ARTS-BASED METHODS

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Children’s digital media productions in early childhood

The mass availability of digital media in homes and educational sites across the globe has offered new possibilities for play, and for learning. Digital media appears in many of the spaces children inhabit, including formal learning spaces such as schools, kindergartens and day-care centres. Very young children learn basic skills such as reading, writing, music, drawing, numeracy and science concepts through digitally based educational toys, they participate in digital media play and learning sessions, and young children learn coding through robotics tasks. For children who have access, digital media can come to form a large part of their daily activity, especially when schooling embeds digital media use in teaching and learning activities.

This new vision of childhood is both exciting and terrifying, and full of possibility for researchers to assess the impacts and effects of children’s access and use of digital media in their everyday lives. The rapid change that digital media and technologies more broadly have brought to children’s lives in a very short time, mean there is uncertainty about the many impacts this exposure may have and how they will emerge in the long term. Research into digital media in early childhood recognises that ‘digital technologies have a role to play in developing children’s identity as effective learners in the classroom’ (Flewitt et al., 2015, p. 305), however more research is needed to understand the impact digital media use is having on young children across their lives and learning. Children’s digital media use is a new and growing area of research, and researchers are keen to examine its use by young children in different contexts. Researchers are also keen to use innovative and creative methods and procedures for undertaking their investigations to allow for more nuanced data types, and more nuanced findings and outputs.

This chapter examines the potential of arts-based methods for researching the uses of digital media by young children. The chapter will assert the difference between research that looks at children’s digital art, and research that uses arts-based methods to investigate a wide range of topics. Recent research into children’s digital media use is initially discussed to highlight some of the main issues and phenomena researchers focus on, and the methods that are commonly used. This is followed by one articulation of how a research project might extend on the usual methods and employ arts-based methods in digital media research, and how arts-based research can produce useful and meaningful data that can be used singly, or in combination with other forms of data.

I suggest that arts practices offer methodological opportunities for research into digital media in early childhood because they are able to accommodate complex and theoretically rich
research questions and projects. Arts practices in research are variously described, and include arts-focused research and arts-led research (Knowles & Cole, 2008). This chapter specifically focuses on how arts-based research offers rich methodological potentials for investigating digital media in early childhood. Arts-based methods can be highly effective in attending to research projects that are multidimensional, that might be investigating and wanting to observe and record multiple things such as social interactions, physical use, posture, conversation, media activity, digital production and more.

**Understanding the valorisations attached to young children’s digital media making, and how this impacts on arts-based research into digital media in early childhood**

In addition to researchers refining their understandings of their own arts-based data generating and data gathering practices, it is important for researchers to address normalising attitudes that surround the digital media that young children produce, and how such attitudes can have a limiting effect on project ideas. Being critically aware of the social and cultural valorisations attached to children’s art can offer more expansive possibilities to researchers of what can be counted as child-produced, arts-based data.

Cultural valorisations are hard to dilute. I’ve had heated discussions with my own undergraduate students about whether all children’s drawings are art, especially after I suggested that mostly young children’s drawings were not art, but visualisations of ideas and concepts. I suggested that the child’s intention to draw might often not be to create art, but to create an account of what happened at the weekend, their favourite sport, or it might be to figure out the workings of an aircraft, or what outer space might look like. My students were certainly shocked to hear their expert lecturer say such things! Clearly, ideas about what is children’s art are socially and culturally constructed and upheld, and these ensure that certain images are read through schema commonly thought to define the work as art.

There is not enough space in this chapter to discuss how valorisations around children’s art emerge, however as I have asserted elsewhere (Knight & Dooley, 2015), ideas about children’s art are closely tied to developmental theories and Western theories of aesthetics. Two things happen because of this association: children’s visual and performance productions are recognised, organised and classified due to particular schema, which means many productions by children that may actually be closer to an artistic intention are ignored or discarded, because they fall outside the schema. Two examples help to illustrate my point: a child’s drawing of a battle scene and a child’s collection of photographs. A child has made a drawing of a battle. It is created on paper using water-based markers and pencil. The scene is animated and contains figures in action firing weapons and various vehicles flying and exploding/combusting. Dotted lines trailing across the page suggest that ammunition is being fired. Drawings like these are familiar, and it is likely that many early childhood educators have seen children produce these types of drawings. Commonly this work might be described as art, but I suggest that the child’s intention is not to create art but to explore live action, noises, engineering, power, speed, popular films and stories through the specifics of a battle event. This drawing visually experiments with conveying speed, movement and sequence, and also explores ways to visualise non-solid objects such as bullet trajectories, flames and smoke, however, these are within the intentions of creating a battle scene. Such a drawing has a singular focus with all components fixed on exploring a specific task.

Example two is a collection of photographs a child has taken using a smartphone (Figures 22.1A–D). The photographs were taken in quick succession and attend to the event of being out to dinner.
Figures 22.1A–D  Photographs, taken with iPhone
Credit: Hannah Rayner
The photographs experiment with close-ups and the composition in the frame of objects on the table. The child has noticed details such as the effects of condensation on the glass, the light in and around the glass, the placement of cutlery on a napkin and plate and the numbers on the table sign. Spontaneous and emergent, each photograph attends to different observations and speculations. Different arrangements are noticed and captured and there is a focus on how distance affects the composition of the image and how light plays on surfaces. The photographs as a collection examine the notion of eating out. The child is not telling a story here though, they are standing back and looking at the occasion of eating out through photography. Different things are being thought about simultaneously, and these are build into the collection of images taken.

It is intention over end product that defines the work as art. Photographs and drawings are not automatically artworks, it is the intention and purpose that make them so. In focusing on only the finished product, the diverse reasons why children produce visual works can be missed. Hopefully the examples cement how important it is for researchers to understand children’s diverse intentions for making, and that to fixate on specific reasons for children’s productions generates a dualistic belief that all the visual materials created by children is art, and that conversely, children are not capable of making different types of art, including political or conceptual art. The photographs included here are an example of digital media art that is primarily conceptual and abstract in its intention.

Children’s digital media use: recent research

Research into children’s exposure to digital media emerged soon after the new millennia, at a time when digital technologies began appearing in learning sites such as classrooms and kindergartens (Brooker & Siraj-Blatchford, 2002; Marsh, 2005; Plowman & Stephen, 2005). As digital media has become more commonly available in schools and kindergartens, recent studies have moved beyond a fascination with the technology to focus on conceptual ideas about children’s uses of devices and their impact on childhoods (Dale & Latham, 2014; Gibbons, 2016; Lafton, 2015; Laidlaw & Wong, 2016).

Children’s media use through play is a key focus for contemporary research. Generally, researchers see that play can positively influence media use. Wohlwend (2017) observes how introducing toys and materials that reference popular media (such as commercial film characters, or toy franchise characters) can help children to gain cultural currency and social inclusion in social group dynamics. She reports on a previous study (Wohlwend, 2013) where children referenced popular media to create digital videos that allowed them to explore play narratives and create social connections with others, observing how the digital play initiates participatory literacies between children who might not socialise together otherwise. Similarly, Edwards (2016) and Eckhoff (2017) looked at the influence of culture on young children’s digital play and the ways technologies shift conceptions of children’s play. Eckhoff (2017) used a participatory design method to examine the use of digital media by young children as they encounter outdoor play spaces whilst attending school, and the photographic imagery young children create when undertaking free play in outdoor environments. In each study digital media is used ethnographically and as a resource in partnership with ‘traditional’ resources, to observe how young children negotiate and develop social skills.

The socio-material effects of digital devices extends on a focus on play, with theories and critiques providing a framework to examine interrelationalities between digital and physical materials, ideas and identities of young children. Laidlaw and Wong (2016) applied complexity thinking to push concepts around multiliteracy practices, and Dubé and McEwen (2017)
used communication theory to articulate a framework around kindergartener’s interactions with digital tablets. In each case, critical theories became part of the methodologic apparatus, helping to gather data on the encounters between children and digital devices.

Critical theory has been used to interrogate the socio-material impacts of digital media on early childhood teaching and pedagogy. Jordan (2016) considered the global shift towards the digital, asking ‘Does media define the experience of childhood?’ (p. 879). Jordan theorised that childhood is not a fixed notion but ‘reflect[s] the familial, economic, social, political’ (p. 879) aspects of its life and culture, and that these impact on how children encounter digital devices. Similarly, Lafton (2015) theorised that early childhood professional practices are shaped by social influences and these intertwine with the materiality of equipment and devices. Lafton applied a poststructural reading of practices of using digital devices to learn about events outside the classroom, and how the diverse characters featured on the screen ‘challenge notions of agency when non-humans are understood as actors’ (p. 142) in helping children to forge relationships and connections with world issues. For many researchers, theory acts methodologically and conceptually to help process the multiple, fast-paced changes occurring in early childhood, as digital media becomes a larger part of the learning landscape.

Research can foreground digital media, making it both the focus and the methodologic tool of the research. Green (2016) used wearable cameras with young children to gather data in different ways and to capture very close recordings of children’s lived experiences of nature. Green considered how using digital media to conduct participatory phenomenological research might ‘provide adult researchers with a deeper insight of children’s experiences of “being-in-the-world”’ (p. 281). For Green, giving children digital media to collect and direct data revealed how ‘children see, interpret, and interact with their environments’ (2016, p. 292).

As digital media becomes more prevalent in contemporary learning spaces, and as children and educators find new ways to use technologies in their daily activities, researchers are turning to diverse critical and methodologic practices to investigate and record the effects and impact of these interactions. Researchers’ willingness to methodologically innovate and experiment means that arts-based methods can make a valuable contribution to research into digital media in early childhood.

It is particularly important that research with young children and media (that can record and capture personal images and recordings) is ethical. Arts-based methods are particularly ethical because the arts are highly subjective, being an individual expression and personal interpretation of the world. Rather than seeing the individual nature of art as an inconsistency or a weakness, arts-based methods can effectively and sensitively attend to the issues of ethics, including the growing sensitivity about power dynamics between researcher and researched (Deppeler et al., 2008; Banks, 2007; Matapo & Roder, 2018), as well as giving children an independent voice in the research process. Some of the ethical issues and concerns about researching with digital media and young children, and issues of protection of the data that is produced, are now discussed briefly to emphasise the benefits of using arts-based methods in digital media projects with children.

**Arts-based research as an ethical practice**

After a period of ‘mesmerisation’ with digital technologies per se, researchers are attending to issues of ethics in relation to children’s exposure to digital technologies and media. In their systematic review of children’s uses of technology in learning, Hsin et al. (2014) concluded that technology exposure had generally a positive effect on learning, particularly on children from low socioeconomic status families, however more research is needed in terms of children’s
roles as creators of technology, rather than focusing on children as digital consumers. Dale and Latham (2014) also considered the ethical implications of young children having a large amount of exposure to digital technologies. The authors propose that recognition of the impact on children of using a networked device, is needed. Grimes and Fields (2015) likewise suggest that children's familiarity with media creation prior to the availability of digital technologies does not necessarily guarantee a smooth transition into their use of networked media creation tools.

There are both opportunities and challenges to ensure equitable research practices into children's uses of online DIY media. Introducing children to networked devices raises issues around cultural rights and children's privacy and authorship, so calls for platforms that ‘effectively and sustainably foster a rights-based, inclusive, child-centric approach’ (Grimes & Fields, 2015, p. 115) to digital participation provide great opportunities for experimental and responsive methods like arts-based research to be used. For example, researching as well as designing high quality research tools, such as ‘richly designed websites’ (Grimes & Fields, 2015, p. 120) can use arts-based research methods to ethically investigate children’s creative ideas and their expressions and responses to big questions, in ways that respect their cultural and personal rights. Arts-based research requires the child to have agency in the research process, and this creatively pushes the field of digital research in early childhood forward.

As digital research evolves, so should the nuanced understanding of children’s everyday use of digital and technological media include attention to the ethical, pedagogic and social impacts of young children’s digital exposure. Arts-based methodologies can accommodate the peculiarities of digital media technologies and their uses by children, and in the different contexts children encounter digital media, in responsive and ethical ways. This is because arts practices rely upon personal interpretations and productions, and participatory practices. Arts-based, participatory research methods are effective for researching with groups of children, parents, educators and digital devices and to attend to the changing contexts for research, and the changing nature of the digital phenomenon.

Digital media in early childhood education as an emerging research field, opens up opportunities for experimental methodologies to refine conceptual and theoretical thinking about digital media use by young children. Flick (2007) asserts that a good research question is equally about theory and methodology, because ‘methods and theories should be appropriate to what is studied’ (Flick, 2007, p. xi). A double attendance to methods and theories thinks sensitively about the complexities and details of cultures, children’s lives, individual identities and subjectivities and livelihoods (Knight, 2016). Expansive understandings and theorisations about the environments, materials and contexts for education facilitate creative and ethically minded projects that can genuinely expand knowledge about education in respectful and egalitarian ways.

The importance of rigour in arts-based research

As early childhood knowledge becomes more refined and attuned and entwined in philosophy and theory, researchers can hone in on very specific questions about situations that are only just becoming visible, such as the use of digital media by babies and the development of iPad apps aimed specifically to be used by pets such as cats, dogs, birds and reptiles (Bart, 2013; Peachman, 2014). As an example, the recent rise in speculative and posthuman readings of early childhood education (Andersen & Otterstad, 2014; Jones et al., 2014; Pacini-Ketchabaw & Kummen, 2016) ethically gaze beyond the child/educator binary and take notice of the agentic presence and impact of humans, animals, politics, environments, materials, cultures, powers and beliefs. New, complex theorisations of early childhood education and care present significant
conceptual and practical challenges to the field, so theoretically informed research projects can benefit from ‘responsive and responsible’ methodologies that enable results which are accessible and as closely connected and relevant to the research topic/question as possible.

Methodological innovation must demonstrate excellent responsivity and be highly effective in exploring the curiosities of the researcher, as well as translate theoretically difficult research to different audiences. Methodological complexity and elasticity accommodates multidimensionality and is utterly responsive to these shifting dimensions, while also effectively translating those into findings and outcomes. Learning to use new or experimental methodologies (which may include arts-based methods) can mean researchers take extra care in learning new processes to ensure quality and rigour while respecting participant involvement.

Applying methodological innovation in digital media research generates insightful ways of thinking through new theories about contexts (such as early childhood education) as well as speculating and experimenting with the process of researching. For example, the rise in infographics and data visualisation (Cruz et al., 2017; Verhoeven, 2016) has allowed for innovative ways for interpreting theories into images, tracking, ordering and reporting on data through schematics and graphics, and translating complex ideas via symbols, icons and animations to audiences.

Arts-based methods differ to other methods that rely upon set procedures and unwavering sequences that present particular types of data for specific purposes. Arts-based research works with intentions and expectations that are fluid and that move with the project, and produces findings that are responsive to difference, rather than seeking out regularity or aspects that can be grouped and coded (Eisner, 2008). Fluidity does not mean carelessness or a laissez-faire approach to research however; arts-based research must be highly rigorous, careful and skilful. As with all research methods, arts-based research can be badly applied or executed if there is a lack of understanding about processes and procedures and how theories and methods interrelate. Poorly theorised and poorly executed arts-based projects can also be accepted for publication because the journal and review team might not have the skills and understandings to rigorously critique it (Barone, 2008). Such papers then present a skewed idea of good arts-based research, and thus a downward cycle of quality can occur.

Finally, projects can confuse arts-based methods:

- the topic of investigation might not be related to, or focus on the arts, but arts practices form the data gathering method; or
- data is analysed through arts practices, and/or data results are translated into arts works.

With arts-focused research:

- the topic of investigation is about the arts, however other methods are used to gather data, analyse data and report on the data; or
- the project includes or promotes the arts in some way (such as a project that explores the different ways children learn to read, and comments on the use of picture books as one useful resource).

These confusions have a detrimental impact on the clarity and rigour of arts-based research. I now provide examples to help explain the different ways the arts appear in research into children’s use of digital media, and to identify rigorous, arts-based research. The examples show the differences between arts-focused and generally focused projects, and that these approaches should not be confused with arts-based methods.
Arts-focused and arts-based methods in digital media research

Although an excellent study that has relevance to digital media education research, Doyle & Dezuanni’s (2014) project is an example of a research investigation that is not arts-based but arts focused. Doyle & Dezuanni looked at the ways media arts teaching could enhance science learning in primary education. The authors found that digital media enhanced children’s participation and communication in specific ways, and this assisted in their science learning. Doyle & Dezuanni claim that ‘digital media production has the potential to make science more accessible’ (2014, p. 42). The authors used video production to explore key science concepts, because making videos ‘provided a multimodal means of communication’ (p. 51). Video production is seen as arts-focused learning because it involves storyboarding, understanding of sequential imagery, cinematography, and the coding of moving images for specific purposes (in this case a procedural video). Through media arts experiences the children learnt about how digital media exposed them to ‘participation in school science not provided by print literacy practices’ (p. 53). Importantly, Doyle & Dezuanni (2014) worked critically with the artistic and design nuances of filmmaking by foregrounding these aspects with the participants. Their project was deeply concerned with ‘the positive potential of linking media arts and science pedagogy’ (p. 53).

Additional examples of research that is not arts-based include Eckhoff’s (2015) study into informal play and Rowe and Miller’s (2016) research into bilingual eBooks. Each of these projects is generally focused and promotes arts in early childhood education, but do not employ arts-based methods. Eckhoff (2015) considered the ethics of working with young children and their media-based informal play productions. Eckhoff positioned the young children as collaborating artists, researchers and documenters, through a sociocultural theorisation that proposed children make worlds through their play. Eckhoff (2015) regarded the children as ‘competent individuals capable of engaging in effective participatory research’ (p. 1617) using a variety of media-based resources. The positioning of the children as artists is respectful and promotes the place of media arts in children’s learning, however what is foregrounded in this research are the subtle ways that young children devise their own play activities. Rowe and Miller (2016) conducted a two-year project into the eBooks that bilingual/bilingual young children produced. The authors focused on eBooks produced on iPads that integrated photos, voice recordings, print and drawings, to consider their effectiveness in connecting home-based and school-based learning, for families not typically able to access new generation digital technologies. A design-based research method was used which involved combing visual and audio recordings to create texts ‘through non-linguistic means of creating and sharing meaning’ (2016, p. 446). Rowe and Miller saw how these components had a fundamental role in helping to devise the eBooks, and they discussed how the children demonstrated high levels of excitement and interest in taking photographs for their eBooks. The project promoted the inclusion of visual materials on children’s learning of other languages; however, the design research method focused on the emergence of participant-curated eBooks, of which visual materials form a part.

I will now use two fictional project examples to help explain and elucidate on arts-based methodological practices. It is hoped the examples help to conceptualise how arts-based methods might take form in a research project into digital media in early childhood. The two examples help to assert how arts-based research may not be focused on the arts but uses arts practices in the generating, analysis and reporting of research data. This might include using performance arts, drawing and arts installations as data, analysing data through the production of play scripts.
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and exhibition works and disseminating on data finding through sculptural forms, dance, music compositions and conceptual art collaborations.

Arts-based research: two examples

Example one: a research project that investigates children’s engagement with non-arts curriculum subjects. The project is driven by a curiosity about the ways digital tablet-created arts can aid early childhood learning about different subject matter. There is a desire to use something methodologically different to guided interviews, questionnaires or video observations to record and generate the data; there is a desire to use arts-based methodologies not only to generate other sorts of data, but to apply a method that thinks about a research question, and thinks about research itself, differently.

The project involves the teacher delivering regular curriculum learning content to students. The children produce regular types of school work in response to that curriculum. The arts-based methods will enable the children and teacher to produce ‘other kinds’ of responses to that content also. The tablets are loaded with a specific cache of apps and features which include the camera function, voice memo function, a cloud-based presentation tool and an image editing app. The choice of apps is significant: the apps require participants to make artistic productions using their own ideas and plans. The apps can be used alone or in combination. How or whether this happens is up to each child. Likewise, each child is free to direct how they create responses with the apps. Importantly however, the art making is a foregrounded aspect of the project. The children are working through artistic production primarily, and the curriculum content secondarily. The children use the camera and/or voice memo app to process and respond to content learning through photography and/or sound recordings. These are loaded into the image editing tool and individual multimedia works are created. The teacher and children then collaborate and curate their multimedia works into the cloud-based presentation tool, to create a class collection/portfolio of individual responses. The research project regards the sound files, photographs, multimedia works and class collection as different clusters of research data. The example project foregrounds arts processes and arts thinking, enacted through media-based materials, to learn about non-arts curriculum content.

Example two: a research project that investigates children’s understandings of citizenship. The children are exploring notions of citizenship. The class is working with a multimedia artist who helps the children to think critically about the idea of citizenship through key concepts which include being a member of a community, belonging to a group, having identity and living somewhere new or strange. The artist brainstorms the concepts with the children and helps them to devise and create a series of multimedia projection works. The projection works are launched via a special event for the school, and the images are projected over the outside walls of the school at the end of each day. The project treats each of the projection works as the research data and part of the research outputs.

A key factor articulated in the two examples is that the production of artworks occurs but is not the topic focus of the research. Creating art does not automatically make a project about the arts. Projects that include arts productions as a major or minor aspect might be assumed to be about the arts (arts-focused), however these two examples are focused on curriculum engagement and understandings of citizenship respectively. The examples show how art-based methods initiate ways of working and types of information/participant responses that work to these two foci in ways that are different to undertaking questionnaires, guided interviews or ethnographic observations.
Art is made through motivations and intentions that inform physical and material procedures. Although the physical and material procedures might in themselves be mundane (such as sawing wood, using a camera, jumping, using a pencil), the motivations and intentions and the ways in which mundane procedures are utilised are what turn them into arts methods and arts works. Using arts as a research method will produce data from and of those unique processes and creative motivations, as they have been applied within an arts intention. In other words, even if those mundane procedures were to be used methodologically, they will not of themselves produce arts-based research data. Arts-based methods produce data that is not achievable by other investigative means. It is essential that researchers hone their understandings of the arts to expand their methodological repertoires so they might generate high quality data.

The intentions and intellectual drivers for making art are at the heart of arts-based research, however nuanced understanding of the diversity of practices and processes of different arts productions can be difficult to learn by researchers who are learning about arts-based methods. In the next section I will illustrate how diverse arts practices can occur. This is essential to understand that there is not ‘one model’ for identifying arts-based methods, because there is not ‘one way’ for making art – and, crucially it is essential to remind the reader about the difference between arts-focused research (the topic of investigation is about the arts, however other methods are used to gather data, analyse data and report on the data) and arts-based research (the topic of investigation might not be related to, or focus on the arts, but arts practices form the data gathering method, data is analysed through arts practices and/or data results are translated into arts works).

As I address issues when conducting research into digital media in early childhood, I will revisit the two examples to help illustrate problems and good practices around applying arts-based methods to such research projects. This is not to suggest that arts-based methods have a specific canon; the examples hopefully make clear how differently arts-based methods can attend to complex project ideas, and attempt to address the research question.

It is important to understand the difference between children creating visual records of their non-art learning (such as the engineering thinking of the battle scene drawing discussed at the beginning of the chapter) and their creation of art through exploration of artistic processes and concepts. This is the case even if the research focuses on topics not relating to children’s art/art education. If researchers do not acknowledge there is difference in children’s art, then the ability to plan good and useful arts-based research into children’s digital media use is adversely affected. There is a danger that children will be encouraged to produce images with little content or meaning, and that these will not provide researchers with rich information to respond to their research questions. Children create artistic works about all manner of topics and ideas, so good quality arts-based methods can produce high quality findings about them. Researchers must take the time to learn about the ways the arts work for children, to fully grasp how arts-based methods can work coherently in a project that involves children’s digital media productions.

Similarly, children’s digital media use can be misinterpreted. Just as children enjoy undirected or unfocused play with paints, musical instruments, clay and costumes, children also enjoy using digital media in an unfocused way. It is easy to think that children are just messing about with arts materials, a smartphone or tablet, but it is important to understand what is going on when children want to persistently use the drum, the play dough, the camera, the microphone or various apps. This persistent and deeply immersed use shows how children are learning artistic practices and gaining and refining their understandings of all the functions and possibilities of the material. Children demonstrate their researching and experimenting skills through this repeated and intense play.

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It takes a lot of practice to use digital apps to make images, recordings, movies, animations and more. Just as children’s hand drawn images can be misread for their meanings and intentions, or their instrumental play as noise, so children’s digital media productions can be misunderstood as ‘gaming’ or boredom busters, instead of seriously researched and carefully planned experimental digital/media/artworks.

Conventional valorisations about children’s art and digital media practices directly impact on the rigour of arts-based investigations into children’s digital media. Young children are capable of being sophisticated digital media users; however misconceptions about their capabilities can direct how researchers design projects. Similarly, misconceptions about what is accepted as early childhood digital arts and media, coupled with an ‘ambivalence towards the incorporation of new technologies’ (Flewitt et al., 2015, p. 290), can also affect the quality of the arts-based methods used.

How might this play out? In returning to the examples, project one investigates how teachers use digital tablets to initiate non-arts curriculum learning via the media works children produce. Misconceptions about children’s media works might mean that data would be gathered on the basis of appearance rather than being attuned to the intention and purpose of those works, and this is likely to have a negatively impacting effect on the validity of the project. Because example two involves a multimedia artist working with child participants to investigate their understandings of citizenship, it is less likely that the artworks produced are not regarded as artworks, however care must be taken to read the works properly to understand the relationship of the works to the research question.

**Logistics of arts-based research into children’s use of digital media**

The practicalities of planning and conducting arts-based research are not vastly different to the planning and implementation of other research projects. I am reluctant to present a step-by-step guide to arts-based research; though it is prudent to identify the key things researchers should attend to when doing this type of investigation. In conclusion, and to reiterate points raised throughout the chapter, the following logistics should be attended to:

- Understand whether the project is arts-based or art-focused. Adjust and refine the ideas for data production and analysis, if needed.
- Consider the expertise of the researcher/s. It is not necessary to be a practicing media artist, but a refined understanding of media arts is essential. Extensive reading and exposure to media arts is vital, prior to commencing the project.
- Consider how the arts will be produced, and who will facilitate that. The research team may wish to work with a digital media artist as a ‘methodological expert’ to ensure high quality data is generated.
- Ensure the design of field work is receptive and appropriate for arts-based research. This means giving time for good arts practices to be used, and for children to experience authentic digital media making.
- Pay attention to what data will be produced and how that will be analysed. Will it provide information that carefully attends to the research question? What tools of analysis can be used for that work, and does that analysis align with the conceptual frame being used for the project?
- Consider how the data might work as part of other data being gathered during the project. If the project is using a mixed methods approach, consider how the arts-based data contributes and aligns with other data.
Arts-based methods and research reporting

Finally, an advantage of arts-based research is the potential for high-impact dissemination of research projects and their findings. Not all data produced within an arts-based digital media research project will be appropriate for public dissemination. However, in the main, the highly visual nature of the data can help to support the research to generate impactful outcomes with large and diverse audiences (including the children and artists involved). Dissemination options for arts-based research projects include the traditional modes of conference papers, journal articles and books, and can also include:

- Exhibitions. Commercial galleries, university libraries, school spaces and community spaces all make excellent physical venues. Virtual exhibitions can also take place via digital arts spaces, including university webpages, galleries and other organisations.
- Collaborations. Depending on the arts-based data produced during the project, it is possible for the work to continue after the project by working with new collaborators who may be artists, children, audiences, institutions and other researchers. Subsequent work may not be counted as data, but be seen as art work in its own right.
- Living archives. The nature of digital media art allows it to continue to evolve after the end of the project. The work can shift and morph and continue to change long after the project has concluded. The work can continue to have currency and relevance long after the project ends.

References


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