal Leonard Corporation.
- Salavuo, M. (2008). Social media as an opportunity for pedagogical change in music education. *Journal of Music, Technology & Education*, 1(2-3), 121-136.

- Savage, J. (2007). Reconstructing music education through ICT. *Research in Education*, 78(1), 65-77.
- Smith, H. M. (2011). Global connections via YouTube: Internet video as a teaching and learning tool. In Biamonte, N. (Ed.), *Pop-Culture Pedagogy in the Music Classroom: Teaching Tools from American Idol to YouTube* (pp. 29-43). Plymouth, England: Scarecrow Press.
- Upitis, R., Abrami, P. C., & Boese, K. (2016). The use of digital tools by independent music teachers. In I. A. Sanchez & P. Isais (Eds.), *Proceedings of the International Conference on Mobile Learning* (pp. 108-112). Vilamoura, PT: International Association for the Development of the Information Society.
- Whitaker, J. A., & Orman, E. K. (2014). A content analysis of responses to music teaching videos on YouTube. *ISME Commission Research Proceedings*, 330.
- Yogman, M., Garner, A., Hutchinson, J., Hirsh-Pasek, K., Golinkoff, R.M. (2018, October). The power of play: a pediatric role in enhancing development in young children. *Pediatrics*, 142(3), 1-16.
- YouTube. (n.d). Retrieved October 5, 2019 from <https://www.youtube.com/about/press/>

