# Digital Ethics in Practice: Implementing Ethical Principles to Guide Participatory Use of Videorecorded Instrumental and Vocal Lessons in Higher Music Education

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**Abstract.** In this study we reflect sustainable and responsible use of digital content in instrumental and vocal pedagogy. The aim of this contribution is to raise awareness of ethical principles toward responsible use of videography in instrumental and vocal (higher) teacher education and professional teachers' development. Finally, our aim is to provide pedagogical recommendations for teachers in the ethically justifiable use of videorecorded instrumental and vocal lessons. We take into account the perspective and feelings of all stakeholders, as well as ambiguity, complexity and diversity in data interpretation.

Keywords: digital ethics, videorecorded instrumental and vocal lessons, music education, reflective practice

## 1 Introduction

Technological advancements necessitate continual, in-depth, and reflexive considerations. The use of digital content with videos has increased in higher music education for in-person and virtual classes (Doerne & Lessing 2020) and continues. Although video recordings can refer to a plethora of categories, for instance teacher-recorded, student-recorded, publicly-available video content (e.g., youtube, TED talks), supplemental online course content, and so on, here we address videorecorded instrumental and vocal lessons. Video use in this case refers specifically to one-to-one instrumental lessons taught synchronously and live by graduate students to their own music students. These lesson videos were recorded themselves, then reflected upon with graduate peers as homework assignments in an instrumental pedagogy class. The students were required to choose three minutes of the lesson, cut the video and share this part with their colleagues. We challenged the students to consider the necessity of conscious distinction between observation, interpretation and evaluation (Rosenberg 2016) while collaboratively reflecting their videos.

As Selwyn (2019, p. vi) noted, "The fast-changing nature of scholarship and knowledge" normalizes digitally-networked interactions and communications. Improved equipment and increased possibilities of new technologies, like video recordings, have become increasingly popular in classroom settings. From the stages

of preparation and production to analysis, teacher-researchers must consider legal and ethical implications of videography with respect for subjects' rights.

Despite these challenges, video recordings in teacher education offer the possibility to overcome long-standing theory-to-praxis problems that many teachers face:

> "there are films that show particularly sensitive people such as children and adolescents or people with health impairments, in which situations are presented that pose challenges for teachers and are therefore at the same time suitable for enabling problem-oriented learning by students. It is precisely because of this that they offer a special potential for analysis with students in courses, have so far hardly been considered in the literature." (Sonnleitner, Manthey & Prock 2020, p. 233)

Desiderata within the field of music education includes data protection laws and in-depth ethical discussions of videorecorded lessons in teacher education (Sonnleitner, Manthey & Prock 2020, p. 233). "Numerous videorecorded teaching situations run the risk of exposing or damaging filmed people through a targeted video cut of the raw data material" (Sonnleitner, Manthey & Prock 2020, p. 232).

The main aim of this contribution is to raise awareness of digital ethics with the use of videography in higher music education so that students who actively teach (e.g., graduate music education students who simultaneously teach their own music students) may sensitively observe, interpret, and assess learners. Video-recorded instrumental and vocal lessons of their teaching can be reflected on collaboratively and used as a learning tool. The research question is: how might students observe, interpret, and evaluate videorecorded instrumental and vocal lessons in exchange with colleagues?

We suggest field-specific ethical principles as important for music education, emphasizing peer feedback in order to create a collaborative and participatory culture. Wilkens and Shin (2010) stated that peer feedback promotes dialogue, encouraging students to see others' teaching and learning approaches. This can help students verbalize their own experiences and identify unconscious knowledge, to question and reflect on behaviors and attitudes in music lessons, and to critically examine alternative or innovative ways of thinking and acting. Further considerations for the implementation of ethical principles may emerge with the use of intentional processes, such as a community of practice (Lave & Wenger 1991). Communities of practice are groups that accept new members who adhere to the established normative practices of the group (Lave & Wenger 1991). A community of practice is a collaborative endeavor, upholding group norms, which ideally facilitates the presence and expression of diverse perspectives as the group works together toward a particular goal.

Ethics are an integral part of research from beginning to end, and ethical compliance is pivotal to achieve research excellence (European Commission (n.d.): "Ethics," ¶ 1

[para.]). According to Clausen (2009), whose definition we used in developing ethical principles, responsibility is made up of a subject (who takes responsibility), an object (for what), one or several addressees (to whom) and those with decision-making power (why). With a framework of Responsible Research and Innovation (RRI), scientists attempt to think critically about an alignment of innovation and considerations of pressing societal issues. While upholding strong ethical stances, researchers consider communities as potential contributors as well as those impacted by innovations. Levikov, Quacinella and Duca (2020) noted that responsible research and innovation necessitates an in-depth consideration of contextual factors that impact research.

In this contribution, we summarize best practices for digital ethics informed by literature (viz., ethical principles of Smith 2003) and use them to discuss participatory scientific research and practices in higher music education. We seek a nuanced reflection that includes curated digital content and students' collective thoughts on its use. In addition, we discuss positionality that informs use of curated digital content. We include considerations for critical response among peers and experts (see Lermann & Borstel 2003) and note the role that holistic, or big picture thinking, can play in the consideration of ethics, including attitudes of inquiry and empathy and the capacity for ambiguity, complexity and diversity (Ford & Chen 2001; Goodenough 1976). A discussion of both ethical principles and pedagogical considerations in the field of music pedagogy then follows.

## 2 Background

Our topic is distilled from a wider inquiry, the Transfer of Knowledge Project *Reflective Practice in the Network IGP.* This project is a research cooperation of the Knowledge Transfer Center (WTZ) south (WTZ Süd, 2017), which is financed by the Austria Wirtschaftsservice Society (AWS) with funds from the National Foundation for Research, Technology, and Development (Austria Fund). The aim is to strengthen processes of professionalization and knowledge transfer within a professional group of instrumental and vocal teachers. The project is characterized by intensive didactic and collaborative exchange toward testing innovative principles of reflection.

Our project is also inspired by a roundtable discussion that was held in December 2020—a component of the aforementioned larger inquiry. We invited varied experts to discuss video content for teaching, as well as overarching topics of data protection and digital ethics. The discussion included use of video recordings in lessons, focusing on ethical standards, as well as data protection and digital ethics.[1] The discussion was framed by the increased use and roles of video in university education and the resulting need for both data protection and security measures, as well as ethical standards to

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[1] Due to COVID-19 restrictions, the roundtable discussion occurred in a Zoom videoconference.

guide practice. The panelists were invited by Kruse-Weber, the lead researcher on the project. The group purposefully represented a variety of perspectives and were identified as contributors by their experiences, which included expertise in digital ethics or instrumental and vocal pedagogy. Kruse-Weber moderated the group with guiding questions, for instance: In which context have you been involved with instructional videos and how can you describe your role? Following, together the group analyzed a video with guiding questions such as e.g. What do you notice? What challenges do you face? What needs to be noted? What is justifiable and useful to record, what is not? What is defensible and useful in further handling of the videos? and What are ethical concerns/reservations teachers and learners have about recording, selecting, and using instructional videos?

Panellists discussed a variety of topics that included knowledge-transfer processes (including digitization), broad societal challenges and a need for positive change aligned with RRI initiatives. This led to another tenant of RRI involving participatory science, specifically crowdsourced scientific inquiry. Panellists sought representation and participation among those with diverse roles, for instance teachers, professors, and graduate students. In addition, panellists affirmed value for the integration of communities of practice into collective processes of problem-finding and solution-identification. The panel recommended generating innovative research in participatory processes that includes a variety of collaborations among communities of practice.

The roundtable discussion provided a foundation for later analysis. It was audio recorded, and research assistants transcribed the discussion. Kruse-Weber and Bucura separately coded the transcript for themes and discussed them in identifying emergent themes. Themes related to both of the overarching topics: data protection and ethical standards. We focus primarily on ethical standards in this manuscript. Major themes related to ethical standards included the following: continual reflection, transparency, and harm avoidance. Participants raised concerns, for instance, about purposes of the video, depiction of those in the video, informed consent to participate in being recorded, and storage and protection of the video recording.

## 2.1 Discussion of Data Protections and Ethics

The roundtable discussion led to insights for ethical principles that may guide use of video in higher music education for videographic instrumental and vocal lessons. We refer to this roundtable discussion as it provided an initial foundation for analysis toward the ethical practices we discuss in this paper. We summarize the roundtable here in two parts: data protection (§2.1.1) and ethics (§2.1.2).

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### 2.1.1 Data protection

Roundtable panellists focused their discussion of data protection on legal guidance and practice. They noted that data protection provides guidance supported by legal terms, ensuring the right of personality and informational self-determination, as well as protection for private citizens from any encroachment upon it. Article 4, no. 1 of Regulation (EU) 2016/679 defined personal data as information that relates to identified or identifiable people (Council of the European Union & European Parliament 2016, p. 33). When enough individual characteristics are shown, the individual's identity can be deciphered, then use of the content without permission is then prohibited (see Aksoy, 2008).

Practical considerations for data protection included privacy, copyright, teacher- and student-preparation, and knowledge transfer processes. Panellists discussed not only whether one should display video content, but also to whom videos might be shown, how much video to show, and the need for a clear rationale for use. Further, panellists discussed the scope of knowledge transfer processes in relation to researchers and communities of practice.

### 2.1.2 Ethics

Dialogue involving ethics was decidedly more practical in the roundtable discussion, although less precise. Panellists posed guiding questions to ground educational researchers in ethical inquiry. While necessary and we include them, their voluntary nature contrasts the obligatory nature of data protection laws.

Panellists considered the feasibility of anonymizing video subjects and determined it could be tedious to carry out and could also disrupt critical analysis by obscuring facial expression, for instance signs of understanding or stress, which are particularly important indicators to be used as teaching tools. Panellists enthused that ethics dictate one speak transparently with those included in the film. Conversations should be open so participants can have ownership of their part, providing autonomy over their own content. Panellists felt however, that social pressure may make it difficult for students to deny consent in the presence of peers.

Panellists stressed that video platforms offer varying degrees of protection, particularly when videos are not hosted on internal servers. Thus, those who intend to use such platforms should consider carefully how to protect subjects' data. They recommended guiding principles for making such decisions and discussed the hierarchical implications of who has control of the video, for instance professors or students.

## 2.2 Responsible Science, Ethics and Pedagogy Scholarship

Authors have discussed ethical considerations in general, both in terms of pedagogy and digitization and media. Blomberg et al. (2013) noted five research-based heuristics to guide video use in preservice teacher education. Specifically: when, how and why one might choose to present video content to students in discussion of affordances and limitations. Blomberg et al.'s suggestions included (1) an identification of learning goals, (2) identification and rationale for instructional approach, (3) specific video materials chosen for use, (4) acknowledgement and articulation of limitations, and (5) alignment with both instructional goals and assessment strategies.

### 2.2.1 Digital material

Widespread societal and technological changes have impacted higher education. For instance, digital media play increasingly important roles in higher education contexts. This is particularly true in current times, as education became largely virtual during the COVID-19 pandemic. According to Pink, Lingard and Harley (2016), novel possibilities exist for the use of digital video pedagogy, which can bring about positive and radical changes. They noted:

> "In a contemporary context where mobile media and technologies are increasingly ubiquitous in everyday life… being at work can be understood as participating in a digital material environment."

The authors use the term *digital materiality*, referencing Pink, Ardevol and Lanzeni (2016), to discuss contexts by which digital forms, materials and designs are integrated as processes of research, design and intervention. Pink, Lingard and Harley noted that not only can these technologies, platforms and content become integrated, but they may also become entangled as individuals navigate their usefulness in professional practice and in relation to one another. While we focus specifically on digital video, we recognize ways digital materials beyond video are emplaced, integrated, and entangled in preservice music teachers' lives both within and outside professional practices.

### 2.2.2 Open software

Technological developments have brought about new possibilities, therefore change, to both science and education. Open platforms, for instance, encourage community participation in science so that global challenges might be considered collaboratively (Pardo Martinez & Poveda 2018). *Open data* is also a term used to describe data creation that involves great public interest (Hasegawa & Asano 2016). Sikder et al. (2019) noted that the term *open* itself, has encouraged new approaches to both science and education.

In a study of RRI implementation in higher education, Levikov, Quacinella and Duca (2020) sought best practices. They noted that academics must maintain an open and receptive mindset, being responsive to societal needs. Authors also stated that academics must foster connections with stakeholders outside universities. Levikov, Quacinella and Duca recommended contextualizing a nuanced understanding of RRI, which in our case highlight diverse voices (for instance university students' own music students) represented in a pedagogical course for instrumental and vocal music teaching.

Additionally, five approaches can be applied to the use of open science (Sikder et al., 2019, p. 412, fig. 80, drawing from Fecher & Friesike, 2014): *democratic*, using so-called "free knowledge"; *pragmatic*, where diverse people like researchers, teachers and students intensively collaborate in order to create; *infrastructure*, using open tools and platforms (video); *public*, a citizen science approach used for identifying participants as well as others; and *measurement*, acknowledging value for possible alternative impacts (e.g., different types of participants, diverse voices).

### 2.2.3 Participatory culture

Current students live in a participatory and often virtually-mediated environment. Jenkins (2006, p. 5) described participatory cultures as low-barrier opportunities to create and contribute while experiencing informal mentorship or support. Jenkins noted that participants should feel socially connected to one another. Particularly due to COVID-19 restrictions, a reliance has developed for digital mediation that can become crowdsourced. The concept of crowdsourcing research builds on communities of practice, highlighting their role in problem-finding and collaboratively brainstorming solutions for a societal benefit.

Music education scholars Hewitt (2009, p. 3) and Shevy (2008) discussed the importance of communities of practice. Hewitt described communities of practice as having distinctive practices and behaviors that define their group identity (e.g., through music creation, performance and consumption). Shevy emphasized extramusical norms exercised by groups that define communities. According to Hewitt (2009, p. 4), three are particularly important in higher music education: pedagogical practices, performance practices, and transmission practices.

In education, learning involves interconnections of experience (prior and current), inquiry, collaboration, information, and so on. These interconnections necessitate group norms that define community practices. Communities of practice may institute norms such as respectful dialogue, mutuality, negotiation and a sense of welcome. In parallel, scientists seek participatory spaces, involving collaboration and a negotiation of varied perspectives. The resulting ambiguity, complexity and diversity of practices is reminiscent of teaching/learning communities of practice.

Pink, Lingard and Harley (2016, p. 5), drawing on Fors, Bäckström and Pink (2013) and Howes (2005), advocated the concept of *emplacement*, suggesting the sensory experience of environment, including virtual environments, is integral to the learning process. Learning, therefore, can be understood as embodied, and furthermore, embedded, enacted, and extended (Schiavio & van der Schyff, 2018), "not as embodied but also as emplaced" (Fors, Bäckström and Pink 2013, p. 182) in an integrated relationship of mind, body and environment. According to Pink, Lingard and Harley (2016, p. 5), approaches in the cognitive and psychological sciences must reconsider digital learning environments to emphasize embodied experiences of technology use. These experiences are impacted by learning environments, whether they are in-person, virtual or hybrid.

Questions persist about the nature of learning and interacting in scientific inquiry. Increasing virtual interactions (e.g., online and hybrid classes) and digital content influence teaching and learning. Historic preservation of digital content is challenging in that it can be ambiguous and open-ended. For example, it can be difficult to maintain a historical record that retains the dynamic nature of commenting, re-tweeting, texting, sharing and so on, that may be decontextualized or lost entirely in records. This is often true, too in educational environments, where differences exist in the preservation of historical records, although conversely so. For instance, person-to-person conversations may be lost in a live class, yet digital mediation may preserve conversations (e.g., digital discussion board or video-recorded breakout room discussion), necessitating continued ethical considerations.

## 3 Discussion

We now discuss digital ethics specifically to music education research and practice. We reflect on research findings against the background of policy- and theory-driven debates about the role of science and universities in society, particularly how digital ethics can be imagined in pedagogical and research use. In this section, we discuss three topics: ethical principles (§3.1), pedagogical considerations (§3.2), and holistic thinking (§3.3).

### 3.1 Ethical Principles

An examination of the ethical implications of increased digitization for research practice and research organization is important. This involves a discourse on digital ethics, which are the ethical aspects of research and design specific to digitization practices and approaches. Such problems may reference the design of digital technologies and products but also reference digital methodology. We focus on the latter. Based on the roundtable discussion, we summarize ethical principles for pedagogical practice.

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Digital tools for pedagogical practice can include, for instance, recordings of online lectures; videos made by teachers and students for tutorials and assignments; YouTube videos used for analysis, evaluation, and modelling; and so on. Videos are particularly valuable for self-reflection. Roundtable panellists noted that students who produced a video tended to practice more, leading to self-reflection, self-organization and self-competence. They noted that recorded videos eliminated problems of poor sound quality, delays and poor internet connections, which can be particularly problematic with digitally mediated and synchronous virtual music instruction.

Ethical principles outlined here involve transparency and explicit voluntary consent. Detailed questions are noted in order to guide practical decisions. Teachers can ask, for example, the purpose of a video, underlining rationale for its use, including whether different people have different purposes, and whose interests the video might serve (and how). These questions can provide varying levels of analysis. The university professor must pose such questions (to themselves and to university students), yet the university students who also teach their own music students should then also consider these questions for their own teaching. Those on the video (possibly young music students and their parents) should similarly be consulted in terms of their role on the video, who might view the video and for what purposes, which provides necessary information prior to their consent (and assent) to use the video. Teachers must weigh potential benefits against harms that might result from a video's use, which can be complex and intersecting. They must also consider what will happen with the video afterward. For example, will it stay within a small circle, become published, or deleted? If published, one may lose control of distribution. What is the context of the video? How does it depict people and the situation? This can be particularly important when subjects perceive they are presented negatively. Imperfect teaching examples, however, are important for student evaluation and analysis, as no human interactions, including teaching, can be deemed perfect. Furthermore, it is important to foster a learning culture with a growth mindset (Dweck 2006), in other words focusing on learning rather than existing ability.

Considerations should also involve informed consent, which is ubiquitous in research. However, in practical teaching and learning, it may be less obvious how to ask for and continually ensure consent. Individuals' rights to be informed are important indicators for whether a video should be made or used; who will record it; and how it will be recorded, stored and shared. Additionally, are there multiple views? If so, what rationale supports the need for them?

## 3.2 Pedagogical Considerations

Here we discuss the importance of reflecting and fostering a reflective disposition, significant goals for teacher educators and students alike. One's reflective skills also

serve a research-minded approach. We focus on the critical response process (Kruse-Weber & Hadji 2020; Lermann & Borstel 2003), which we have used to foster such dispositions. We outline specific principles here to guide practice.

### 3.2.1 Participatory practices

In a community of practice, participants should gain perspectives by learning from and with one another. Diverse perspectives are therefore welcome and necessary. Digital spaces and digital content can serve to build up or perhaps subvert holistic thinking however, possibly skewing broad perspectives. Cheng and Zhang (2017) drew upon the work of Ford and Chan (2001) and Goodenough (1976) to describe holistic thinking as a style of cognition that begins with the big picture. In the first step of the crtical response process learners express overall statements of meanings (Lerman & Borstel, 2003). Holistic thinking therefore involves the whole first (cf. Clarke 1993), providing a foundation on which details can be considered contextually. According to Sandars and Murray (2009), while reflection is known as a tool for lifelong learning and professional practice, undergraduate students must nevertheless learn these skills.

### 3.2.2 Fostering critical thinking

Critical response is one process used to connect to ethics and practice, considering the possibilities of ambiguity, empathy and diversity toward building and furthering a participatory culture.

In music pedagogy we have drawn from critical response process (Lermann & Borstel 2003) to engage student-centered opportunities for gaining skills in reflection, feedback and growth. The pillars of critical response can support a collective and meaningful dialogue. For example, ethical dilemmas (hypothetical or experienced) can be considered collaboratively using video reflection. Such dialogue can engage all members, creating open spaces for diverse perspectives and meanings about teaching and learning, along with the tensions and negotiations inherent that might lead to best practices and personal growth. With critical response processes, participants (e.g., artist musicians, teacher/facilitators, students) progress through five guided stages that first include initial and personal impressions, followed second by neutral and open questions that lead toward an understanding of the learning process or ethical situation. Third, participants formulate feedback through neutral questions that mirror what they noticed or what occurred. Importantly, these questions must be devoid of judgement. A fourth stage follows, in which they express personal opinions, interpretations, and possible solutions. The fifth stage then engages participants in summarizing the discussion and identifying next steps (Lermann & Borstel 2003).

Through such critical thinking, students verbalize their experiences and uncover unconscious prior knowledge. Students engage in a critical examination of alternative

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and innovative ways of thinking and communicating. By not allowing participants to make judgements in CRP, the students are confronted with the challenge of reformulating and revisiting their opinions. Aligned with the work of Dweck (2006), as aforementioned, critical response focuses toward what one is becoming, rather than a deficiency-mindset of what one is not.

### 3.2.3 Ethical principles and processes

Using Smith's (2003) ethical principles for educational research, based on the American Psychological Association (APA, 2021) guidelines, and with inclusion of Blomberg et al. (2013), we summarize ethical principles for research and pedagogical practices (Fig. 1). In addition, we discuss not only the recommendations of ethical practices as principles, but we also consider an implementation of them specific to our inquiry in higher education music pedagogy. Figure 1 therefore also includes both pre- and post- planning and reflection, as well as ways holistic thinking and crucial response can be implemented within a community of practice.

First, we consider that a community of practice is necessary for collaborative and individual reflection. While Lave and Wenger's (1991) notion of a community of practice may appear exclusionary due to the establishment of group norms, normative practices can provide structure by which diverse representation can be upheld. Norms of respect, openness and an atmosphere of welcome, carried out through Hewitt's (2009) extramusical categories of pedagogical practices, performance practices and transmission, support such inclusivity.
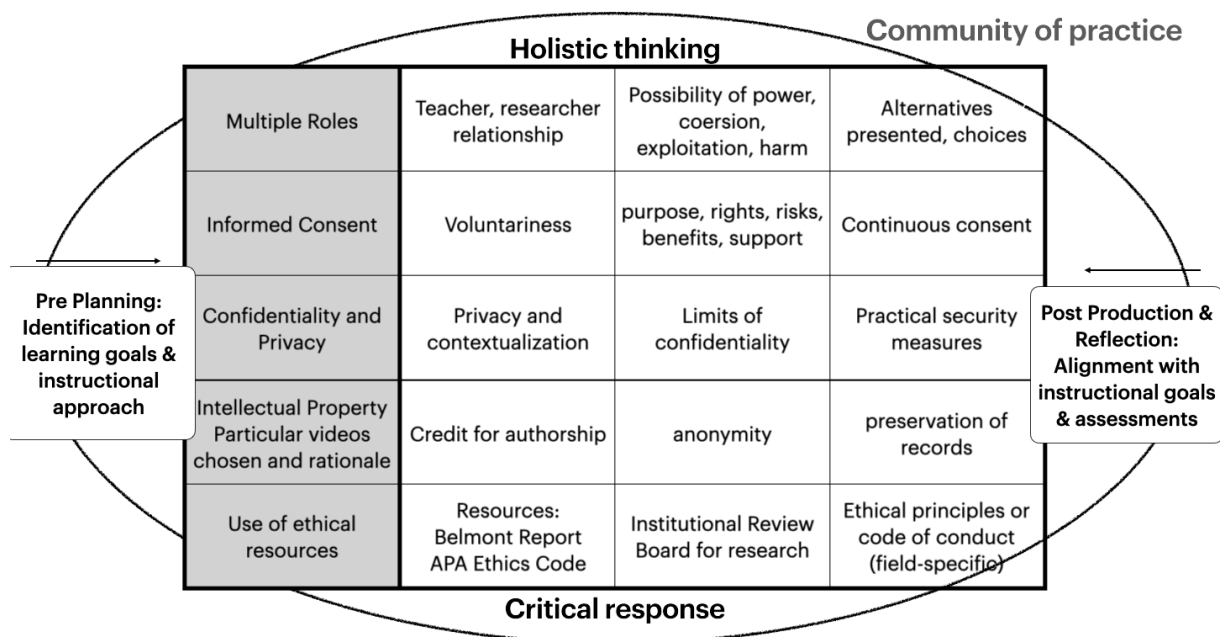


**Fig. 1. Ethical principles and process. (Adapted from Blomberg et al. 2013; Smith 2003.)**

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Holistic thinking (watching, observing) and critical response can inform a practical implementation of ethical principles. Holistic thinking is a whole–part–whole approach to learning: viewing the big picture, delving into contextualized details, and applying it back to the whole. This can be an individual style of cognition, established as a norm in a community of practice, and encouraged through one's facilitation of students' experiences. Initial, open-ended questions can prompt students into big-picture thinking. Critical response process however, necessitates group interactions within the community of practice. Here, students similarly progress through stages that begin with general impressions of the big picture, yet they do so collaboratively in order to gain skills in reflection and a negotiation of perspectives. As learning is both individual and collaborative, holistic thinking and critical response are equally important for student growth.

Also, we consider the significance of planning and reflection for the implementation of ethical principles. An important precursor to ethical video use involves discussing the aims of video use, the content identified for use, and the extent to which students are informed. Practical elements of videography must be considered, for instance camera placement, subjects and framing, context, and so on. Video postproduction demands further consideration: the length of time videos will be stored, selected content to present, and editing practices. These choices can also serve a pedagogical purpose, revealing much about the student who makes these decisions. For instance, editing can highlight confidence or imperfections, which may be instructive, or feign perfection to avoid demonstrating vulnerabilities. Similarly, it can be revealing for instructors to see whether a student shares content from a deficit-model (e.g., mistakes, struggles, frustrations) or a positive orientation (e.g., successes, enthusiasm). These choices may implicate the student's feelings of psychological safety (or lack of) among peers and teachers/researchers.

Smith (2003) noted five categories for ethical practices in educational research, which we discuss in detail below: (1) intellectual property, (2) multiple roles, (3) informed consent, (4) confidentiality and privacy, and (5) use of ethical resources. Blomberg et al. (2013) also noted ethical considerations for the pedagogical use of video content. They highlighted the need to first identify learning goals and to provide a thoughtful rationale for instructional approaches and for video selection. Blomberg et al. also noted the importance of acknowledging and articulating limitations, strategies and reflection in alignment with instructional goals and assessment. Additionally, we include insights from the Code of Ethics of the *Deutsche Gesellschaft für Erziehungswissenschaft* (DGfE; German Educational Research Association; DGfE Council 2016), which provides additional guidelines for pedagogy.

*Intellectual property* provides explicit credit for authorship, considering author roles and the relationship of their contributions to the whole. Authors should ideally discuss

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intended contributions in advance of the work, documenting them carefully. Intellectual property includes topics of confidentiality and anonymity. These are intended to protect contributors' identities and identifying information. Intellectual property also involves authenticity and a careful preservation of records, like safe storage and establishment of trust. These principles coincide with Article 2 of DGfE's Code of Ethics: Publications (DGfE Council 2016, p. 2). Research results should be made available to the public and all project contributors, including predecessors, partners and competitors, who are given explicit credit for their roles.

*Multiple roles*, including intersecting or overlapping roles, are common in educational research. A teacher-researcher must carefully navigate their possibly conflicting roles. Possibilities exist for undue coercion that results from an unavoidable teaching power dynamic. In the lessons, exploitation and harm are possible, even when unintended. Similarly, the graduate students in this discussion are both teachers and students. In a university class they take on the role of student among colleagues, while music teacher to their students. They must navigate their roles carefully to avoid harming their own students. Allowing students (both university students and their pupils) to make alternative choices (for instance not appearing on a video recording but participating in a live peer teaching episode instead) may mitigate potential harm as they navigate these roles and participate in a community of practice. The DGfE Council (2016, p. 3) noted the importance of dealing respectfully and ethically with colleagues and others in the context of research. In Article 5, they stated that rules of good practice are a necessary and worthwhile component of teaching and academic career preparation. Principles of objectivity and justice must be upheld so as not to disadvantage or discriminate others.

*Informed consent* speaks to people's rights (e.g., students, participants) to willingly consent to participate. Specifically, participants must not be coerced, but instead must voluntarily and explicitly consent to participate with an understanding of the purposes and limitations of the study or learning scenario. Consent, however, is continuous, meaning it can be revoked at any time. With digital video content, participants can request that videos of themselves be deleted or de-identified (e.g., blurred face, names cut from the title/label, audio and/or video). Participants must understand their rights as well as the possible risks or benefits of their participation. The DGfE Council's (2016, pp. 1–3) use of informed consent involves respect for a person's identity and integrity, their explicit consent, and confidentiality of data.

*Confidentiality and privacy* overlaps somewhat with informed consent, yet necessitates distinct consideration. Privacy must be contextualized to the specific population and individual. For example, privacy concerns among one group may not be problematic to another. While one individual may express comfort with personal data included on video content for continuous use, another may stipulate concerns

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(e.g., that their name not be used or that their video data must be encrypted for storage and only accessed by certain individuals). Others may not offer their consent. These choices must be made individually, with no explanation needed. Prior to asking for consent, researchers must make these options clear so that individuals do not feel pressured or coerced. Confidentiality, even with the highest standards, has limitations. Encrypted data, for instance, can be breached, and de-identified videos could still be recognizable. Participants must understand the limits of confidentiality measures in order to be fully informed when making decisions. Practical security measures, however, can provide layers of protection.

Finally, we discuss *ethical resources*. *The Belmont Report*, for instance, reminds researchers of the need for oversight and the possibility of research harm (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research 1979). All ethical decisions should be grounded in a commitment to do no harm to those involved. Institutional review boards and ethics commissions provide helpful oversight and guidance. Researchers should therefore consult them with questions that arise during any stage of the process. Additionally, field-specific ethical principles (e.g., ethical principles of music pedagogy) should be developed, consulted, and revised over time. The DGfE Council (2016) noted that experts can weigh in with opinions and reviews, within or apart from ethical bodies such as university ethics commissions.

### 3.2.4 Didactic sequencing

For all stages of ethical decision making, we propose the following pedagogical sequence (see Fig. 2). Teacher-researchers must weigh each of the five categories sensitively and thoroughly as they move through the considerations outlined above using holistic thinking and critical response approaches with the class. They can utilize the same analytic skills they use for teaching to process through ethical practices and research. Preservice teachers can use this sequence to build reflective habits.
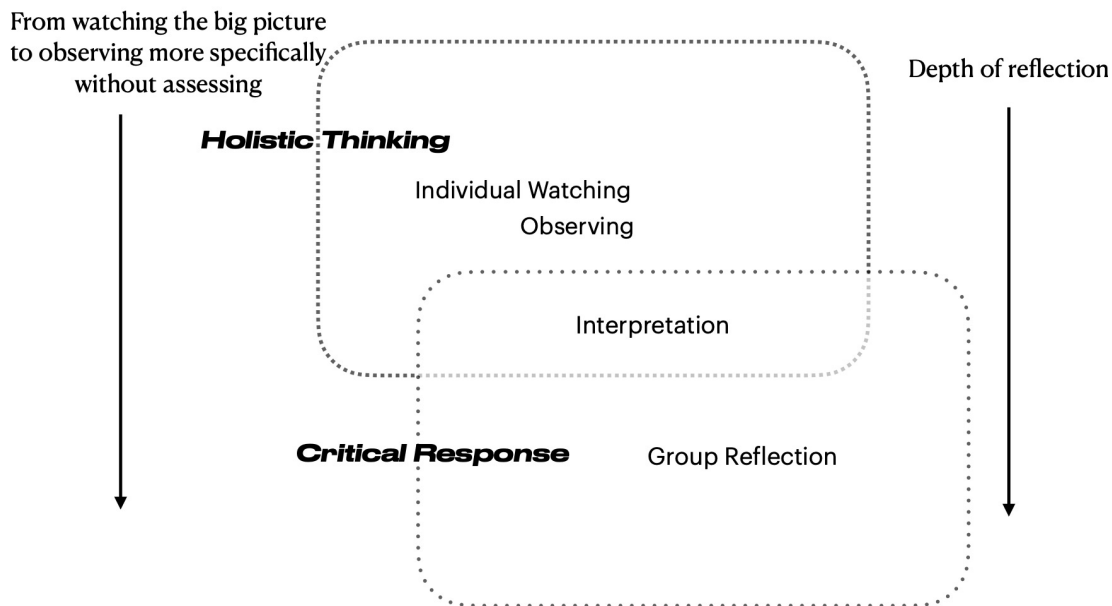
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**Fig. 2. Didactic sequence for ethical video use.**

   While the video students bring to class will be fixed, they will continue to record lessons, therefore reflect in planning new goals for their teaching behavior for subsequent recordings. Once a video is made, it will be determined through reflective practice to what extent it will be shown in the teaching environment. The sequence begins with students watching the video to determine the overall scope of the video's pedagogical use and its holistic value through statements of meanings. It is particularly important to be guided toward holistic thinking, as one may otherwise prematurely focus on opinion/judgement, or minutiae, such as poorly-worded instructions or a student's off-task behavior. In the context of instrumental and vocal lessons instructor and peer feedback should emphasize autonomous learning, giving learners the ability to evaluate their own work. Accordingly, we first concentrate in the overall meaning of the work, embracing a diversity of perspectives. The question stands, how did we experience this work? In research, ethical decisions demand the same: an initial viewing to ascertain the value and purpose of content (e.g., a video). The holistic thinking stage is primarily an individual act; it involves watching and thinking in the moment, that is, while teaching one's student, and considering oneself afterward in a reflective state while viewing (and reviewing) the recording.

   The middle phase, interpretation, exists between—and is a blend of—holistic thinking as an individual, and the critical response process of a community of practice. This is a social activity, requiring psychological safety as a participatory community of practice, and necessitates guidelines of mutual respect, openness to different ideas and voice for all participants. Interpretation begins with one's own thinking and gradually moves from the macro to micro. It includes the form or arc of the lesson,

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interactions, pacing and sequence of instruction between teacher and student, the conditions of the learning environment, clues about participants' feelings, and so on. These components are an important stage in an interpretation of video content.

Interpretation organically transitions into social dialogue, enabling preservice music teachers to engage in the critical response process. This creates a structure of safety for meaningful dialogue. We believe that the critical response process fosters preservice music teacher-researchers to think deeply, creatively, and subtly about their roles as teachers, researchers, and students, while weighing unclear ethical and teaching dilemmas that will become a cornerstone of their pedagogical practices.

## 4 Conclusion

In this paper we reflect a sustainable and responsible use of digital content in the context of instrumental and vocal pedagogy. Our aim is to raise awareness of ethical principles toward responsible use of videography in instrumental and vocal lessons and teacher education in alignment with RRI principles. These pedagogical recommendations should be used to build community, foster empathy and trust, and build perspective and growth among music teachers as reflective practitioners who can sensitively consider the ethics of their teaching related to digital content.

Music presents a challenge to digitally mediated spaces, particularly when addressing problems of sound feedback, delay, and poor audio quality. The use of digital content like video recorded instrumental lessons can alleviate some of these problems, as it can preserve the sound quality and timing, approximating the original live sounds. Referencing Hewitt's (2009, p. 4), three norms of pedagogical practices, performance practices, and transmission practices in higher music education, music is a domain well-situated within values of participatory culture and community of practice. Music should be social, interactive, and improvisatory as a historically human endeavor spanning all cultures. Music therefore must be in time and with quality audio in order to facilitate students' growing artistry. Among less experienced music students this issue becomes even more pressing. As Fors, Bäckström and Pink (2013) noted, learning is emplaced in an integrated relationship of mind, body and environment. Music too, encompasses these interactions of the intellectual, the physical, and the collective, particularly important when digitally mediated.

Videography in this project is focused primarily on student-created video recordings of their own teaching of instrumental or vocal synchronous and live lessons. It can also reference a wide array of other possibilities, including public content, instructor-created class content, digital supporting materials, and so on. Each type of digital content may require in-depth ethical considerations, perhaps expanding or broadening beyond the principles we have outlined here. As digital content continues to take on new forms

and roles in higher education, these considerations will become continually pressing not only for university students' learning experiences, but for the role modelling such considerations provide them when then enacting their teaching roles. As well, classes that are held virtually may necessitate different considerations for fostering a community of practice than those held hybrid or in-person.

Naturally, aspects of the aforementioned ethical considerations for video use are also relevant to other fields in higher education that make use of video recordings as a didactic resource. Most notably, this applies in general teacher education, as pedagogical considerations take center stage, but may be liberated from the concerns associated with top sound quality and artistic interactions.

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