

PRACTICE RESEARCH

James Bulley
&
Özden Şahin

Report 1

WHAT IS PRACTICE RESEARCH?

Report 2

**HOW CAN PRACTICE RESEARCH
BE SHARED?**

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FOREWORD · STEVEN HILL

Research needs to become increasingly embedded in society, both as a practice and through its outcomes. The need to address the challenges we face represents a call to action for research of all types, in all academic disciplines, and across the full range of benefits that research can bring.

All research involves some form of practice, but in recent decades the idea of practice as research has emerged in several disciplinary contexts. The endeavour is set apart by new ways of conceptualising the research process, often leading to an increased diversity in research outputs. In addition to textual works, more formats and artefacts are included as a matter of course. Research considered in this light is embodied in the world, with real and direct connections to society.

Practice research is a new way of thinking about and engaging in research and so needs new structures and systems to maximise its impact within and outside the academy. The infrastructure for the communication and codification of research emerged with textual outputs in mind. Different approaches are needed to handle the richness and diversity of practice research.

Responding to this need is essential not only for practice research but also for the potential enrichment of the whole research endeavour. Embracing a diversity of research outputs is something that all researchers should consider to maximise their work's reach and impact. Practice researchers are already used to working with diverse outputs, and there will surely be lessons for all research areas to learn.

These reports are a seminal contribution that draws together current thinking relating to practice research in all its diversity. They provide consistent language to talk about practice research across multiple disciplinary contexts and clarify the challenges that need to be addressed to ensure the full potential of practice research. Notably, the reports span and provide linkages between the theoretical and practical. This range is essential. If there are to be better tools for hosting and communicating practice research, they need to align with the ways practice researchers conceptualise their work.

For me, two central and linked challenges emerge: valuing practice research fully within the context of the research system as a whole and improving the codification and dissemination of practice research. Codification is vital because only when research insights are codified, can they contribute to the broader body of knowledge. And only through effectively communicating practice research can its value be appreciated by researchers outside of the practice research community.

Based on the reports' analysis, the authors provide thoughtful provocations about the future steps needed to enhance practice research. Running through these considerations for the future is the notion of bringing some consistency and standardisation to the complex and diverse world of practice research. The suggested steps seek to strike an appropriate balance between the undoubted benefits of standardisation and respect for the diversity and autonomy of practice researchers. I look forward to the debate and discussion that the reports should and will trigger not only among practice researchers but also within the research community as a whole.

Steven Hill

Director of Research at Research England

FOREWORD · PRAG-UK STEERING COMMITTEE

Since its establishment in 2017, PRAG-UK has worked to increase the visibility and accessibility of UK practice research, recognising the need to engage with researchers, subject associations and funding bodies. It set out to build an evidence base to support the development of a stronger, research-informed creative and cultural industries sector; to advise on rigorous, creative models for practice research and its impact; to stimulate discussion around sustainable frameworks for practice research; and to help develop and share best practice in the field. With the publication of these reports, we believe we are taking a significant step towards realising these aims, and we are delighted to present them to the research community.

We would like to express our sincere thanks to the authors James and Öz and supervisors Maria, Mark and Sarah for their rigour and commitment in bringing the project to fruition; and to Research England, Goldsmiths, University of London, The Royal Central School of Speech and Drama, University of London and University of the Arts London for their support.

Oriana Baddeley

Chair, PRAG-UK Steering Group, University of the Arts London

Nick Fells

Deputy Chair, PRAG-UK Steering Group, University of Glasgow

FOREWORD · PROJECT SUPERVISORS

How does practice research enrich our ways of knowing and understanding the world?
And how can it be shared?

These questions are at the core of these two reports, *What is practice research?* and *How can practice research be shared?* which have been commissioned by the Practice Research Advisory Group UK (PRAG-UK). From wide-ranging research across the field, the reports explore the innovative and effective ways in which practice researchers generate and share new ways of knowing.

The sheer range of different disciplinary practices, histories and cultures that impact on practice research have contributed to a vibrant and challenging discourse surrounding its underlying principles, terminologies, methods and techniques for dissemination. These reports assess some of the different perspectives and contexts within which practice research takes place in England in the present day. As becomes apparent, consensus is not always possible, but by accepting this and moving the debate forward, the reports investigate the challenges and opportunities that practice research affords, establishing a clear foundation on which the practice research community and its stakeholders can come together to explore, discuss and advance the field.

The commissioning of these reports emerged from the discussions, debates and lobbying supported and led by PRAG-UK to provide a way to articulate and advocate for the concerns of the practice research community. An award from Research England opened up the opportunity for two postdoctoral researchers to look at how we might move from a sense that ‘sharing practice research is just for REF’ to a clear and open stance where ‘practice research is for life’. In this view, outputs from practice research projects remain accessible in perpetuity to diverse audiences, are discoverable in the public domain, and practice research operates as a critical component of an open, contemporary and thriving research ecology.

James Bulley and Özden Şahin, appointed following an open competitive process, approached the matter in hand with rigour, openness and sensitivity. The interviews, questionnaires and surveying they undertook captured a diversity of researchers from different disciplines, a range of research support professionals, and policymakers from across England, as well as those who navigate industry roles that often place them at the interface of the university. The reports are perhaps the first in-depth analysis of the field of practice research in England, and whilst any such resource-bounded work will never be truly comprehensive, the work is notable in its endeavour to cover the full life cycle of practice research, from conception to audience. It has been our pleasure to supervise the creation of these reports, and we want to acknowledge the extent to which Öz and James sought to bring an open, positive and inclusive ethos to such a heterogeneous field with such a plethora of different perspectives.

The reports are published in the immediate aftermath of the 2021 REF submission as the sector awaits a new consultation on the future of REF. One of the key challenges is how practice research can emerge from what many see as the ‘REF graveyard,’ to become a key

component of an open research culture. These reports provide the groundwork from which advocacy, guidance and support for practice researchers can grow into the future, despite a challenging economic climate.

Practice research offers a way of inquiry through doing and making, and often takes place in communities and through collaboration. The collegiality and interdisciplinarity engendered by practice research offer huge potential for research practices in the future. Practice research offers new ways of knowing and investigating our world and can contribute more effectively and expansively to challenge-led research. We believe that if the field is properly supported and its outputs are openly shared, practice researchers will provide opportunities for generating ways of knowing that up to now have been inaccessible.

These reports clearly illustrate the vibrancy and health of the field of practice research, and the generosity and creativity of the sixty two researchers, policymakers and support professionals who contributed their time pays testament to that. It is from this grounding and out of this discourse that excellent practice research will continue to grow and we believe that the best is yet to come.

Maria Delgado

The Royal Central School of Speech and Drama, University of London

Mark d'Inverno

Goldsmiths, University of London

Sarah Whatley

Coventry University

Project Supervisors

PRACTICE RESEARCH

EXECUTIVE SUMMARY

James Bulley
&
Özden Şahin

EXECUTIVE SUMMARY

WHY DOES PRACTICE RESEARCH MATTER?

Practice research has a history stretching as far back as the earliest human experiments: practice is a method of discovering and sharing new findings about the world that surrounds us. In recent years, scholarly communication has undergone a series of changes that have led to a broadening of the landscape of academic research, due in part to the emergence of practice research in the academy. The formulation and dissemination of practice research affords an important opportunity for researchers in England across all research disciplines, offering a research field¹ that conveys ways of knowing from practice, operating within, across and beyond disciplines in manners that go far beyond traditional research types. In practice research, forms of intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing can be conveyed, and its sharing presents an opportunity for the modernising and revitalising of research communication, uncovering novel dissemination routes in the digital era.

In response to the conversations that have arisen across the world surrounding practice research, these reports seek to clarify the debates, discussions and promise of the practice research community in England.

These reports:

- provide insights and recommendations to practice researchers, and to the organisations and professionals that support practice research;
- demonstrate that practice research enriches not just higher education, but learning and knowledge acquisition in other contexts including creative industries, scientific settings, non-profit organisations and independent bodies.

Practice researchers are discovering new ways of generating and sharing research, embracing non-traditional types of publication. In a world whose day-to-day is rife with mixed-media and non-textual information, it is time for academic research to embrace non-textual media and formats, and the vast ever-developing array of novel communicative technologies that are used in our everyday lives.

We have written these reports with the aim of reaching a diverse range of audiences, from students to researchers inside and outside of academia, from research support professionals to senior university research managers, from independent and non-profit research organisations to those individuals and committees that weigh and decide policy and funding in future years.

1 In these reports we refer to 'practice research' as a research type or research field and 'practice' as a research method.

HOW DID THESE REPORTS COME ABOUT?

PRAG-UK, RESEARCH ENGLAND AND THE REF

In the summative formation presented in these reports, practice research first cohered as an academic field in the early 1990s, drawn together from decades of international discussions and debates in the twentieth century. In the years that followed, researchers across disciplines propelled the discussion surrounding practice research, recognising its ability to generate, communicate and share new ways of knowing. In the 1996 Research Assessment Exercise (RAE), conducted by the four higher education funding bodies across the United Kingdom, is found one of the first attempts to assess practice research in the UK.² This was born from the need to present the work of a raft of independent researchers that had become active within the academy following policy changes which brought conservatoires and art schools under the auspices of higher education. From the late 1990s the national understanding of practice research in relation to the criteria of research assessment and in the broader tenets of academia in England has developed apace.

In recognition of the need to constructively support and document these discussions, and to summarise and move the discourse forward, PRAG-UK³ and Research England⁴ have sought, in commissioning and funding these two reports, to engage directly with the practice research community, conveying both matters of concern, and potential ways forward. There is an urgent need to map pathways into the future that can usefully support this progressive and contemporary research field.

Adopting this agenda, these reports aim to:

- help practice researchers and research support professionals realise and share practice research more effectively;
- provide informed, productive and impactful guidance for composing and disseminating practice research.

Whilst undoubtedly a vital impetus for these reports has come from the assessment of practice research, in particular from the Research Excellence Framework (REF),⁵ it is notable and appropriate that the authors have been allowed the freedom to expand the concerns of the reports far beyond the REF, considering and reporting on the challenges and opportunities offered by practice research more generally. We hope that these reports will provide support for practice research not just within England, but across the United Kingdom and globally.

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- 2 Nicholas Cook, “Performing Research: Some Institutional Perspectives,” in *Artistic Practice as Research in Music: Theory, Criticism, Practice*, ed. Mine Dogantan-Dack (Farnham: Ashgate, 2016), 22.
 - 3 The Practice Research Advisory Group (PRAG-UK) is an independent body which has been established by members of the academic research community in the UK, to increase the visibility and accessibility of practice research. Further information about the group can be found on its website: <https://prag-uk.org>.
 - 4 Research England is a research council within UK Research and Innovation (UKRI). Research England’s remit is to “oversee UK Research and Innovation’s England-only functions in relation to university research and knowledge exchange.” See: Research England, accessed 19 December 2020, <https://re.ukri.org>.
 - 5 “The REF is the system for assessing the quality of research in UK higher education institutions.” See: REF, accessed 19 December 2020, <https://www.ref.ac.uk>.

WHAT METHODS DID WE USE?

The two reports published here, *What is practice research?* and *How can practice research be shared?* draw their substance from the generosity of sixty two contemporary practice researchers, theorists, research support professionals and policymakers who contributed their time and expertise through interviews, reviewing, surveys and questionnaires.

The first report *What is practice research?* explores the fundamental idea of practice research. We find one factor common to all the practice research we surveyed:

- Practice research is when practice is the significant method conveyed in a research output.

The second report *How can practice research be shared?* answers practical questions that then arise:

- How can practice researchers best formulate and disseminate the ways of knowing that they are discovering?
- How can research support professionals and institutions assist and guide this process?

During our research, we conducted a large number of face-to-face interviews, questionnaires and surveys across the research sector in England. In interviews, each respondent undertook in-depth and wide-ranging conversations with us, based on a set of core questions. Due to time and resource constraints, we recognise that the reports cannot represent the views of all those involved in practice research, or portray the important differences in perspectives that arise from one disciplinary area to another. We have sought to include equal proportions of researchers and research support professionals, as well as theorists and policymakers. Our catchment of interviewees grew over our research period, driven by a concern to engage with as diverse a representation of the community as possible.

The detailed primary source interview material we obtained from our interviewees threads throughout the reports, and is contextualised by literature, conveying the breadth of discourse in the array of books, articles, commentaries and reports published about practice research in recent years. We consider that face-to-face interviews were vital in conducting these reports. Whilst out research has been informed by questionnaires, surveys, panel discussions and conferences,⁶ there is a risk that those involved are almost exclusively on full-time institutional contracts, are not practice researchers themselves, or are not given adequate time to describe and discuss the complex and bespoke issues relating to their own research and situation. Our methods were reviewed by an institutional research ethics committee, with informed consent given by all of those involved.

As well as conducting interviews across the research sector in England, we provided questionnaires and surveys to research support professionals in universities, libraries and institutional repositories. The responses have given us deep insight into the support provision for practice research across the many and varied research-active institutions in England. These practical and technical responses were further augmented by reference to technical reports and international standards. These reports have been conducted and collated in a short eighteen-month time period (2019–2021), and whilst this means that they are necessarily limited in their scope, this condensed time period has allowed us to capture a snapshot of the landscape of practice research in England at this time.

⁶ See Report 1 *What is practice research?* Appendix 1: Selected conferences and symposia on practice research in England (2000–2020).

WHAT IS THE RELATIONSHIP BETWEEN THE TWO REPORTS?

The two reports presented here *What is practice research?* and *How can practice research be shared?* are by nature interrelated. However, each is aimed at particular audiences, and it is for this reason that they are separated.

In the first report, we map practice research as a whole, introducing its fundamental attributes, addressing concerns around terminology, and outlining the challenges that exist in undertaking practice research. The first report *What is practice research?* is primarily aimed at an audience of researchers (both institutional and otherwise), policymakers and funders. It summarises key debates and discussions, proffers points for consideration, and highlights the opportunities that practice research offers within, across and beyond disciplines.

In the second report, *How can practice research be shared?*, we detail some of the ways in which practice research can be formulated, reviewed, preserved and shared. The primary audience for this second report is researchers and research support professionals. In the report we discuss the sharing and management of practice research, demonstrating that through the development of coherent and well-communicated guidance there is an opportunity to clear up much of the confusion and complexity that has confronted researchers and research support professionals.

Throughout the reports we refer from one to the other, noting sections that have particular resonance and symbiosis, explaining that understanding how practice research will be shared is an intrinsic part of its undertaking. We highlight that research peer review, preservation and sharing systems can be further developed, employing interoperability standards that allow for practice research to be shared to its full potential.

WHAT DOES PRACTICE RESEARCH OFFER?

Practice research offers a new and much-needed model for research, one that promotes practice as a significant method of research and breaks down barriers that can hinder traditional types of research.⁷ Practice research challenges and critiques the mainstream research publication process, providing new opportunities to modernise it.

Practice research is inclusive to all disciplines (and beyond).⁸ Practice research exists in medicine, engineering, sports sciences and many other areas. Whilst contemporary discussions surrounding practice research have been mainly in the areas of social work and the arts and humanities, its transdisciplinary nature necessitates that collective discussion takes place across the board.

A number of issues have arisen within the field of practice research, and we seek to explore these within the reports. These include problems of terminology, structure, formulation and peer review, as well as challenges for dissemination, interoperability and discoverability, including formats, metadata schemas, persistent identifiers, item types, and preservation standards.

We have identified issues of equality across the practice research field, in the gender, ethnicity and background of its researchers. Whilst these are not the focus of these reports, being reflective of problems across the entire Higher Education sector in England, they warrant consideration and action moving forward, by researchers, funders, research support professionals and others in the field. The broader landscape outside of the boundaries of Higher Education is markedly more diverse and within the field of practice research, as with Higher Education in England as a whole, urgent work needs to be done to bridge this chasm.⁹

Practice research has much to offer Higher Education and the research landscape as a whole, both nationally and globally. When it is properly engaged both inside and outside of institutional research frameworks, it affords a vital opportunity for knowledge creation:

- It expands the scope and nature of research both inside and outside academia.
- It develops methods for capturing and sharing knowledge creation that may not be catered for by traditional research types.
- It provides a clear bridge between professional practice¹⁰ and research.
- It enriches and informs scholarship and teaching.
- It develops the technologies used to share and communicate research.
- It recognises the non-linear aspect of many research inquiries.
- It revitalises and refreshes systems for academic peer review.
- It propagates knowledge exchange within, across and beyond disciplinary boundaries.

7 See Report 1 *What is practice research?* section 1.1 *Exploring practice research*.

8 See Report 1 *What is practice research?* section 1.1.5 *Practice research: across and beyond disciplines*.

9 Advance HE releases annual reports on equality and diversity in higher education in the UK based on Higher Education Statistical Agency (HESA) data. For the 2019 edition, please see: “Equality in higher education: statistical report 2019,” AdvanceHE, 25 September 2019, <https://www.advance-he.ac.uk/knowledge-hub/equality-higher-education-statistical-report-2019>.

10 Throughout these reports we employ the term ‘professional practice’ to denote the use of specific skill sets and knowledge bases in areas of practice. ‘Professional practitioners’ may operate both inside and outside of the academy.

WHAT ARE THE CONSIDERATIONS FOR RESEARCHERS AND POLICYMAKERS?

Whilst academic practice researchers and research support professionals have driven the debate and development of practice research, they are of course not the only ones involved in its progression. Practice research has benefits for the entire research community, offering a research field across and beyond disciplines. This impacts throughout the academic ecosystem of England: for libraries, institutional repositories, independent publishers, university presses, learned societies, independent research organisations and others. These groups ought to be part of the conversation as guidance and policies are developed. Communication is key: for progress to be made, coherent and well-informed findings and policies need to be drawn up, published and shared. Discussion, debate and revision can then follow. For researchers and policymakers there is a widespread desire for support and guidance surrounding practice research, and we aim in these reports to aid the practice research community in deciding the best ways to move forward in the future.

Our key point for consideration, drawn from the range of work set out in our reports, is that an independent practice research advisory body¹¹ can advocate, undertake feasibility studies, provide training, and issue guidance on practice research. The roles of an independent practice research advisory body may include:

- a. to advocate for support and understanding of practice research across and beyond disciplinary frameworks, addressing policymakers, funders, and institutional senior managers.
- b. to explore the founding of an Open Library of Practice Research (OLPR). This open library could:
 - i. harvest and host peer-reviewed practice research;
 - ii. provide specific support for the novel formulations of practice research that will emerge in future;
 - iii. embody principles of Open Access.
- c. to investigate the need for, and feasibility of creating a new model for peer review of practice research publication. This would be overseen by the independent practice research advisory body and linked to the OLPR.
- d. to create regularly updated recommendations concerning the use of descriptive terminology within the field (for example recommended usage of the terms ‘practice research’ and ‘research narrative’).
- e. to host and initiate transdisciplinary forums and conferences that engage and consult with the practice research community in the widest way possible (including those researchers outside of institutions).
- f. to create and issue guidelines and training schemas on practice research for practitioners and researchers at every stage of their career, including postgraduates. Areas for guidelines might include; pathways from professional practice to practice research; methods, output structure and formatting; copyright and licensing; accessibility, ethics and inclusivity.

11 This could, for example, be an expansion of the existing Practice Research Advisory Group UK (PRAG-UK).

- g. to create and issue guidelines and training schemas for policymakers, institutional management, and research support professionals. Separate guidelines might include: resourcing practice research; accessibility, ethics and inclusivity for practice research; institutional structures for supporting practice research.
- h. to feed into consultations surrounding the development of criteria for institutional research assessments (such as REF), and for funder organisations, research councils and charities.
- i. to explore the most appropriate file formats for the generation, dissemination and preservation of practice research.
- j. to discuss the adoption of a 'project' item type across global research output aggregation systems.

WHAT ARE THE CONSIDERATIONS FOR FUNDERS?

Our reports detail the richness, diversity and importance of practice research. They illustrate how practice research encourages the generation of new knowledge, inspires novel interdisciplinary research contexts, and provides a critical link to creative industries, science contexts and wider society. We believe that practice research could have even wider significance and impact if targeted funding were made available. In these reports we detail a number of approaches that explore the current challenges for practice research and illustrate the key areas where practice research and its community may require more targeted investment and support:

- a. Resourcing for an independent practice research advisory body¹² to advocate, undertake feasibility studies, provide training, and issue guidance on practice research.
- b. Exploring the development of an Open Library of Practice Research (OLPR) to harvest and host peer-reviewed practice research in an openly accessible way (overseen by the independent practice research advisory body). This would include:
 - i. an investigation into the necessity for, and feasibility of creating a new model for peer review of practice research publication (overseen by the independent practice research advisory body).
- c. Further reports relating to practice research which may include:
 - i. equality and accessibility;
 - ii. practice research PhDs;
 - iii. ethics and integrity;
 - iv. Open Access.

¹² As we have previously mentioned, this could, for example, be an expansion of the existing Practice Research Advisory Group UK (PRAG-UK).

WHAT ARE THE INTERNATIONAL OPPORTUNITIES OF PRACTICE RESEARCH?

In these reports, we have limited our scope to the boundaries of England. This decision was undertaken at the outset to ensure that the remit of the two reports was achievable in the short eighteen-month timescale available (2019–2021). Practice research occurs in a global context, with collaboration widespread through national and international partnerships. Practice researchers can be highly mobile: talking, discussing and sharing their work across the world at conferences, festivals, galleries, concert halls and lecture theatres.

We note that the field of practice research has developed simultaneously across many countries in the world, inspired by the same recognition: this hitherto mostly unrecognised research field affords an opportunity to share ways of knowing within, across and beyond disciplines that previously could not cohere in historic formulations of research. In practice research not only can forms of intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing be shared, but its researchers can find opportunity to adopt and harness novel mixed-media technologies to share their work internationally. The reports included here offer an opportunity for practice researchers in England to instigate further collaboration with international partners. By distillation, clarification and conveyance of the debates in England we aim to inspire the adoption of practice research as a fundamental tenet of international research frameworks.

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In the collation of the two reports presented here we are indebted to the generosity and fastidiousness of the wide number of researchers, research support professionals and organisations who have supported this work. Our first thanks go to Research England for funding the reports, coming as they do at a vital time for practice research, when grounded, collective and supportive action needs to be taken to guide the waves of innovative practice research that is currently underway in England. We are incredibly grateful for the support and encouragement we have been given to pursue open and exploratory methods in how we have gone about the reports, allowing our interviewees and research findings to shape and shift the constituents of the reports at all points.

Any success for these reports is found in the final stages of their review, by those willing and passionate minds who found the time to comment on and discuss the findings we have shared. From these reviewers we have been able to draw upon decades of experience to fine tune the findings that we present, rendering them communicative and succinct. We were fortunate to have undertaken an initial review process by the steering group of PRAG-UK, who have dissected and discussed its findings and presentation, before then going into a further process of review by a panel of experts from further afield, drawing both upon our interviewees and from other experts across the research landscape.

The large number of people listed at the end of this executive summary pays testament to the numerous researchers, policymakers and research support professionals who have contributed so much of their time to these reports. These reports may be listed under our authorship, but the reality is that this has been a collaborative and emergent process, with our findings and points for consideration drawn directly from conversations with many generous individuals, all of whom have exhibited extraordinary passion and commitment to the field as a whole.

We owe a substantial debt of gratitude to the members of the Practice Research Advisory Group (PRAG-UK),¹³ who collectively have guided us across our research and write-up period, inviting us to events, meetings and providing introductions to a number of the interviewees. Thanks goes to Maria Delgado, Mark d’Inverno and Sarah Whatley who have provided particularly focused support, constructive critique and a huge amount of their time to help in this endeavour. We thank our reviewers for their insightful feedback and comments: Oriana Baddeley, Bruce Brown, Geoffrey Crossick, Jenny Evans, Nick Fells, Robert Hampson, Rachel Hann, Janis Jefferies, Simon McVeigh, Robin Nelson, and Rachel Persad. Further thanks go to: Tracy Banton, Andrew Gray, Vivienne Hurley, Jamie Inkles, Pen Jordan, Tom Morgan, and Jennie San.

James Bulley and Özden Şahin
April 2021
London

13 PRAG-UK is currently chaired by Professor Oriana Baddeley with deputy chair Professor Nick Fells. Its steering committee consists of eleven members drawn from a range of disciplines.

LIST OF INTERVIEWEES AND RESPONDENTS

Funmi Adewole

Funmi Adewole is Lecturer in Dance at De Montfort University. She has a background in media, education, arts development and performance. She started out as a media practitioner in Nigeria and moved into performance on relocating to England in 1994. For several years she toured with Physical/Visual theatre and African dance drama companies. She was a recipient of the One Dance UK 2019 Lifetime Achievement Award in Dance of the African Diaspora.

Sarah Barkla

Sarah Barkla is the Institutional Repository Librarian at Bodleian Libraries, University of Oxford.

Helen Bell

Helen Bell is the Academic Engagement Specialist at Edge Hill University. She is an experienced professionally qualified librarian with diverse experience in working in Higher Education libraries. She currently provides advice and guidance to academic researchers on Open Access as part of the Library's research support team.

Claudia Bernard

Claudia Bernard is a Professor of Social Work and Co-Head of the Department of Social, Therapeutic and Community Studies at Goldsmiths, University of London. She is a qualified social worker and has worked in local authority children and families social work. Her research interests lie in the areas of social work with children and families, gender-based violence, critical race theory, equalities and social justice and she has published widely on these topics.

Michael Biggs

Michael Biggs is the Emeritus Professor of Aesthetics, University of Hertfordshire and Adjunct Professor at the University of Canberra, Australia. He is the co-editor of *The Routledge Companion to Research in the Arts* (2010).

Jane Boggan

Jane Boggan is the Research Excellence Framework Manager at Goldsmiths, University of London. She was a Panel Adviser to Main Panel D (Arts and Humanities) for REF 2014, and is continuing in that role for REF 2021.

Henk Borgdorff

Henk Borgdorff is the Academic Director/Professor of Theory of Research in the Arts, Leiden University. He is the author of *The Conflict of the Faculties: Perspectives on Artistic Research and Academia*, a seminal book on practice research in the arts and academia, which came out of Leiden University Press in 2012.

Bruce Brown

Bruce Brown is a Visiting Professor of Design at Goldsmiths, University of London and at the Royal College of Art. He is Chair of the Research Assessment Exercise 2020 (Arts) in Hong Kong and was Chair of Main Panel D for Arts and Humanities in the UK REF 2014 and the Arts Main Panel for RAE 2008. He was the Pro-Vice-Chancellor for Research at the University of Brighton between 2006 and 2016.

Liam Bullingham

Liam Bullingham is the Research Support Librarian at Edge Hill University. He is an experienced professionally qualified librarian with diverse experience in working in Higher Education libraries. He provides advice and guidance to academic researchers on Open Access as the Library's research support lead.

Josie Caplehorne

Josie Caplehorne is the Scholarly Communication Coordinator at the University of Kent's Office for Scholarly Communication, which provides researcher support to achieve best practice in data management, public engagement and Open Access.

Maria Chatzichristodoulou

Maria Chatzichristodoulou is Director of Enterprise, Head of the Division of Creative Industries and Director of the Centre for Research in Digital Storymaking (CRDS) at London South Bank University. She is the Editor-in-Chief of the *International Journal of Performance Arts and Digital Media*.

Broderick Chow

Broderick Chow is a scholar, educator, and artist whose work focuses on the intersections of theatre, performance, and sport. His research on sport and physical culture practices including weightlifting, wrestling, and bodybuilding crosses numerous academic fields, such as performance studies, masculinity and gender studies, sport history, and qualitative research in sport, exercise, and coaching. In addition to this, his research interests also include Philippine commercial theatre and popular music, economies of theatre, and anti-racist and anti-colonial pedagogies.

Victoria Cooper

Victoria Cooper is the Founder of Cooper Digital Publishing. She was Senior Commissioning Editor for music and theatre books at Cambridge University Press between 1987 and 2015.

Tom Corby

Tom Corby is an artist and writer interested in issues around climate, data and systems and is co-founder and director of the 'Experiments in Art and Science' [EAS] research group with Neal White and Nicola Triscott. He is Professor of Interdisciplinary Art and Associate Dean of Research at Central St. Martins, University of the Arts London. He works collaboratively with Gavin Baily and with scientists and technologists, including the British Antarctic Survey, Oxford Internet Institute and the BBC, looking at climate change and geographies of conflict respectively.

David Cotterrell

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Jisc representatives – Helen Blanchett, Tamsin Burland, Neil Jacobs and John Kaye

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Carly Sharples is the Head of Library and Learning Support at Norwich University of the Arts. Carly is an advocate for sharing research and practice across all disciplines, and is particularly interested in empowering research administrators and repository managers to effectively capture practice-based research outputs.

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Ben Spatz is Senior Lecturer in Drama, Theatre and Performance at the University of Huddersfield. They are the author of *What a Body Can Do: Technique as Knowledge, Practice as Research* (Routledge, 2015), *Blue Sky Body: Thresholds for Embodied Research* (Routledge, 2020), and the editor of the videographic *Journal of Embodied Research* from Open Library of Humanities.

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REPORT 1

WHAT
is PRACTICE
RESEARCH?

James Bulley
&
Özden Şabin

TABLE OF CONTENTS

Outline of the report	1
1.1 Exploring practice research	4
1.1.1 What is practice research?	4
1.1.2 Practice and research	8
1.1.3 Ways of knowing in practice research	12
1.1.4 Practice research as a field	14
1.1.5 Practice research: across and beyond disciplines	16
1.2 The field of practice research	19
1.2.1 Describing practice research	19
1.2.2 Research narratives	27
1.2.3 Audiences for practice research	32
1.3 Practice research in the academy	35
1.3.1 Practice research in the academy	35
1.3.2 Practice research PhDs	38
1.3.3 Assessment of practice research	41
1.4 Examples of practice research	45
1.4.1 Providing examples of practice research	45
1.4.2 Examples of practice research	47
1.5 Issues and challenges	53
1.5.1 Who gets to be heard?	53
1.5.2 Professional practice and practice research	56
1.5.3 Institutional support for practice research	58
1.5.4 The ethics of accessible practice research	62
1.5.5 The practice research archive	65
1.6 Conclusions	67
1.7 Looking forward	68
References	70
List of abbreviations	77
Appendix 1: Selected conferences and symposia on practice research in England (2000-2020)	78
Appendix 2: Sample interview questions for researchers	80
Appendix 3: Sample interview questions for policymakers	81

OUTLINE OF THE REPORT

This report, *What is practice research?* aims to help build a shared understanding of practice research, detailing the key components of the field. The report is threaded with primary source material gathered from interviews, questionnaire responses and a detailed literature review exploring the books, articles, conference proceedings and commentaries published in this area in recent decades. We recognise that whilst the interview material we reference as a cornerstone of these reports contains the experiences of a diverse array of people and practices, the reports cannot represent the views and perspectives of all of those involved in practice research. The detailed and varied nature of the responses we encountered, including from those involved in administering, managing and funding practice research, pays testament to the breadth, depth and vitality of practice research as a field: diversity of perspective is to be welcomed and embraced.

What we have discovered through all of our investigations is the pressing need for clarity in how we talk about practice research: without it practice researchers will continue to be frustrated in applications for funding, in gaining institutional support, and in the ability to disseminate¹ research effectively. Practice research allows intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing to be shared in ways that other more traditional research forms often do not. Furthermore, nourishing and developing ways of sharing practice research creates a vital opportunity for modernising and revitalising research communication, mapping novel dissemination routes in a digital and networked era. Practice research affords a huge opportunity for academia, but its progress will be impeded unless it proceeds from a coherent, open and well-established grounding. Our concluding remarks take as a basis the fact that practice researchers operate across all disciplines and beyond disciplinary boundaries, inside and outside of academia.

Historically, there have been substantial debates around the terming of practice research. We have found a clear desire to draw a line under these discussions. Within this report we use two clear terms to aid us in moving forward:

practice research - an umbrella term that describes all manners of research where practice is the significant method of research conveyed in a research output. This includes numerous discipline-specific formulations of practice research, which have distinct and unique balances of practice, research narrative and complementary methods within their projects. The term is non-capitalised in general usage, in common with other research fields.

research narrative - in a practice research output, a research narrative may be conjoined with, or embodied in, practice. A research narrative articulates the research inquiry that emerges in practice.

This report aims to explore the question: *What is practice research?* In practice research, practice is the significant method conveyed in a research output, and the field of practice research is unique in its focus on sharing the often unrecognised ways of knowing that emerge in practice. Following this, we break down the compound term ‘practice research,’ dissecting its constituent elements of practice and research, providing an overview of the ways these two words diverge and converge within research cultures in England.² These matters are tackled with a broad, ‘top-level’ attitude,

1 In these reports we use the word ‘disseminate’ to describe sharing of research outputs via research systems.

2 Whilst the focus of these two reports is solely within England due to the scope of the project, we recognise that a very similar situation likely prevails across the United Kingdom.

drawing on the wealth of discussion surrounding their meaning, whilst avoiding overanalysis of these debates. In this way the unique potential of practice research, with its ability to convey intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing is brought to the fore. Recommendations are provided for relevant literature sources should readers wish to explore these areas in more depth.

In the second section of this report 1.2 *The field of practice research* we explore how practice research projects take place and the form that they might take. We first discuss the core notion of a research narrative, and how this component functions in practice research outputs. Historic debates surrounding the naming and describing of practice research are laid out, with critical consensus drawn from discussions that have previously slowed progress within the field. Through a review of the existing denominations in literature, and an exploration of the perspectives of the practice researchers and research professionals we have interviewed, we employ the descriptor ‘practice research’ – an open and broad framework that aims to be both inclusive and transparent. Practice research requires a coherent and comprehensive account as a research field: it is with this that we can improve the systemic and institutional support mechanisms needed for practice research to be more successfully undertaken, documented and disseminated. We then outline the different audiences for practice research, and the impact that these audiences have upon its formation, publication and strategic dissemination. We acknowledge the crucial issue that discipline-specific denominations of practice research may overlook the broader description of practice research as an umbrella term, one that extends across and beyond disciplines.

In the third section of this report 1.3 *Practice research in the academy* we analyse the impact that institutional academia has had upon practice research in England. Amongst the current climate of rolling academic assessment, sparse institutional funding, and a growing number of practice research PhD programmes, we uncover the seeds for many of the frictions that exist. As a relatively new research field, practice research is under close scrutiny by both funders and policymakers, compared and contrasted to other established research fields and subject to attempts at analysis by assessment criteria and metrics that have often been developed with other types of research in mind.

In the fourth section of this report 1.4 *Examples of practice research* we provide indicative noteworthy examples of practice research, exploring the relationship between practice and research narrative that exists in each one.

In the final section of this report 1.5 *Issues and challenges* we explore the issues and challenges that face practice researchers in their everyday work. Practice research has the potential to enrich and embolden research cultures, uncovering new ways of knowing and revitalising ways of sharing research, but it is important that we are clear on the challenges that exist, creating a space to discuss these issues in a coherent, democratic and progressive manner. Specific challenges that arose during our research are highlighted. Firstly, we note the overarching gender and race biases within the field, which became apparent as we undertook our interview process and literature review. Through a staggered interview process, and regular reviewing, we worked to speak to the most representative and diverse group of practice researchers possible. Further to this, we note the difficulty we had in talking to a truly representative sample of practice researchers in England: many within academia are employed on fractional research contracts in their institutions, where they combine their institutional research practice with distinct professional practices (often outside of the institution). This means that practice researchers are seldom heard from at conferences, symposia and in literature - most discussions of this kind are dominated by research support professionals, policymakers, practice research theorists, and those relatively few practice researchers in full time academic positions. The issue of institutional support for practice research is discussed in detail,

and it is ventured that the paucity of coherent institutional support for practice researchers can in part be attributed to both a lack of clarity as to what practice research is, and an absence of coherent guidance to detail its requirements. These descriptive problems exist across academia, from researchers to research support professionals, and perhaps most impactfully across senior management and policymakers. Adequate support for practice research will only be possible when clear, unified and cogent requests are made by its community.

Moving on from the need for cohesive representation, we then discuss issues of accessibility and ethics in practice research. In a research field where practice is the significant method conveyed in a research output, we find complex and innovative usage of media and bespoke publication formats to portray the functioning of practice. However, to ensure that practice research remains accessible for all audiences (including those with access needs) and that its formulation is ethically principled, much further work needs to be done. Finally, the challenges that face practice researchers in ensuring their work can survive in the long term are outlined: we find that practice researchers ought to actively participate in the ongoing formulation of shared guidance in this area if they wish their research to endure and be significant and impactful in the long term.

We conclude with a series of recommendations as to how the field can confront the issues and challenges it faces, including suggestions for further research projects and analyses. We offer a final statement that recognises the potency of practice research: practice research develops ways of knowing and is critical for the future of research.

1.1 EXPLORING PRACTICE RESEARCH

Key points from section

- Practice research is a type of research where practice is the significant method conveyed in a research output.
- In a practice research output, a research narrative articulates the research inquiry that has emerged in practice.
- Practice research enables researchers to share the ways of knowing that emerge in practice.
- In practice research, intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing can find their expression in a research output.
- Practice research is not solely an academic concern, although the discussions around it have up to now generally taken place in academia.
- Practice research exists across and beyond disciplines, and is conducive to being transdisciplinary.

1.1.1 WHAT IS PRACTICE RESEARCH?

1.1.1.1 Practice research is when practice is the significant method conveyed in a research output. All research involves practice, of one sort or another, be it the practice of writing, experimenting, or any other practical method of undertaking a research project. As academic and co-founder of the Open Library of Humanities (OLH) Martin Paul Eve observes: “if I want to demonstrate the boiling point of water and I get a test tube and put it over a Bunsen burner, I’ve done something. [...] There’s practice.”³ Where practice research differs from ‘traditional’ research fields is that the practice itself is foregrounded as the significant method of a research output. This approach accords with Robin Nelson’s *Practice as Research in the Arts* (2013), one of the most widely adopted and referenced theorisations of practice research. As Nelson states: “The practice, whatever it may be, is at the heart of the methodology of the project and is presented as substantial evidence of new insights.”⁴ Or, looked at another way, from philosopher Andrew Pickering’s perspective, practice research is: “a kind of research that thematises what I call the dance of agency.”⁵

1.1.1.2 There is widespread discussion across the research landscape as to what practice research is. Misunderstandings exist across the sector, from practice researchers to research support professionals, from policy makers to senior management and funders. Whilst we do not wish to

3 Martin Paul Eve, interview by the authors, 30 April 2019.

4 Robin Nelson, ed., *Practice as Research in the Arts: Principles, Protocols, Pedagogies, Resistances* (Basingstoke: Palgrave Macmillan, 2013), 26.

5 Andrew Pickering, interview by the authors, 25 April 2019. Also see: Andrew Pickering, *The Mangle of Practice: Time, Agency & Science* (Chicago, IL; London: The University of Chicago Press, 1995). Pickering enriches and extends the notion of “dance of agency” in Andrew Pickering, “New Ontologies,” in *The Mangle in Practice: Science, Society, and Becoming*, ed. Andrew Pickering and Keith Guzik (Durham, NC; London: Duke University Press, 2008), 1–14.

highlight individuals and institutions, we include here just a few anonymised selections from our interview respondents when asked the question ‘what is practice research?’

“I’m going to say it’s academic research undertaken by people who have a profession outside of academia.”⁶

“Practice research is some kind of quest for an active role for objects or intangible things that are not linguistically led. Something like that?”⁷

“Some people would use it for doing odd performances, or unusual interpretations of standard theatre works, or doing installations. Theatre installations, and then writing up about it. Other people were trying to do things that brought digital work in, but it’s always, to me, been blurry.”⁸

“...where what makes it research is not immediately evident in the form of the thing.”⁹

“I might say that practice research, for me, is something where a significant proportion of the output is in a form that is not text-based. It can be a physical artefact, but not necessarily a book or a journal article, or it can be something even more ephemeral than a physical artefact or, sort of, an event or a process, or whatever.”¹⁰

These responses highlight the urgent need for clear guidelines to be shared on practice research. Without these, policymakers, funders and research support professionals will continue to struggle to understand practice research, and the findings of this field will not be effectively supported or shared.

- 1.1.1.3 Understanding the relationship and distinction between practice and practice research is of crucial importance when discussing practice research. Excellent practice may not necessarily translate into excellent practice research, and vice versa.¹¹ For practice to be practice research the research has to be articulated. As artist and researcher David Cotterrell describes: “I think there is probably, within all practice, some form of enquiry, it’s not always something which is articulated to the point where it can claim space as practice research.”¹² For Cotterrell, practice research is “about actually trying to reveal something of the intention and the search, as much as describing the result.”¹³ Researcher and performance theorist Ben Spatz describes practice research as “understanding your practice in terms of its knowledge structures.”¹⁴ What these comments demonstrate is how close practice

6 Interview on practice research, 2019.

7 Interview on practice research, 2019.

8 Interview on practice research, 2019.

9 Interview on practice research, 2019.

10 Interview on practice research, 2019.

11 It is also important to note that, as Erik Knutsen said, “[d]oing good research is not about making successful works: it is about succeeding in generating new insights.” See: Erik Knutsen, “Method in Madness: A Case Study in Practice Research Methods,” in *Screen Production Research: Creative Practice as a Mode of Enquiry*, ed. Craig Batty and Susan Kerrigan (Cham: Springer Nature/Palgrave MacMillan, 2018), 141.

12 David Cotterrell, interview by the authors, 7 May 2019.

13 David Cotterrell, interview.

14 Ben Spatz, interview by the authors, 25 April 2019.

and practice research are. In discussing her research in social work, where practice research is particularly prevalent, academic Claudia Bernard makes the critical observation that practice research can also be “about improvement and improving practice, and in order to do that you have to be close to practice, to research.”¹⁵

- 1.1.1.4 Historically, research projects arising from practice have gained support, exposure and longevity by being formed within traditional frameworks of scientific research. Practice has been investigated using established methodologies such as qualitative and quantitative analysis, with outputs disseminated in traditional item types such as journal articles, book chapters and books. These mechanisms have often served to dilute — and in the worst cases completely obscure — the ways of knowing that have emerged *in* practice, instead focusing the research almost entirely on the product or result of the process. In scientific research, for example, the practice is often backgrounded in the research output, with a research narrative presented that summarises results and findings from the practice. As Steven Hill, Director of Research at Research England observes: “the practice is completely hidden, and often within the sciences that is problematic: there’s a well-established idea that you can’t reproduce methods from the narrative. You often have to go to the laboratory where the work was conducted, watch someone perform the techniques, and then miraculously you’re able to get these experiments to work yourself and that is almost certainly down to tacit knowledge that you’re acquiring in a conscious way.”¹⁶ Things are beginning to change however: for forensic scientist Danielle Moncrieffe, her practice research conveys “valuable and important information” about her method development, far beyond what is possible through the traditional research forms of her field.¹⁷
- 1.1.1.5 Practice research breaks down what David Cotterrell refers to as the traditional ‘hierarchy of methods.’ Practice as a research method is as applicable as any other.¹⁸ There is no one definitive way of knowing: we gain truly rounded knowledge of a subject from multiple perspectives. The field of practice research indeed demonstrates a remarkable aptitude for what theorist Henk Borgdorff describes as ‘methodological pluralism.’¹⁹ Many of our interviewees remarked upon the multiple methods present in their practice research outputs, a pluralism that drives agile knowledge acquisition, with practice combining with other methods to create the most appropriate pathways to novel insight. For researcher Maria Chatzichristodoulou practice as the significant method within a practice research output is central, it is “the body, the bearer of your contribution to knowledge.”²⁰
- 1.1.1.6 As David Cotterrell observes, the strength of practice research, and its vulnerabilities, lie in: “a self-reflexive approach to method, which is continuously subject to review.”²¹ During research projects, practice researchers continually reflect on the appropriateness of their methods: practice is constituted and reconstituted as an ongoing part of any inquiry, allowing for adaptive and

15 Claudia Bernard, interview by the authors, 5 February 2020. Practice research categorisations can be discipline-specific. In “Theorizing Practice Research in Social Work,” Lars Uggerhøj identifies two main approaches to practice research in Social Work. In the first approach research is “conducted in close collaboration with practice” and it “primarily focuses on the framework, goals and outcomes of the research process.” In the second approach, “research, evaluation and investigation [are] conducted by practitioners” and it “primarily focuses on the roles of the researchers.” See: Lars Uggerhøj, “Theorizing Practice Research in Social Work,” *Social Work and Social Sciences Review* 15, no. 1 (2012): 60.

16 Steven Hill, interview by the authors, 27 June 2019.

17 Danielle Moncrieffe, interview by the authors, 1 February 2020.

18 David Cotterrell, interview.

19 Henk Borgdorff, interview by the authors, 25 April 2019.

20 Maria Chatzichristodoulou, interview by the authors, 16 October 2019.

21 David Cotterrell, interview.

insightful pathways to knowing. Vulnerabilities are linked to this strength: how do we accurately describe the potential changing pluralism of methods in practice research? There is a need for further guidelines and support that recognises the fluid and non-linear method approaches of practice research projects and training in communicating pluralistic methods is vital for those embarking on practice research projects.

- 1.1.1.7 Whilst strict definitions of practice research are problematic, the mapping and delineation of the field is necessary for advocacy and openness. As Steven Hill states: “for the purposes of advocacy, I think there is more to be done in terms of practice research and making it clearer to the wider research community what it is and how it works.”²² In using the summative term ‘practice research’ across these reports we recognise this need for clarity. Without a summative term and description the field risks exemption from the main conversations and funding potentials of the wider research landscape. As David Cotterrell notes: “it’s a bit like the way people described public art as if it wasn’t really contemporary art, it was a niche area which was in a slightly different critical frame. It exempted it from being part of the main conversation.”²³ To truly achieve its potential, practice research will not only be a part, but become a driving force in the research landscape for future generations.
- 1.1.1.8 Across the field of practice research (and within the research landscape more broadly) there occasionally exists a confusion surrounding the two most important aspects of what practice research does in the world: i) what a practice research output²⁴ is; ii) what the impact of a practice research output can be. Artist and researcher Tom Corby provides a useful distinction: “Upstream you have the research and reflection and the articulation of what the artist, designer, practitioner thinks they’re contributing to their subject area. Downstream you have the impact of that work out in the wider world. It changes things. [...] It’s a long game that downstream stuff. The upstream stuff, the specific reflection on what I think my research is now is an immediate thing. It’s contingent, and it’s about what this work’s about now.”²⁵

22 Steven Hill, interview.

23 David Cotterrell, interview.

24 Within these two reports we use the term ‘output’ to convey the body of work that is communicated.

25 Tom Corby, interview by the authors, 6 March 2019.

1.1.2 PRACTICE AND RESEARCH

- 1.1.2.1 The last decade of the twentieth century saw a marked turn in the analysis of practice across the arts, humanities and social sciences, leading to an increased interest in practice as a field of concern both in the academy and outside of it. Whilst this report does not seek to document the vast array of analysis and reportage surrounding practice in areas including post-structuralism, postmodern capitalism, new-materialism and post-ecological activism, we include a footnote here of just some of the textual analyses that were mentioned and discussed in its collation, should the reader be inspired to probe further.²⁶ Practice is a vital and contemporary concern, and its use within the language of research is new, as former Pro-Vice-Chancellor for Research and Professor of Design Bruce Brown observes: “I don’t think the word ‘practice’ was ever used in common language until the first RAE in 1986.”²⁷ Any attempts to define or prescribe its attributes should be undertaken cautiously, driven by the certainty that the bounding and constituency of its meaning will continue to emerge over the coming decades. As Spatz describes when discussing the difficulties in establishing a common terminology for describing practice research: “I feel like it’s an undefined space because of the complexity and blurriness of what’s meant by practice.”²⁸
- 1.1.2.2 Almost any form of behaviour can be considered a ‘practice,’ as Spatz observes: “if you look at practice theory, everything is practice.”²⁹ This open ground is the approach toward practice research that we explore in these reports: it is exactly this openness that ushers in new and overlooked manners of discovery, inspiring questioning of established research methods, and progress in the communication strategies of research. The expansion of what knowledge is, and the ways in which it is communicated is vitally important, as Eve notes: “different forms of communication enable different types of understanding of what knowledge is, where it comes from and how it’s transmitted between times, cultures, peoples and so on.”³⁰
- 1.1.2.3 Practice is characterised by what theorist Donald Schön has called “unique events,”³¹ dealt with strategically by the practitioner. Practice is the work of real-time cultural extension and transformation.³² The ways of knowing that emerge in practice are shared in practice research through a research narrative.
- 1.1.2.4 In traditional accounts of practice, the operation of logic is often overlooked. But, as sociologist Pierre Bourdieu has ventured, strategies are not always predetermined, they occur ‘in-the-game,’

26 For textual analyses of practice, see: Nigel Thrift, *Non-Representational Theory: Space, Politics, Affect* (Oxon; New York, NY: Routledge, 2008); Tim Ingold and Jo Lee Vergunst, ed., *Ways of Walking: Ethnography and Practice on Foot* (Oxon; New York, NY: Routledge, 2016). For explorations into embodied and tacit knowledge, see Michael Polanyi, *The Tacit Dimension* (New York, NY: Doubleday and co., 1966); Michel de Certeau, *The Practice of Everyday Life* (Berkeley, CA: University of California Press, 2011); Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 2013); and Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010).

27 Bruce Brown, interview by the authors, 13 March 2019.

28 Ben Spatz, interview.

29 Ben Spatz, interview.

30 Martin Paul Eve, interview.

31 Donald Schön, *The Reflective Practitioner: How Professionals Think in Action* (Farnham: Ashgate, 1983), 16-17.

32 Andrew Pickering, *The Mangle of Practice: Time, Agency & Science* (Chicago, IL; London: The University of Chicago Press, 1995), 3.

they emerge and operate according to specific demands of action and movement in time.³³ This is what Pickering refers to as a “dialectic of resistance and accommodation:”³⁴ the practitioner chooses between multiple approaches to find what Schön has called their “own way of combining them.”³⁵ It is the real-time, ‘in-the-game’ nature of practice that provokes difficulty in formulating cross-sector guidance for practice research. In practice research, researchers outline what is happening when they ‘do’ practice and this may involve any number of unique and bespoke methods that can be conveyed by a research narrative.

- 1.1.2.5 According to the Organisation for Economic Co-operation and Development’s (OECD) Frascati Manual (2015), “research and experimental development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge.”³⁶ Delving into this ‘creative and systematic work’ we encounter the multiple lives of the word ‘research,’ a reflexive processual surveying, at once verb and noun,³⁷ inextricably bound to the notion of the paradigm; a typical pattern or model that might be considered a legitimate contribution to knowledge.³⁸ Indeed, in 1962 when physicist Thomas Kuhn defined a paradigm as “sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners to resolve,”³⁹ he challenged the conventions of positivist research and its core static body of knowledge: knowledge became knowing. Brown notes that in terms of formal research assessment, definitions of research have often been based on a scientific model whose foundation is the production of new knowledge. However, for Brown, the production of new knowledge is rarely the outcome of research: “it’s often about challenging existing knowledge, in order to establish its limitations, rather than creating new things.”⁴⁰
- 1.1.2.6 Research has always existed outside of the academy and its frameworks and assessments, in settings including Non Governmental Organisations (NGOs) and Independent Research Organisations (IROs). However as Borgdorff notes: “once you call it research, you, as it were, commit yourself or inscribe yourself in a discourse about research, which is an academic discourse.”⁴¹ The relationship of research within academia is complex and different for each researcher.⁴² For artist and researcher David Harradine, established definitions of research can be restrictive: “when we’re talking about practice research, the research part of that and how it’s usually talked about and understood, is a

33 See Bourdieu’s writing on the language of sport, and the immanence of practice caused by choice orientation within the demands of the field. Pierre Bourdieu, *The Logic of Practice* (Stanford, CA: Stanford University Press, 1992), 66.

34 Andrew Pickering, *The Mangle of Practice*, 23.

35 Donald Schön, *The Reflective Practitioner*, 17.

36 OECD, *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development* (Paris: OECD Publishing, 2015), 44. <https://doi.org/10.1787/24132764>.

37 According to Eric Partridge’s *Origins*, one of the possible roots for the word research is from Old French “cercher”, which has the Old French-Middle French compound “rechercher,” as a consequence of which ‘to research’ and the noun research have formed. It shares the root for words such as circa, circle, circulation and circus. “The firm base upholding all these words is the L *circus*, a circle.” See: Eric Partridge, *Origins: A Short Etymological Dictionary of Modern English* (Oxon; New York, NY: Routledge), 514.

38 For further discussion on the subject of paradigms, see Egon G. Guba, ed. *The Paradigm Dialog* (London: Sage Publications, 1990).

39 Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago, IL: University of Chicago Press, 1962), 10.

40 Bruce Brown, interview.

41 Henk Borgdorff, interview.

42 It is a point of consideration that practice research may afford an opportunity for exploring the expansion of the definitions of research that are used across the research landscape.

very specific understanding of what research is or what knowledge is. I know that artists know and that all sorts of people know that knowledge takes many forms, some of which easily align with one of the official institutional definitions of research and some of which don't."⁴³

- 1.1.2.7 In the late 1990s, when arts researchers were brought under the auspices of a combined sector of subject areas in academia in the United Kingdom, practice research was included in research assessment exercises. This provoked a number of practical challenges for both researchers and assessors in how practice research could be presented and led to an examination of how research was defined in UK HEIs. The “Conduct of the Exercise: RAE Manager’s Report” published after the Research Assessment Exercise 1996 highlighted a number of practical issues that assessors faced with practice research outputs. There was often a need to request further contextual information from researchers, including “evidence of peer esteem” and “a brief additional description of a cited work (including an account of its research content).”⁴⁴ What this highlighted was the need to rethink what was meant by ‘research’ in research assessments, and to consider new ways in which research projects might be presented. Ten years later, the Research Assessment Framework 2014 (REF 2014) guidelines offered a new definition of research, as “a process of investigation leading to new insights, effectively shared,” a definition that was also in use for REF 2021.⁴⁵ This is the definition of research we have chosen to apply throughout these reports: across our interviews with practice researchers, policymakers and research support professionals in England, it gained near unilateral support for its breadth, inclusiveness, and ability to be applied to research happening both inside and outside academia.
- 1.1.2.8 Across the twentieth century, higher education institutions (HEIs) in England had been guided by what Schön has called “a view of knowledge that fosters selective inattention to practical competence and professional artistry.”⁴⁶ The challenge for practice research, whether for researchers, policymakers or research support professionals, is to create clear and well-reasoned mechanisms that counter this inattention.
- 1.1.2.9 Historically, there has been a consideration that research is superior to practice within hierarchies of knowledge, in terms of funding, support mechanisms and literature. As Schön notes: “research is institutionally separate from practice, connected to it by carefully defined relationships of exchange. Researchers are supposed to provide the basic and applied science from which to derive techniques for diagnosing and solving the problems of practice. Practitioners are supposed to furnish researchers with problems for study and with tests of the utility of research results. The researcher’s role is distinct from, and usually considered superior to, the role of the practitioner.”⁴⁷ Across hundreds of years of Western philosophical thought, knowing has been dominated by technical rationality,⁴⁸ a positivist epistemology of practice where professional activity (instrumental problem solving) is made rigorous through scientific theory and technique.⁴⁹

43 David Harradine, interview by the authors, 28 March 2019.

44 “1996 Research Assessment Exercise. Conduct of the Exercise: RAE Manager’s Report,” May 1997, accessed 1 December 2019, https://www.rae.ac.uk/1996/c1_97.html.

45 “REF 2014 Assessment Framework and Guidance on Submissions,” Annex C, p.48, accessed 28 August 2019, <https://www.ref.ac.uk/2014/media/ref/content/pub/assessmentframeworkandguidanceonsubmissions/GOS%20including%20addendum.pdf>; “REF 2021 Guidance on Submissions,” Annex C, p.90, accessed 28 August 2019, https://www.ref.ac.uk/media/1092/ref-2019_01-guidance-on-submissions.pdf.

46 Donald Schön, *The Reflective Practitioner*, vii.

47 Donald Schön, *The Reflective Practitioner*, 26.

48 Donald Schön, *The Reflective Practitioner*, 31.

49 Donald Schön, *The Reflective Practitioner*, 21–22.

Technical rationality was institutionalised in the professional curriculum,⁵⁰ and is still the dominant model of knowing within the academy of today. Practice research challenges this: processes cannot easily be conveyed as descriptive knowledge, nor can they be confined to analytic frameworks of logic and mathematics. Practice research is where knowledge becomes knowing, actioned through practice: a “reflection-in-action,”⁵¹ that develops new ways of knowing. Put simply, knowing ‘what’ is important, knowing ‘how’ is crucial. Practice is an experiential mode of inquiry that when located in a research framework, as practice research, reveals insights and understandings that expand our capacities for knowing.

50 Donald Schön, *The Reflective Practitioner*, 27.

51 Donald Schön, *The Reflective Practitioner*, 50.

1.1.3 WAYS OF KNOWING IN PRACTICE RESEARCH

- 1.1.3.1 Practice research is unique in foregrounding intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing. Practice research often forwards a sensual approach to knowledge acquisition, what anthropologist Steven Feld refers to as a “knowing-in-action: a knowing-with and knowing-through,”⁵² recognising the fundamental role of sensory experience in generating insights and understanding. ‘Making sense’ is a central aspect of knowing: this is not only a sense making, but also a sensory exploration: practice is an active method of research that acknowledges each practitioner’s unique perspective. Corby draws attention to this: “knowledge takes different forms and it can be embodied and tactile and sensory. They’re not soft things, they’re really important things.”⁵³
- 1.1.3.2 Intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing are sometimes overlooked in traditional forms of research due to challenges of documenting and describing their activities. As the neuroscientist Antonio Damasio has noted, the body “contributes a *content* that is part and parcel of the workings of the normal mind.”⁵⁴ Philosopher Michel Polanyi distils this neatly: “*we can know more than we can tell.*”⁵⁵ Practice research can thematise what philosopher Henri Bergson has called ‘intuition’⁵⁶—a sense-based activity that takes place amongst individual subjectivities, mental phenomena and intuitive thinking. Intuition makes use of what Polanyi calls ‘tacit knowledge’⁵⁷ and is an intrinsic part of practice. For artist and researcher Jane Grant this is crucial: “I think that there’s a knowledge in the body that allows us an intuition that highlights the excitement of knowing, and I think that we need to take notice of that.”⁵⁸ Practice research conveys not only explicit and exact knowledge, but also embodied and tacit ways of knowing, entering them into discourse.
- 1.1.3.3 Practice researchers often involve themselves in complex, changing, messy problems and situations, what Schön has referred to as “the swampy lowlands.”⁵⁹ They report first-hand of experience, intuition, iteration and trial and error as key methods. Other research forms often prefer a defined, cleaner ground, a narrower area of technical rigour that allows for definitive specialisation, experimental replication, and the avoidance of not knowing what they are doing. Practice research accepts curiosity, complexity and emergence, welcoming the opportunity for the ways of knowing that arise.
- 1.1.3.4 The ways of knowing generated in practice can be communicated simultaneously with the practice taking place. In these instances a research narrative can convey this as part of the practice. A number of examples of this are included in 1.4 *Examples of practice research* within this report. Further discussion as to the challenges of long-term presentation of these types of practice research

52 Steven Feld, “Acoustemology,” in *Keywords in Sound*, ed. David Novak and Matt Sakakeeny (Durham, NC: Duke University Press, 2015), 12.

53 Tom Corby, interview.

54 Antonio R. Damasio, *Descartes’ Error: Emotion, Reason and the Human Brain* (New York, NY: Avon Books, 1994), 226. (Emphasis in the original).

55 Michael Polanyi, *The Tacit Dimension* (New York, NY: Doubleday and co., 1966), 4. (Emphasis in the original).

56 See: Henri Bergson, *Creative Evolution* (London: Macmillan and co, 1911, originally published in French 1907) and Henri Bergson, Nancy Margaret Paul and M E Dowson, *Matter and Memory* (New York, NY: Humanities Press, 1911).

57 See Polanyi, *The Tacit Dimension*.

58 Jane Grant, interview by the authors, 13 June 2019.

59 Donald Schön, *The Reflective Practitioner*, 43.

outputs can be found in our second report *How can practice research be shared?* (see section 2.5).

- 1.1.3.5 There are examples of ‘situated’ practice research that emerges from the activities of communities. Following theorist Donna Haraway, we can understand that these ‘situated knowledges’ “are about communities, not about isolated individuals.”⁶⁰ Examples of this include participatory theatre, music improvisation, situated learning in education, and communities of practice (CoPs) in healthcare. In situated practice research the research emerges, and is shared in real-time: it becomes clear as the practice occurs what the knowing is, and that knowing is shared instantaneously amongst those involved. For Bernard, situated practice research in social work has demonstrated immediate and tangible positive changes to policy and practice that are often faster and more effective than in traditional research fields: “it’s starting from the ground, and it’s close to practice, and it’s the people who are involved in making policies about the practice and in delivering the practice.”⁶¹ Situated practice research does not preclude a further sharing of these new ways of knowing in an accessible way.
- 1.1.3.6 As with most forms of research operating within social interstices, practice researchers commonly employ collaboration to enhance ways of knowing. Recognising and accounting for collaboration is an ethical cornerstone of how practice research outputs should be formed. Practice research can gain much by embracing the collaborative techniques and methods that have emerged in other research fields over their long histories.

60 Donna Haraway, “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective,” *Feminist Studies* 14, no. 3 (1988): 590.

61 Claudia Bernard, interview.

1.1.4 PRACTICE RESEARCH AS A FIELD

- 1.1.4.1 These reports aim to clear up what Brown has referred to as the ‘muddled thinking’⁶² that surrounds the field of practice research. Whilst practice research is “only 30 years old in terms of public funding, whereas older universities are 600 years old,”⁶³ the discrepancy in funding and support that practice researchers receive needs to be urgently redressed to ensure parity of funding within the research landscape. For Moncrieffe, working in the field of forensic science, there is a clear and pressing need for improving funding for practice research across all disciplines: “we do now have quite a few scientists, who speak up about the fact that we need practice research and that funding bodies need to be funding it.”⁶⁴
- 1.1.4.2 Historically, one of the most significant projects for the development of practice research as a field was PARIP (Practice as Research in Performance), a five-year AHRB-funded project directed by Professor Baz Kershaw and the Department of Drama: Theatre, Film, Television at the University of Bristol between 2001 and 2006.⁶⁵ The PARIP project resulted in working papers, seminar series, working groups, project collaborations, research publications, a database of practice as research in all UK HEIs, case studies, and guides for practice researchers. PARIP was instrumental in arguing for the legitimacy of practice as a method of research, as Kershaw describes: “the task was, in each of our respective universities, to work out how best to deal with the scepticism that we met, quite strong scepticism in some cases.”⁶⁶
- 1.1.4.3 Whilst practice research exists primarily in academic contexts, it is not solely an academic concern. Curator and researcher Jane Pavitt describes a rich culture of practice research in museums, undertaken and disseminated in programmes, residencies and exhibitions, with much of it finding output not only in articles and books, but also in complex cross-media creations, spatial exhibitions and educational experiences.⁶⁷ Hill emphasises this: “there are practitioners in all sorts of areas who are carrying out research, they may not call it that, but they use practice as one of their methodologies in research. So, clearly, it’s not an exclusive academic concern, non-academics are doing it.”⁶⁸
- 1.1.4.4 There is a risk in portraying practice research as purely the province of academia. Harradine emphasises the pitfalls: “I worry that in somehow amplifying the conversation about practice research in the academy, oxygen (aka funding) is taken away from research practices that are already happening outside it.”⁶⁹ It is of practical benefit to recognise the existence of practice research both inside and outside of the academy, as academic and former Vice-Chancellor of the University of London Geoffrey Crossick observes: it opens up funding schemes and frees the practice researchers from the kinds of narrower definitions that otherwise come from institutional requirements and national research assessments.⁷⁰

62 Bruce Brown, interview.

63 Bruce Brown, interview.

64 Danielle Moncrieffe, interview.

65 Practice as Research in Performance: 2001–2006 project website, accessed 23 November 2020, <http://www.bris.ac.uk/parip>.

66 Baz Kershaw, interview by the authors, 29 March 2019.

67 Jane Pavitt, interview by the authors, 26 April 2019.

68 Steven Hill, interview.

69 David Harradine, interview.

70 Geoffrey Crossick, interview by the authors, 30 May 2019.

- 1.1.4.5 In some instances the formulation of practice into a practice research output arises as a result of a pragmatic need to attain further funding and this impetus for support can have important benefits. In museum exhibitions, as Pavitt observes, academic partnerships and collaborations are highly valuable for all concerned: often these partnerships result in the long-term sharing and communicating of both the process of exhibition-making and provide further contextual information about the exhibition to wider global audiences.⁷¹ Pavitt has observed an increase in collaborative practice research projects taking place in the sector: “the nature of exhibition-making changed, or the understanding of exhibition-making changed to see it as a research process. [...] That was key to funding and the way the projects were developing, through collaborations with academic institutions.”⁷²
- 1.1.4.6 In the English academy, one of the most common problems we heard arising in the field of practice research was the relationship between professional practice and practice research. Whilst it is not within the scope of these reports to examine in detail the important challenges surrounding how professional practice is resourced and supported in HEIs in England, we do explore the ways in which practice research emerges from professional practice, and the institutional support issues that arise, further on in this report in 1.5 *Issues and challenges*.
- 1.1.4.7 There are crucial structural issues within the field of practice research which have to be discussed and addressed if its researchers are to obtain support and recognition. There is a need for properly resourcing an independent practice research advisory body for practice researchers to turn to when they have questions, or for research support professionals, policy makers and funders to consult with. Furthermore, practice research can be better represented in terms of advocacy for funding and support from the government in England. Practice researchers remain under-resourced and underrepresented across the sector. A point for consideration arising from this report is that a properly resourced independent practice research advisory body can represent the community, advocating and advising both institutions and policymakers, as well as issuing guidance and providing support to researchers working in the field.

71 At the time of writing, there are a number of ‘Head of Research’ positions at museums in England, including Tyne & Wear Archives, the V&A, the Tate Galleries, and the Imperial War Museums.

72 Jane Pavitt, interview.

1.1.5 PRACTICE RESEARCH: ACROSS AND BEYOND DISCIPLINES

- 1.1.5.1 Practice research exists across and beyond disciplines, inside and outside of academia, and as Harradine has noted, this can involve academic and non-academic communities.⁷³ Practice research is what Nelson calls “an umbrella term, it’s not exclusive in any way.”⁷⁴ Corby observes: “I think in the medical sciences there’s a lot of practice-based research, and in law there’s a lot of practice-based research. [...] In geography there’s practice-based research.”⁷⁵ For Pavitt in her role as Head of Research Impact at Kingston University, there is an urgent need to broaden the practice research discourse to all disciplines: “we have a huge Art School, and we have a huge Allied Health facility, and the question is about how I account for my professional practice alongside my research, or the research that comes out of my professional practice? Those questions are coming from the designers and the nurses and physiotherapists.”⁷⁶ As Rachel Persad, Policy Manager (Research & Innovation) at GuildHE, puts it “the challenge is trying to have a general conversation about practice research across those disciplines [that employ it].”⁷⁷
- 1.1.5.2 In exploring practice research across and beyond disciplines in England, we have drawn upon a wide range of conversations, research assessment criteria and research theories. We note that practice research often displays strong transdisciplinary characteristics, involving frequently collaborative and community-based projects. It is useful at this juncture to summarise some of the key terms for research types:

Multidisciplinary Research

Multidisciplinary research is where disciplines work separately to examine a research question. Findings are then juxtaposed, to engender new ways of knowing:

The OECD typology classified MD [multidisciplinary] as “[j]uxtaposition of various disciplines” (Apostel 1972, p. 25).⁷⁸ Juxtaposition fosters wider scope of knowledge, information, and methods. Yet, disciplines remain separate, retain their original identity, and are not questioned. This tendency is widespread in conferences and publications that present serial views of a shared topic or problem. Likewise, many purportedly “interdisciplinary” curricula and research projects combine separate disciplinary approaches without proactively integrating them around a designed theme, question, or problem.⁷⁹

73 David Harradine, interview.

74 Robin Nelson, interview by the authors, 25 April 2019.

75 Tom Corby, interview.

76 Jane Pavitt, interview.

77 Rachel Persad, interview by the authors, 25 November 2020.

78 Léo Apostel, Guy Berger, Asa Briggs, Guy Michaud, ed. *Interdisciplinarity: Problems of Teaching and Research in Universities* (Paris: Organization for Economic Cooperation and Development, 1972), 25 quoted in Julie Thompson Klein, “Typologies of Interdisciplinarity: The Boundary Work of Definition,” in *The Oxford Handbook of Interdisciplinarity*, second edition, Oxford Handbooks, ed. Robert Frodeman, Julie Thompson Klein, and Roberto C. S. Pacheco (Oxford: Oxford University Press, 2017), 23. In OECD’s *Interdisciplinarity: Problems of Teaching and Research in Universities* (1972) the terms “discipline,” “multidisciplinary,” “pluridisciplinary,” “interdisciplinary” and “transdisciplinary” were defined, which, according to Klein was the first appearance of a major set of terminology for research categories.

79 Julie Thompson Klein, “Typologies of Interdisciplinarity,” 23.

Interdisciplinary Research

Interdisciplinary research features interactions between researchers and methods from different disciplines. As the *Oxford Handbook of Interdisciplinarity* has it:

Integrated designs [of interdisciplinarity] prioritize focusing, blending, and linking. [...] Scope varies though, ranging from narrow to wide or broad ID [interdisciplinarity] depending on the number of disciplines involved and the compatibility [sic] of their epistemological paradigms and methodologies.⁸⁰

The 'REF 2021: Overview of arrangements for submission and assessment of interdisciplinary research' document states:

For the purposes of the REF, interdisciplinary research is understood to achieve outcomes (including new approaches) that could not be achieved within the framework of a single discipline. Interdisciplinary research features significant interaction between two or more disciplines and/or moves beyond established disciplinary foundations in applying or integrating research approaches from other disciplines.⁸¹

Transdisciplinary Research

Transdisciplinarity is an extension of interdisciplinarity that transforms ways of knowing across and beyond disciplinary frameworks. For J. Klein, it is “[t]rans-sector, problem-oriented research involving a wider range of stakeholders in society.”⁸² *The Oxford Handbook of Interdisciplinarity* states that transdisciplinarity “strives to grasp the relevant complexity of a problem, taking into account the diversity of both everyday and academic perceptions of problems, linking abstract and case-specific knowledge, and developing descriptive, normative, and transformative knowledge for the common interest.”⁸³

- 1.1.5.3 There are practical challenges in considering the transdisciplinary affordances of practice research in the academy in England. Many systems, facilities and resource models are based on a disciplinary model. To truly embrace practice research across and beyond disciplines, there will need to be substantial changes in this aspect, a move away from the necessity for specific disciplinary allegiance for researchers when accessing facilities, and a support provision for others involved with research projects. This move will be of substantial benefit across all research fields, allowing support for other types of research that exhibit transdisciplinary and interdisciplinary characteristics. The problem of disciplinary-linked research support, both in terms of resource and administrative structure is made clear by composer and researcher Lauren Redhead when she describes supervising a PhD practice researcher who has no disciplinary affiliation: “the HESA data that is connected to PhD students can’t deal with that. [...] If he comes here he’ll also have a PhD in Music because, in a way, students are affiliated through their supervisor to a disciplinary area.”⁸⁴

80 Julie Thompson Klein, “Typologies of Interdisciplinarity,” 24.

81 “REF 2021: Overview of arrangements for submission and assessment of interdisciplinary research,” REF 2021 website, March 2019, <https://www.ref.ac.uk/media/1114/idr-overview-document.pdf>, p.9.

82 Julie T. Klein, “Evaluation of interdisciplinary and transdisciplinary research: A literature review,” *American Journal of Preventive Medicine* 35, No. 2S (2008): S117 quoted in “REF 2021 Interdisciplinary Research Advisory Panel: Review of the Criteria-setting Phase,” p. 28, accessed 10 August 2019, <https://www.ref.ac.uk/media/1112/idap-criteria-phase-review-report.pdf>.

83 Christian Pohl, Bernhard Truffer, and Gertrude Hirsch-Hadorn, “Addressing Wicked Problems through Transdisciplinary Research,” in *The Oxford Handbook of Interdisciplinarity*, second edition, Oxford Handbooks, ed. Robert Frodeman, Julie Thompson Klein, and Roberto C. S. Pacheco (Oxford: Oxford University Press, 2017), 322. <https://doi.org/10.1093/oxfordhb/9780198733522.013.26>.

84 Lauren Redhead, interview by the authors, 2 April 2019.

- 1.1.5.4 According to the Nurse Review of Research Councils (2015), one of the characteristics and aspirations for great leadership in research should be the delivery of research funding for a wide array of disciplines as well as interdisciplinary and multidisciplinary research collaborations.⁸⁵
- 1.1.5.5 In England, as evidenced in our interviews, practice research is a field that has spread organically across disciplines, and outside of them. Internationally however, this is not always the case. As Torsten Reimer, Head of Research Services at the British Library, observes: “in the German academic system, there is a clearer distinction between what kind of subjects you would teach at a university, and would therefore perform research, and what kind of subjects you might have at academies. [...] Probably some of my former German colleagues would say, ‘Yes, sure, but how is that related to research?’”⁸⁶ Reimer’s comment highlights the hierarchy of disciplines that exists internationally within academic research.
- 1.1.5.6 Describing practice research as often exhibiting transdisciplinary characteristics does not mean that disciplinary boundaries are not useful. For Spatz, disciplinary structures provide opportunity and resource for research projects: “I do think collectively (disciplinary structures) resonate with this very positive sense of discipline, of depth, rigor, focus, clarity, all of these things [...] I think we want to question the disciplines and want to borrow from them certain things, and get rid of other things, but ultimately we want structures that will allow us to take on those larger issues.”⁸⁷ Moncrieffe recognises the benefits of research that has come from the ‘melding of two worlds’ between disciplines in the last decade, noting that research collaborations between artists and scientists can cause scientists to “think outside of the box and help with the thought process of how we design experiments,” and she adds “it’s a transference of skills from both sides into the middle to create a new level of thought process, on how to do things.”⁸⁸
- 1.1.5.7 In describing practice research as being conducive to transdisciplinarity, we recognise its potential for new and radical approaches to research. A growing number of transdisciplinary projects have emerged from practice researchers in the last decade.⁸⁹ At Queen Mary, University of London, the People’s Palace Projects, founded by Professor Paul Heritage, conducts groundbreaking community practice research confronting public security, human rights, social justice and indigenous cultural exchange across the globe.⁹⁰ In Barking and Dagenham, East London, Tessy Britton leads the *Every One Every Day* project where transdisciplinary practical participation and societal co-production systems are designed for citizens to transform their neighbourhood through their everyday lives.⁹¹ At Goldsmiths, University of London, Forensic Architecture, established by Professor Eyal Weizman, is a transdisciplinary research agency that has a mandate to “investigate state and corporate violence, human rights violations and environmental destruction all over the world.”⁹²

85 Paul Nurse, “Ensuring a successful UK research endeavour: A review of the UK Research Councils,” UK Government, 19 November 2015, accessed 25 November 2020, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478125/BIS-15-625-ensuring-a-successful-UK-research-endeavour.pdf.

86 Torsten Reimer, interview by the authors, 2 May 2019.

87 Ben Spatz, interview.

88 Danielle Moncrieffe, interview.

89 The authors note that hybrid approaches across disciplines are not new, and there are many publications that explore interdisciplinary collaborations historically. One recent anthology of these projects is Patrick McCray, *Making Art Work: How Cold War Engineers and Artists Forged a New Creative Culture* (Cambridge, MA: The MIT Press, 2020).

90 For more information about the People’s Palace Projects, including their practice research projects in Burkina Faso, Azerbaijan and Brazil, please see their website: “People’s Palace Projects,” accessed 22 November 2020, <https://peoplespalaceprojects.org.uk/>.

91 “Every One Every Day,” Participatory City, accessed 24 November 2020, <http://www.participatorycity.org/every-one-every-day>.

92 For more information about Forensic Architecture, please see: “Agency,” Forensic Architecture, accessed 22 November 2020, <https://forensic-architecture.org/about/agency>.

1.2 THE FIELD OF PRACTICE RESEARCH

Key points from the section

- The umbrella term 'practice research' frames a research field that exists across and beyond disciplines.
- Practice research varies across and beyond subjects and disciplines, with many possible balances of practice and research, and potentially multiple methods present in its operation.
- Research narratives in practice research outputs can take many forms, be in any format and work best when they effectively communicate the research inquiry.

1.2.1 DESCRIBING PRACTICE RESEARCH

1.2.1.1 Over many decades the community of practice researchers in England and internationally has debated, discussed and dissected the collective terming for the field of 'practice research.'⁹³ Whilst this debate has been fruitful and necessary in seeking to provide a common language description, it has also stymied attempts at progress, caused circularity in conversation and created a conflation of statements about methods, sometimes overwhelming the research narratives in practice research projects themselves. The terming of the field has brought researchers to a stasis, as Crossick observes: "meanwhile the world that there is stands still, which means it goes backwards, while they resolve that issue."⁹⁴

1.2.1.2 For each practice researcher, the way that practice functions as the significant method conveyed in a research output will likely be different, informed by factors such as interdisciplinary/transdisciplinary approaches (if applicable), discipline specificity and subject matter. Much of the discussion and theorisation of practice research up to this point has focused on finely detailing the differing types of practices as methods, and how they are conveyed in research outputs in different fields. The collective term 'practice research' is an umbrella term for the field that is inclusive of all of these important and interesting discussions.

1.2.1.3 To acknowledge the sheer diversity of these discussions, and in recognition of the important ideological and structural arguments that have unfolded in the arts in England, some examples of the most prominent practice research methods in the arts follow:

Art as Research

In his 1993 paper "Research in Art and Design" writer Christopher Frayling identifies three categories for arts research: research into art (e.g. historical, aesthetic or perceptual research), research through art (e.g. materials research, development work, action research), and research for art (e.g. visual, iconic or imagistic communication).⁹⁵ Borgdorff, in his book *The Conflict*

93 The removal of capitalisation is an informed choice, demystifying the term and placing it amongst its peers of qualitative, quantitative/empirical and other research forms.

94 Geoffrey Crossick, interview.

95 Christopher Frayling, "Research in Art and Design," *Royal College of Art Research Papers*, Vol 1, No. 1, 1993/94 (London: Royal College of Art, 1993), 5.

of the *Faculties* (2012) employs this trichotomy, but with a twist: (a) research on the arts, (b) research for the arts, and (c) research in the arts. “Research on the arts is research that has art practice in the broadest sense of the word as its object. [...] Research for the arts can be described as applied research in a narrow sense. In this type, art is not so much the object of investigation, but its objective. [...] Research in the arts [...] concerns research that does not assume the separation of subject and object, and does not observe a distance between the researcher and the practice of art. Instead, the artistic practice itself is an essential component of both the research process and the research results.”⁹⁶ Over a decade after Frayling made the distinction of research “into” and “through” art, in the foreword to *Thinking through Art: Reflections on Art as Research* (2006), he described art as research where “the methods and conventions and debates of research were perhaps embodied in the artefact itself.”⁹⁷ Art as research is proposed as a term to undo the dichotomies of theory and practice: “[T]here are still many confusions surrounding the idea of art as research. The current phrase of choice to describe this idea is practice-based research, a phrase I dislike because it simply restates the old theory/practice dichotomy in a new guise while seeming to say more.”⁹⁸

Arts-Based Research

Arts-based research, used by academic Elliot Eisner for the first time at an educational event at Stanford University in 1993⁹⁹ is largely employed in fields such as education, healthcare and therapeutic studies to denote a methodological approach which incorporates elements of creative arts to form an interdisciplinary model of investigation for social sciences.¹⁰⁰ The term also emerged in literature in singular form through the author Shaun McNiff, who defines art-based research as “the use of artistic expression by researchers as a primary mode of enquiry.”¹⁰¹

Arts-based research is often discussed as a subversive mode of investigation:¹⁰²

“By calling upon artful ways of knowing and being in the world, arts-based researchers make a rather audacious challenge to the dominant, entrenched academic community and its claims to scientific ways of knowing. In addition, arts-based methodologies bring both arts and social inquiry out of the elitist institutions of academe and art museums, and relocate inquiry within the realm of local, personal, everyday places and events.”¹⁰³

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- 96 Henk Borgdorff, *The Conflict of the Faculties: Perspectives on Artistic Research and Academia* (Leiden: Leiden University Press, 2012), 37.
- 97 Christopher Frayling, foreword to *Thinking through Art: Reflections on Art as Research*, ed. Katy Macleod and Lin Holridge (Oxon; New York, NY: Routledge, 2006), xiii.
- 98 Christopher Frayling, foreword.
- 99 Tom Barone and Elliot W. Eisner, *Arts Based Research* (Thousand Oaks, CA: Sage, 2012), ix.
- 100 Anita Sinner et al., “Arts-Based Educational Research Dissertations: Reviewing the Practices of New Scholars,” *Canadian Journal of Education* 29, no. 4 (2006): 1226.
- 101 Shaun McNiff, “Opportunities and challenges in art-based research,” *Journal of Applied Arts and Health* 3, no. 1 (2012): 5.
- 102 For example see: Susan Finley, “Arts-Based Research,” in *Handbook of the Arts in Qualitative Research: Perspectives, Methodologies, Examples and Issues*, ed. J. Gary Knowles and Ardra L. Cole (Thousand Oaks, CA: Sage, 2008), 71–81; Victoria Foster, *Collaborative Arts-based Research for Social Justice* (Oxon; New York, NY: Routledge, 2016); Tom Barone and Elliot W. Eisner, *Arts Based Research* (Thousand Oaks, CA: Sage, 2012).
- 103 Susan Finley, “Arts-Based Research,” in *Handbook of the Arts in Qualitative Research: Perspectives, Methodologies, Examples and Issues*, ed. J. Gary Knowles and Ardra L. Cole (Thousand Oaks, CA: Sage, 2008), 72. For further reading, see: Tom Barone and Elliot W. Eisner, *Arts Based Research* (Thousand Oaks, CA: Sage, 2012); Patricia Leavy, *Method Meets Art* (New York, NY; London: Guilford Press, 2015); Pranee Liamputtong and Jan Rumbold, eds., *Knowing Differently: Arts-Based and Collaborative Research Methods* (New York, NY: Nova Science Publishers, 2008); J. Gary Knowles and Ardra L. Cole, ed., *Handbook of the Arts in Qualitative Research: Perspectives, Methodologies, Examples and Issues* (Thousand Oaks, CA: Sage, 2008); Susan Walsh, Barbara Bickel and Carl Leggo, ed., *Arts-based and Contemplative Practices in Research and Teaching* (Oxon; New York, NY: Routledge, 2016).

Arts Research

Arts Research is a categorisation reminiscent of “science research” or “humanities research.” While “art as research” can be predominantly found in literature in the fields of fine art, design, and performance, and “arts-based research” in educational and therapeutic studies; “arts research” or “creative arts research” can be found across literature in different disciplinary areas. For example, Elizabeth Grierson and Laura Brearley’s edited volume *Creative Arts Research: Narratives of Methodologies and Practices* (2009) presents an educational studies perspective, very much in the vein of arts-based research, with no descriptive distinction between the two terms.¹⁰⁴ Estelle Barrett and Barbara Bolt make use of different terms in the titles of their edited volumes *Practice as Research: Approaches to Creative Arts Enquiry* (2007)¹⁰⁵ and *Material Inventions: Applying Creative Arts Research* (2014).¹⁰⁶ The introduction to the latter lists additional distinguishing characteristics for this kind of research, but the terms creative arts research, practice-led research, and practice-as-research are used interchangeably throughout.¹⁰⁷

Artistic Research

Artistic Research is a broad descriptor arising from Gothenburg University and Helsinki University that describes the combination of an artistic practice and research. In the preface for the 2005 publication *Artistic Research*, Hans Hedberg and Mika Hannula detail that artistic research “means that the artist produces an art work and researches the creative process, thus adding to the accumulation of knowledge.”¹⁰⁸ According to Julian Klein the use of the term commonly denotes strong interdisciplinary aspects.¹⁰⁹ Luisa Greenfield et al. describe it as “an approach that allows meaning to be generated through open-ended constellations of thought and it is a process receptive to contingencies.”¹¹⁰ Jan Kaila makes a clear distinction between arts research and artistic research: “Arts research is the investigation of objects of phenomena of art that are separate from the person conducting the research and therefore the researcher’s direction is towards the art. Artistic research is an investigative endeavor undertaken with the means of [sic] and the direction here is *from art towards the world*.”¹¹¹

104 Elizabeth Grierson and Laura Brearley, ed., *Creative Arts Research: Narratives of Methodologies and Practices* (Rotterdam: Sense Publishers, 2009).

105 Estelle Barrett and Barbara Bolt, ed., *Practice as Research: Approaches to Creative Arts Enquiry* (London: I.B. Tauris, 2007).

106 Estelle Barrett and Barbara Bolt, ed., *Material Inventions: Applying Creative Arts Research* (London: I.B. Tauris, 2014), 2-3.

107 Estelle Barrett and Barbara Bolt, ed., *Material Inventions*.

108 Hans Hedberg and Mika Hannula, preface to *Artistic Research: Theories, Methods and Practices*, by Mika Hannula, Juha Suoranta, and Tere Vadén (Helsinki and Gothenburg: Academy of Fine Arts, University of Gothenburg/Art Monitor, 2005), 5.

109 See Julian Klein, “What is Artistic Research?” Artists’ Research Centre website, accessed 26 August 2019, <https://artistsresearchcentre.org.uk/research/writing-what-is-artistic-research>.

110 Luisa Greenfield, Myna Trustram and Eduardo Abrantes, *Artistic Research: Being There. Explorations into the Local* (Copenhagen: NSU Press, 2017).

111 Jan Kaila, “Artistic Research Formalized into Doctoral Programs,” in *Designing Knowledge*, ed. Jurgen Weidinger (Berlin: Universitätsverlag der TU Berlin, 2015), 29. (Emphasis in the original).

Performance as Research

Debates surrounding performance as research have made significant contributions to the practice research field by highlighting a number of issues and challenges, including those arising from the durational nature of practice, challenges of capture and documentation, and whether research needs to always employ language. Performance practice as research, as used by researcher Baz Kershaw, stipulates “the uses of practical creativity as reflexive enquiry into significant research concerns (usually conducted by “artist/scholars” in universities).”¹¹² Due to the breadth of its scope “performance practice as research more precisely defines itself as method and methodology in search of results across disciplines: a collection of transdisciplinary research ‘tools.’”¹¹³ Spatz, however, emphasises the importance of thinking of “practice” and not “performance” as research, arguing it is a more radical proposition.¹¹⁴

- 1.2.1.4 Since the 1990s, the formation of practice research as a field has been energised by the concerns of arts researchers. There has, however, been a muddling in the use of practice research as an overarching umbrella term for the field, with those of its specific disciplinary sub-formations, each of which have their own distinct balances, perspectives and attitudes. This exclusionary state of affairs, where practice research becomes synonymous with specific disciplines, has caused much frustration across the research landscape as Brown details: “Why are you telling me the nurses are not involved in practice research? Why are you telling me the lawyers are not involved? Why are you telling me the business schools are not involved? There’s lots of people involved in practice, not just arts and design. I think it gets muddled up with creative practice, that’s the problem.”¹¹⁵
- 1.2.1.5 Non-discipline specific terms that we have encountered in the field of practice research in England include:

Action Research

Action research is:

“a term that is used to describe a global family of related approaches that integrate theory and action with the goal of addressing important organizational, community and social issues together with those who experience them. It focuses on the creation of areas for collaborative learning and the design, enactment and evaluation of liberating actions through combining action and reflection, in an ongoing cycle of co-generative knowledge.”¹¹⁶

Action research is commonly understood as having originated in the work of John Collier and Kurt Lewin in the 1930s and 1940s. Though it has been adopted by a variety of disciplines, currently we have found the most examples in fields such as education and social work.

112 Baz Kershaw, “Performance Practice as Research: Perspectives from a Small Island,” in *Mapping Landscapes for Performance as Research: Scholarly Acts and Creative Cartographies*, ed., Shannon Riley and Lynette Hunter (Basingstoke: Palgrave Macmillan, 2009), 4.

113 Baz Kershaw, “Performance Practice as Research,” 5.

114 Ben Spatz, “Introduction III. Mad Lab – or why we can’t do practice as research,” in *Performance as Research: Knowledge, Methods, Impact*, ed. Annette Arlander, Bruce Barton, Melanie Dreyer-Lude, and Ben Spatz (Oxon; New York, NY: Routledge, 2018), 209.

115 Bruce Brown, interview.

116 David Coghlan and Mary Brydon-Miller, “Introduction,” in *The Sage Encyclopedia of Action Research*, ed. David Coghlan and Mary Brydon-Miller (Thousand Oaks, CA: Sage, 2014), xxv.

According to *The Sage Handbook of Action Research* (2008), action research has the following five characteristics: human flourishing, practical issues, knowledge in-action, participation and democracy, emergent developmental form.¹¹⁷ As indicated by these characteristics, it has a clear change-transformation agenda.¹¹⁸

Close-to-practice (CtP) research

According to the British Educational Research Association (BERA), “close-to-practice research focusses on issues defined by practitioners as relevant to their practice, and involves collaboration between people whose main expertise is research, practice, or both.”¹¹⁹ This definition builds upon Jo Cooke’s 2005 paper which points out the need to ensure research is close to practice in order to build research capacity in healthcare.¹²⁰ The main difference between CtP research and other denominations of practice research is that in CtP research is defined through its relation to practice, as a research type specifically addressing the issues raised by practice. Its collaborative nature makes it possible to rely on the use of joint expertise in either practice or research—but not necessarily in both.

Embodied Research

Embodied Research is a term used in psychotherapy, education, performance arts and social sciences.¹²¹ In embodied research the experience of the body and its relationship to others are an essential part of the research process. For Embodied Research, Spatz proposes a methodology that is related to action research, artistic research, practice research, performance research, and the like, “but distinct from them in the extent to which it prioritizes embodiment.”¹²²

Participatory Research

Participatory Research in literature can be found in such combinations as ‘participatory action research’ and ‘community-based participatory research.’ It often takes health and wellbeing as its focus and in a similar vein to action research, it emphasises the inclusion of constituent communities in the research process. It embraces a multiplicity of methods while bearing a special consideration for research ethics.

117 Peter Reason and Hilary Bradbury, “Introduction,” in *The Sage Handbook of Action Research*, ed. Peter Reason and Hilary Bradbury (Thousand Oaks, CA: Sage, 2008), 5.

118 “For action researchers in education, the practice/inquiry combination at the heart of the work aims at making a situation such as a classroom or whole school system better by responding to the continuous need for development or change.” See: Hilary Bradbury, Rolla Lewis, and Dusty Columbia Embury, “Education Action Research: With and for the Next Generation,” in *The Wiley Handbook of Action Research in Education*, ed. Craig A. Mertler (Hoboken, NJ: Wiley Blackwell, 2019), 7.

119 Dominic Wyse, Chris Brown, Sandy Oliver and Ximena Poblete, *The BERA Close-to-Practice Research Project: Research Report* (London: British Educational Research Association, 2018), 1. https://www.bera.ac.uk/wp-content/uploads/2018/11/BERA-Close-to-Practice_full-report_Nov2018.pdf

120 Jo Cooke, “A framework to evaluate research capacity building in health care,” *BMJ Family Practice* 6 (2005): article no. 44.

121 Jennifer Frank Tántia, “Introduction,” in *The Art and Science of Embodied Research Design: Concepts, Methods and Cases*, ed. Jennifer Frank Tántia (Oxon; New York, NY: Routledge, 2020), xxx.

122 Ben Spatz, “Embodied Research: A Methodology,” *Liminalities: A Journal of Performance Studies* 13, no. 2 (2017): 3. For a comprehensive account of embodied knowledge and research in Spatz’s work, see: Ben Spatz, *What a Body Can Do: Technique as Knowledge, Practice as Research* (Oxon; New York, NY: Routledge, 2015). Also see: Ben Spatz, “Practice as Research: Foundations for a Community of Knowledge,” *Dance Research Journal* 43, no. 1 (2011): 48–57.

Practice as Research (PaR)

The term “Practice as Research” was coined by Nelson in his book *Practice as Research in the Arts* (2013) where practice is a “key method of inquiry” and is “submitted as substantial evidence of a research enquiry.”¹²³ Practice in Nelson’s thinking is defined as a type of method. The method is paired with research through the preposition “as.” Nelson’s definition of practice as research is closest to the umbrella term ‘practice research’ we employ in this report, but we note that the conjunctive ‘as’, used to bond practice with research, creates a feeling of replacement that doesn’t convey simple and direct interrelation.

Practice-Based Research

In “Practice-Based Research: A Guide” (2006) Linda Candy distinguishes between practice-based and practice-led research:

- “1. If a creative artefact is the basis of the contribution to knowledge, the research is practice-based.
2. If the research leads primarily to new understandings about practice, it is practice-led.”¹²⁴

Candy’s description does not entirely accord with the use of the term in other disciplines. In clinical practice, practice-based research is used commonly, especially in psychotherapy, public health and family medicine. Alluding to P. A. Nutting and K. C. Strange’s definition from 1998, R. Trent Codd III states in his 2018 book *Practice-Based Research: A Guide for Clinicians* that it “in simple terms, refers to research conducted within practice settings.”¹²⁵ An historical account provided by Larry A. Green and John Hickner traces a rich history of practice-based research networks (PBRNs) to the work of 5 general practitioners, namely James Mackenzie, Will Pickles, John Fry, F. J. A. Huygen, and Curtis G. Hames, who operated across England, the Netherlands and the US in the late 1800s and early 1900s indicating perhaps some of the earliest formal practice research we have come across.¹²⁶

The discussions and challenges surrounding practice-based research as found in health-related fields show a great degree of resemblance to respective discussions in the field of creative arts, notably referring to internal and external validity, funding issues, methodological concerns, assessment structures, and the like.¹²⁷

Practice-Led Research

For artist researcher Carole Gray, problem formation for practitioners does not necessarily take place in a neat or predictable way, but emerges over time according to the needs of the

123 Robin Nelson, ed., *Practice as Research in the Arts: Principles, Protocols, Pedagogies, Resistances* (London: Palgrave Macmillan, 2013), 8–9. <https://doi.org/10.1057/9781137282910>.

124 Linda Candy, “Practice-Based Research: A Guide,” *Creativity & Cognition Studios*, 2006, <https://www.creativityandcognition.com/wp-content/uploads/2011/04/PBR-Guide-1.1-2006.pdf>.

125 P. A. Nutting and K. C. Strange, “Practice-based Research,” in *Family Medicine: Principles and Practice* (5th ed.), ed. R. B. Taylor (New York, NY: Springer, 1998) quoted in R. Trent Codd, III, ed., *Practice-Based Research: A Guide for Clinicians* (Oxon; New York, NY: Routledge, 2018), 4.

126 Larry A. Green and John Hickner, “A Short History of Primary Care Practice-based Research Networks: From Concept to Essential Research Laboratories,” *The Journal of the American Board of Family Medicine* 19, no. 1 (2006): 1–10.

127 For example, see: Rolf Holmqvist, Björn Philips and Michael Barkham, “Developing practice-based evidence: Benefits, challenges, and tensions,” *Psychotherapy Research* 25, no. 1 (2015): 20–31; R. Trent Codd III, ed., *Practice-based Research*, 2018.

practice and the evolving sense of what a project is. That is not to say that the fundamental research questions necessarily change, but more that the final problems are not decided until the practice-led project is completed. In her 1996 demarcation of practice-led research, Gray describes an approach that has resonated with many visual-arts practitioners and other professional practitioners: those who immerse themselves in their practice, and allow research strategies to emerge from that.¹²⁸

- 1.2.1.6 Despite the wide array of disciplinary and non-disciplinary specific terminologies and descriptors, we found it has been the desire of all of our interviewees to embrace the opportunity that practice research affords as an umbrella term. As Scenography researcher Rachel Hann notes: “historically there had been lots of in-fighting [...] practice research alleviates us from that.”¹²⁹ In terming the overall field ‘practice research’ we recognise the need to avoid specific disciplinary or phenomenological framings, outlining the field as broadly as possible, with solely the essential ‘practice’ added to the necessary ‘research.’ If we were to utilise a term that specifically included the creative arts for example (such as Arts Research, Creative Research or Arts-Based Research), we would immediately limit the inclusivity of the field to researchers from all disciplines.
- 1.2.1.7 Many of our interviewees expressed a deep weariness surrounding discussions of terminology, describing it as a conversation that has clouded, confused and impeded the development and growth of practice research. For sports and performance researcher Broderick Chow, the discussion has limited conversation in other vital areas of the field, such as ethics.¹³⁰ This type of reaction can also be read in the pragmatism of theorist and researcher Michael Biggs, who states when questioned of his use of the descriptor ‘practice-based research’: “I had always used it simply as a shorthand and the least argued over term at a time when I was writing in the hope of avoiding those questions.”¹³¹ Biggs goes on to note: “we don’t have any of these discussions in my committee about these sort of territorial boundaries and definitions of practice-led or practice-based and all of this. It’s just not the right way to go. Not productive.”¹³² There is a rare honesty in what Biggs says here: agreed descriptive language is necessary, and by not embracing this fact, the confusion only worsens. In the summative ‘practice research’ any number of methodological twists can be brought under one umbrella term, in recognition of a field where all disciplines and practices are welcome. We note the benefit of the widespread use of the summative term ‘practice research’ from here on, having drawn and dissected its pros and cons across numerous interviewees, and found consensus for its deployment.
- 1.2.1.8 The term ‘practice research’ initially emerged from discussions between academics Anne Boddington, Simon McVeigh, Maria Delgado, Andrea Philips, and Mark d’Inverno, surrounding the formation of the Practice Research Advisory Group (PRAG-UK) from 2015–2017. In its simple conjoining of method and inquiry, the term avoids any equivalence or discipline specificity, defining a distinct and clear character of research. We hope its use will shift the focus of practice researchers away from discussions of definitions and delineations, and on to the work of practice research itself. Practice research has the potential to promote disciplinary collaboration, breaking

128 Carole Gray, “Inquiry through Practice: developing appropriate research strategies,” Carole Gray’s personal website, accessed 30 November 2019, <http://carolegray.net/Papers%20PDFs/ngnm.pdf>. Also see: Carole Gray, “Inquiry through Practice: developing appropriate research strategies,” in *No Guru, No Method? Discussions on Art and Design Research*, ed. Pia Strandman (Helsinki: University of Art & Design, UIAH, 1998).

129 Rachel Hann, interview by the authors, 23 November 2020.

130 Broderick Chow, interview by the authors, 6 March 2020.

131 Michael Biggs, interview by the authors, 24 April 2019.

132 Michael Biggs, interview.

down boundaries between disciplines, between the institutional and non-institutional research communities, and opening the domain of research to the wealth of under-represented ways of knowing that emerge in practice.

1.2.2 RESEARCH NARRATIVES

- 1.2.2.1 All practice research includes or embodies a research narrative, where practice is the significant method of research in a research output. Practice research is both practice and research narrative, as one output (not necessarily as two separate elements). The decision whether the composition of a research narrative follows the practice taking place, or is part of it or embodied by it, will be made by the researcher on a case-by-case basis. Our findings indicate that in most cases, an effective means to share ways of knowing in practice research is by joining a research narrative to a practice. As Nelson puts it: “I wouldn’t want to say, ‘You absolutely have to have a meta-narrative,’ I can think of some exceptions, but generally speaking, yes I think research is helped by meta-narrative.”¹³³
- 1.2.2.2 A research narrative, combined with, or embodied in, practice, clearly portrays the insights gleaned. It answers the question that Redhead poses: “at what point does knowledge occur?”¹³⁴ Theorist Graeme Sullivan highlights the importance of uncovering the locus of inquiry in arts practice research: “practice-led research is circumscribed by an equally important emphasis placed on the artist practitioner, the creative product and the critical process. The locus of inquiry can begin at any of these three points. What is critical, however, is the interdependence of these domains and the central role making plays in the creation of knowledge.”¹³⁵
- 1.2.2.3 In some instances practice, in and of itself, conveys both practice and research narrative as one experience, being both practice and practice research simultaneously. This is where, as Brown puts it, the research is self-evident in the practice.¹³⁶ We include examples of this in 1.4 *Examples of practice research*.
- 1.2.2.4 For some practice researchers, a parallel ‘extra’ research narrative to their practice is seen as a burden, a taint upon the practice itself. But accompanying practice with a research narrative that conveys the key ways of knowing that the practice illuminates can be liberating for the practice, as Cotterrell notes: “it can save the work from having to be too literal.”¹³⁷ For most practice researchers, the use of a conjoined research narrative with practice affords an opportunity for the contextualisation and explanation of processes and research questions that are difficult or impossible to portray in practice alone. For Pavitt, for example, practice research provides a welcome opportunity for further contextualisation and explanation of the practice of exhibition making and the subject of the exhibition itself.¹³⁸

133 Robin Nelson, interview. In early conversations surrounding these reports, ‘meta-narrative’ was the formulation we were working with, hence Nelson’s response in conversation – we note that this is not a term that Nelson necessarily employs himself.

134 Lauren Redhead, interview.

135 Graeme Sullivan, “Making Space: The Purpose and Place of Practice-led Research,” in *Practice-led Research, Research-led Practice in the Creative Arts*, ed. Hazel Smith and Roger T. Dean (Edinburgh: Edinburgh University Press, 2014), 48.

136 Bruce Brown, interview.

137 David Cotterrell, interview.

138 Jane Pavitt, interview.

- 1.2.2.5 There are many researchers and theorists that we spoke to who question whether in most scenarios practice on its own constitutes research. As Biggs succinctly puts it: “I don’t believe that objects can speak for themselves.”¹³⁹ But perhaps the most common perspective on this subject exists somewhere in between, as summarised by artist and researcher Charlotte Hodes in reference to the work of artist Nancy Spero: “I think you could see her work in terms of research. I don’t think it should be considered as distinct from practice research, I think there is an overlap and I think that sometimes there isn’t overlap. There is a concentric circle that doesn’t always meet.”¹⁴⁰ As Nelson describes in a neat analogy: “you know Wittgenstein’s Duck-Rabbit? You look at the sketch in one way and it’s a duck, and look at it in another way and it’s a rabbit? I use that a lot to say, ‘if you look at it from this point of view it’s from an arts point of view, if you look at it from this point of view it’s from a research point of view. It’s the same thing.”¹⁴¹ From our interviewees we found that dependent on the audience and the framing of the practice, practice can be practice research, or practice.
- 1.2.2.6 For the vast majority of practice research outputs, it is not possible for research audiences to experience the practice first hand, and as a result ‘documentation’ is employed as a proxy for practice. In recent years, the meaning of the term ‘documentation’ has become blurred, shifting from simply representing practice, toward a collective term, often describing both practice and research narrative together, and hence acting interchangeably with the term practice research itself. We urge caution in this blurred use of the term, particularly given the vital utility that ‘documentation’ has in defining surrogate materials for practice. Within practice research, documentation can act as the surrogate for the occurrence of practice, with a research narrative often providing further context and explanation.
- 1.2.2.7 Within these reports we employ the term ‘research narrative’ to illustrate the articulation of a research inquiry in practice research. Alongside practice and/or its documentation, the whole is the practice research output. We discussed and debated various terms for a research narrative, considering words such as meta-narrative, abstract,¹⁴² statement,¹⁴³ and exposition,¹⁴⁴ all of which are in everyday use in research communities, literature and assessment criteria. Many of these terms, whilst well-meaning, serve to confound the role of a research narrative in practice research: they evoke discipline specific concerns, or contradict the fact that practice *in and of itself* can be practice research. In using terms like ‘meta-narrative’ a hierarchy is ventured between what ought to be equal and conjoined. In the use of ‘abstract’ a technical and functional blurring exists with the use and function of the word in other forms of research. Many other terms impose limitation on the scope of what a research narrative might entail, defining strict word limits, content limitations and publication avenues.

139 Michael Biggs, interview.

140 Charlotte Hodes, interview by the authors, 30 April 2019.

141 Robin Nelson, interview.

142 Many institutional repositories across England use the existing ‘abstract’ field as a way of containing the research narrative for practice research outputs, for lack of something more appropriate.

143 The ‘300-word statement’ employed as an optional part of the assessment of practice research in REF 2021 is an example of this.

144 See the use of ‘exposition’ in the Research Catalogue, a repository of research attached to *JAR (Journal for Artistic Research)*, accessed 12 November 2019, <https://www.jar-online.net/>. A thorough explanation of the term can be found in Henk Borgdorff and Michael Schwab, ed., *The Exposition of Artistic Research: Publishing Art in Academia* (Leiden: Leiden Univ. Press, 2014).

- 1.2.2.8 It is important to have clarity in the application of descriptive terms in the field of practice research. This includes careful and considered use of the terms ‘practice’ (which may be represented by a proxy ‘documentation’), ‘research narrative’ (which need not necessarily be a separate component from practice if the research is evident from the practice itself), and ‘practice research output’ (in which practice is conveyed or embodied in a research narrative, where practice is the significant method of research).
- 1.2.2.9 Despite the attractive economy of presenting practice research in practice alone, without a parallel research narrative the practice researcher risks not making clear and accessible their contribution to the research community and broader audiences. If a practice researcher wishes to submit their research for assessment within academia in England, assuming that a research narrative is readily apparent within the occurrence of practice can be a risky business. As Corby observes when explaining the process of institutional assessment for practice research outputs: “We can start guessing but it’s not our job to guess. It’s the job of the researcher to articulate what is the innovation.”¹⁴⁵ We explore the assessment of practice research in detail in this report in 1.3.3 *Assessment of practice research*.
- 1.2.2.10 In many cases research narratives for practice research may be appropriately presented in traditional text-based research item types (including PhD dissertations, books and articles). As Biggs observes “it would seem a bit perverse to avoid the efficiency of linguistic communication [...] I don’t see that as any sort of undermining of the value of the non-linguistic part.”¹⁴⁶ Practice researchers should not feel a requirement to present their research in non-linear, cross-media and complex item types: in some instances a journal article or book chapter may be the most appropriate avenue for a research narrative.
- 1.2.2.11 From our interviews, we found that many practice researchers are focused on the formulation of a research narrative as a practice in itself. They disregard traditional linguistic forms, feeling unable to consider them appropriate for their practice research outputs. The formulation of practice research can be balanced on a case-by-case basis, there is no right or wrong way: the researcher ought to balance the different elements in seeking to most successfully convey the research they want to disseminate to their intended audience.
- 1.2.2.12 Practice research narratives are often temporally non-linear – they might look back on a period of practice, detailing how a practical method and research impetus emerged. They may also detail how methods changed over the course of a project and that the research impetus may not have existed in the moment of doing the practice. Many traditional fields of research differ in these aspects: often the method and the research impetus may be predetermined. The traditional linear structure that practice research challenges makes it difficult to account for methods that emerge and alter over time within a research project. As Redhead observes, the ability to convey non-linearity in practice research outputs is both a strength and a challenge for researchers: “I think something that doesn’t start with a research impetus may end up being a part of something that does have a research impetus. So, I think that the timeline of practice research is not a linear timeline and that’s one of its difficulties.”¹⁴⁷ For Nelson, this requires an open mindset: “you have to frame something and be aware that it might change.”¹⁴⁸ Researchers Baz Kershaw and Helen Nicholson stress the positive

145 Tom Corby, interview.

146 Michael Biggs, interview.

147 Lauren Redhead, interview.

148 Robin Nelson, interview.

benefits of the unpredictable paths practice research processes can lead down: “The unpredictable accidents of reflexive methods in theatre arts research can be productive of positive, creative, methodological revision.”¹⁴⁹ Reflexive methodologies exist across research fields, be it medicine, pottery or archaeology, and in practice research their processes can be truthfully accounted for and effectively shared.

- 1.2.2.13 Research narratives in practice research outputs are susceptible to over-emphasis on philosophical debates surrounding practice as method. This is fuelled by the lack of guidance and consensus as to what practice research is, and how a practice research output is formed. This issue was mentioned in many interviews we conducted, with journal editors, PhD supervisors and research assessors observing the excessive length of time taken by practice researchers to get to the discussion of the research itself, prefacing their work with long philosophical and ontological explanations of how practice is the significant method within the research output.¹⁵⁰ This reflects a generalised anxiety surrounding practice as a legitimised method of research: results claimed by practice researchers do not currently assume authority in the same way as those conducted using traditional research methods including qualitative or quantitative analysis.¹⁵¹ Unless relevant to describing the practice as method, there is no need for additional philosophical justification of practice as method, just as there is no need to justify the existence of qualitative or quantitative research techniques in other areas of research.
- 1.2.2.14 A theme that arose across a number of our interviews was that the field of practice research should cultivate an open and inclusive approach to the languages it uses to communicate its findings. The linguistic form of the research narrative in traditional research fields has provoked problems of comprehension and practical viability, hindering the ability of both general research audiences (inside and outside of academia) and specific audiences (assessment audiences, cross-disciplinary audiences) to access and comprehend the research. In our interviews we heard stories of practice research outputs where the sheer length, complexity, or verbosity of language used made the research inaccessible. There is a fear, acknowledged by many of our interviewees, particularly in the Arts, that by accepting the use of simple language forms drawn from traditional research fields, artistic legitimacy will be brought into question.¹⁵² Teamed with this is the common desire to seem ‘academic’ as Hill observes: “there’s a lot of work that needs to be done to produce a succinct piece of work, and actually it’s often easier not to [...] but I think part of this is ‘academic language’, and this desire to make things look academic.”¹⁵³ Brown emphasises the need for practice researchers to adopt simple and accessible forms of language: “I think the simpler the language, the more powerful the proposition. What you don’t want to do is explain a little idea in big words. You want to explain a big idea in little words.”¹⁵⁴

149 Baz Kershaw and Helen Nicholson, “Introduction: Doing Methods Creatively,” in *Research Methods in Theatre and Performance*, ed. Baz Kershaw and Helen Nicholson (Edinburgh: Edinburgh University Press, 2011), 9.

150 Borgdorff during our interview discussed the ongoing issue that *JAR (Journal for Artistic Research)* has with submissions where the methodology section swells and dominates over the discussion of the practice research project itself.

151 In a manifesto published in 2006, Brad Haseman put forward an argument for practice-led research “to be understood as a research strategy within an entirely new research paradigm: performative research. Taking its name from J.L. Austin’s speech act theory, performative research stands as an alternative to the qualitative and quantitative paradigms by insisting on different approaches to designing, conducting and reporting research.” This is an example of how, by the mid-2000s, practice research was still finding its place within the existing landscape of research typologies. See: Brad Haseman, “A Manifesto for Performative Research,” *Media International Australia* 118, no. 1 (2006): 98. <https://doi.org/10.1177/1329878X0611800113>.

152 David Cotterrell, interview.

153 Steven Hill, interview.

154 Bruce Brown, interview.

- 1.2.2.15 A practice research output, as practice and research narrative, may be shared in any item type or format: text, performance, film, sound recording, audiovisual, software, etc., as long as it conveys the research inquiry. As Reimer puts it: “you can use whatever medium you want, as long as you find something that’s suitable.”¹⁵⁵
- 1.2.2.16 We proposed the term ‘research narrative’ to each of our interviewees and drew consensus for its use to describe the manner in which ways of knowing from practice are conveyed in practice research outputs. As a result we propose that this compound term may be adopted widely when discussing practice research.

155 Torsten Reimer, interview.

1.2.3 AUDIENCES FOR PRACTICE RESEARCH

- 1.2.3.1 To open up discussion about who the audiences of practice research are, we posed two questions to each interviewee involved in this report: i) What does ‘effectively shared’ mean in terms of research? ii) Does research have to exist beyond the moment of its occurrence? Practice research has a plethora of audiences, and its ability to instigate change in the world is directly related to its engagement with them. For Brown, the aim of practice research should be to reach the widest audience possible, stretching far beyond the researcher’s peer group: “It’s not about absolute principles, it’s about absolute audiences. [...] I think the absolute audience has to be somebody who knows nothing about this research. It’s not people in the know.”¹⁵⁶
- 1.2.3.2 For Harradine however, whose practice research centres around participatory performance, these waters are muddier. Research can be shared effectively in intimate and locally bespoke ways: “There are so many effective ways to ‘communicate’, ‘disseminate’ or ‘share’ the results of practice research, and not all of them look anything like communication, dissemination and sharing that might be ‘officially’ recognised – or hierarchically valued – by REF or the academy. [...] Is the question related to the notion of the repository, and the value that is ascribed to searchability? These things hold value in certain places and for certain people in certain contexts, but not for other people, participants in, and audiences for research in others. The value they hold for certain people or institutional contexts does not mean that only research which shares these values is ‘research.’”¹⁵⁷ This is an important rejoinder: as a field that promotes practice as opening up new ways of knowing, practice research can be open to new and radical ways of sharing research, both globally and locally.
- 1.2.3.3 In some interviews we encountered the view that it is not always possible to share some types of research beyond their occurrence in practice. For Eve, this argument has notable deficiencies: “If you’re going to say there are forms of knowledge that can’t be communicated, there are philosophical schools that will say that is complete nonsense. Take the late Wittgensteinian perspective on language. That’s not going to hold up well under that. Language cannot be epistemically private under that type of thinking, and knowledge as a consequence. Epistemic privacy doesn’t exist under that philosophical model.”¹⁵⁸ In the instance of publicly funded research, effective sharing is a contractual and moral obligation. However, it is important to note at this juncture that for many non-institutional researchers the tools for effective sharing are hard to access, or are costly.
- 1.2.3.4 For Crossick, if the research is a public activity worth seeking support, it should be shared beyond its instantiation: “new knowledge has to be transmitted to those who were not present when the knowledge was created. I think that is a fundamental requirement of research, at least research that is going to be seen as a public worth activity that we should all be supporting.”¹⁵⁹ For Brown, if a researcher is not interested in the legacy of their work, then it cannot be considered valid research: “it may be a form of practice, but unless there’s a kind of scholarship that says, ‘how are we going to construct the legacy, the knowledge legacy,’ for me, it’s not research.”¹⁶⁰ A current lack of effective sharing in practice research has caused a tendency toward reinventing the wheel: “you still get people sending you papers about drawing, as if nobody’s ever written about research into drawing

156 Bruce Brown, interview.

157 David Harradine, email to authors, April 3, 2019.

158 Martin Paul Eve, interview.

159 Geoffrey Crossick, interview.

160 Bruce Brown, interview.

over the last 50 years. Everybody starts from the beginning, nobody goes to anybody else, nobody builds on what has been done before.”¹⁶¹ Research creates discourse — without effective sharing there is a reduced chance of discourse, and the validity of the research can come under question.

- 1.2.3.5 For many practice researchers, particularly those active in academia, there is a vital relationship between practice research, scholarship and education: students are an important and often unremarked audience of practice research. This provides an important moral impetus for effective sharing, as Redhead notes: “this is an institutional culture where our job descriptions and everything about my life is not just to do with how I enrich myself sitting in this room, it’s also to do with how I transfer that to students and empower them to create knowledge within their practice, their life, and their research.”¹⁶²
- 1.2.3.6 The skills and techniques developed in presenting and effectively sharing practice research outputs are beneficial when seeking support from funding bodies. Funding bodies are an audience for practice research in themselves, and they wish to understand the context, methods and new ways of knowing that may arise from practice research outputs. As Corby illustrates: “If you develop the skills to articulate what you do as research, writing AHRC bids becomes a hell of a lot easier [...] The skills that are required to do a PhD or to articulate what you’re doing in research in a research frame are the same as those you need to apply for an AHRC bid.”¹⁶³
- 1.2.3.7 The requirements of funding bodies on researchers have had an impact on how practice researchers communicate their work. Crossick describes talking to a group of artists and performers in higher education to discuss how applying for funding and support affected the way they thought about their practices. For some: “‘it was not only straightforward to fit into those questions, it actually pushed us,’ ‘pushed me,’ they’d say, intellectually, ‘to actually think about what I was doing, whereas previously I’d allowed myself not to articulate what I was doing quite so clearly. It was very interesting and useful for me and it stretched me to do it.’”¹⁶⁴ Others however found that “‘we don’t fit that, we can’t fill out those forms.’”¹⁶⁵
- 1.2.3.8 There are ongoing debates surrounding whether the panels who undertake academic research assessment tasks such as REF can be considered as one of the primary audiences for practice research. In the context of research assessment exercises, Corby considers assessors as primary readers, and further audiences as secondary readers: “This is what I say to my PhD students. There’s a primary reader and you’ve got to get through the exam and it’s got to be clear and you’ve got to really write with that reader in mind and then there are the secondary readers or people who are going to come across your thesis later on in life. You’ve got to get past me first.”¹⁶⁶ As Nelson observes, if you are a researcher in higher education submitting your research for assessment, then effective sharing of your research is a prerequisite: “If you said to the REF panel ‘look, I did this fantastic piece of research, on this date at this time, I can’t tell you anything more about it than that, but it was fantastic.’ What are they going to do with that? Are they going to give you four stars?”¹⁶⁷

161 Bruce Brown, interview.

162 Lauren Redhead, interview.

163 Tom Corby, interview.

164 Geoffrey Crossick, interview.

165 Geoffrey Crossick, interview.

166 Tom Corby, interview.

167 Robin Nelson, interview.

- 1.2.3.9 When considering institutional assessment of practice research, dance researcher ‘Funmi Adewole noted that changes in the formulation and assessment of practice research will not be instant. It is important that researchers understand that the changes will be gradual and consider this in the formation of their research outputs: “you will have to change the way they think and the way they are able to assess knowledge and understanding. And so there’s a whole set of social relations, methodologies, that will need to evolve along with the formats that people get to work with. It can’t change fast.”¹⁶⁸

168 ‘Funmi Adewole, interview by the authors, 10 February 2020.

1.3 PRACTICE RESEARCH IN THE ACADEMY

Key points from section

- Practice researchers require institutional support in the form of specific facilities, guidance and training.
- Practice researchers often require institutional support to transition from professional practice to practice research.
- There is a need for targeted funding to create guidelines and resources surrounding practice research PhDs in England.
- Practice researchers need consistent support beyond the requirements of research assessments in institutions.
- There is a clear economic argument for academic institutions to provide targeted support to practice researchers in the academy.

1.3.1 PRACTICE RESEARCH IN THE ACADEMY

1.3.1.1 Practice research has an entwined relationship with the academy in England. The debates and discussions that have led to the full conception of the field have largely been driven by the philosophical and structural challenges that occurred when arts practitioners were brought into universities in the 1980s and 1990s. This merging brought the field into sharp focus, as practitioners engaged and explored the sharing of their work within traditional academic frameworks. As Nelson observes: “historically we can name numerous artists who have engaged in systematic enquiries you might define as research, arts have so very often been about enquiry. It only becomes a matter of, ‘Is it research or not research,’ when you get the institutional questions, or when people start doing PhDs.”¹⁶⁹

1.3.1.2 The academy can provide a fertile environment for professional practice to be shared as practice research, as Chow notes, it: “allows the practice to exist on a different time scale and with greater air to breathe [...] just a little bit more space, which is really really necessary for research to happen.”¹⁷⁰

1.3.1.3 It is the case that much of the discourse surrounding practice research is rooted in the academy. Even in Harradine’s research, which predominantly involves the participation of non-academic communities: “the conversations have been within academia.”¹⁷¹ To illustrate the depth of discussion that has emerged surrounding practice research in the academy, we include at the end of this report in *Appendix I*, a selection of notable conferences and symposia that have taken place in England during the period 2000–2020.

169 Robin Nelson, interview.

170 Broderick Chow, interview.

171 David Harradine, interview.

- 1.3.1.4 Practice research does not always arise from an initial research impetus, projects are also undertaken to gain support and recognition for professional practice within the academy. Crossick describes visiting a music conservatoire in England about fifteen years ago to discuss the situation: “We had a lot of discussion about their research, and the funding they were getting for it, and so on. And, at the end I said to them, ‘If there wasn’t any QR [quality-related] funding from the RAE, if there wasn’t any research council funding for the AHRC, would you call what you did research?’ And, they said, slightly reluctantly, but quite quickly actually, ‘No, we probably wouldn’t, we didn’t know it was research.’”¹⁷² This observation is important: it does not mean that the practice research that emerged was of lesser value, but rather illustrates how the development of a research culture can instigate the open sharing of previously undocumented ways of knowing.
- 1.3.1.5 Many practice researchers require specific facilities in order to undertake their research in the academy, be it film studios, theatre spaces, special collections, virtual reality suites, scientific laboratories, electronic music studios or libraries. Practice researchers often voice the need for specific facilities related to their research to institutional managers and to national policymakers, but many of our interviewees mentioned that these requests rarely resulted in adequate support provision. Instigating productive conversations is one of the reasons why the descriptor of ‘practice research’ is so important, as Cotterrell observes: “in universities there is a very practical reason why they have to (employ the category of practice research) — because practice research involves different facilities and resources. [...] Sometimes I think there are things which are to do with convenience and logistics as much as actually to do with what the thing is.”¹⁷³ We explore the challenges of institutional support for practice researchers further on in this report (see 1.5 *Issues and challenges*), where we also detail how a national independent practice research advisory body can advocate for researchers, institutional managers and research support professionals.
- 1.3.1.6 The requirements of the academy in England have led to particular output formations for practice research that might be substantially different if undertaken outside of academia. Nelson summarises this impact with reference to the arts: “you then come under the protocols and regulations of academic research, which is quite clearly defined as producing substantial new insights effectively shared, and that last phrase is important because you have to share your research in a way that you may not have to share your art.”¹⁷⁴ The academic requirement for research to be effectively shared has led to practice researchers exploring novel ways to present practice research outputs, creating challenges for research support professionals that include the provision of adequate hosting platforms, technical support with formats and metadata, and aggregation tools. We explore the important challenges raised by this in detail in our second report *How can practice research be shared?* (see section 2.6).
- 1.3.1.7 From our interviews, questionnaire responses, and survey results it is clear that the currently available tools for research analysis in the academy do not function well for the majority of practice research. The levels of investment put into tools for harvesting data, citations and other metrics by major funding bodies are not currently matched in support for analysis and reporting on the impact of practice research. For the impact of practice research to be accurately accounted for, this is an area that needs to be improved in the future. We explore the technical and structural challenges associated with analysing the impact of practice research outputs in our second report *How can practice research be shared?* (see section 2.6).

172 Geoffrey Crossick, interview.

173 David Cotterrell, interview.

174 Robin Nelson, interview.

- 1.3.1.8 A common theme amongst the practice researchers that we interviewed was that most academic institutions provide inadequate support and guidance for practice researchers. As Brown observes: “because their senior managers are not always experienced in these matters, they often don’t have the confidence to give support.”¹⁷⁵ Within academia in England, as Cotterrell notes, practice researchers should work collaboratively with institutional management, and over time they may take up leadership roles to ensure that good practice in this area is shared and enacted effectively.¹⁷⁶ We explore this challenge further on in this report, in 1.5.3 *Institutional support for practice research*, explaining how a properly resourced independent practice research advisory body can act as a nexus for guidance and training for both researchers and institutional management.

175 Bruce Brown, interview.

176 “People with that sense of belief and the credibility and integrity of that form of research have to make their way into quite a senior position in the institution, so that they change the culture of the institution at large.” David Cotterrell, interview.

1.3.2 PRACTICE RESEARCH PHDS

- 1.3.2.1 The advent of practice research PhDs in England is a recent one, with few such programmes in existence prior to 1990, and those that were mainly arising in the Arts. As researcher Fiona Candlin has written: “until the 1990s PhDs that included an element of practice, or were solely comprised of art practice were virtually unheard of; the RCA is perhaps the only English institution that had any long-standing history of such qualifications.”¹⁷⁷ The way that practice research PhD programmes have developed¹⁷⁸ has often informed changes across the wider field of practice research in England.
- 1.3.2.2 For many, PhD programmes are the vital bridge between professional practice and research culture. Drawing upon the commonalities of research process in arts and other disciplines, researcher Darren Newbury provides a useful definition of a practice research PhD: “a training in research through which the student develops *a reflexive competence in the procedures for handling and generating ideas and evidence* appropriate to the specific field of study and demonstrates *the capacity for making an original contribution* to that field of study.”¹⁷⁹ Researchers Katy Macleod and Lin Holdridge emphasise the importance of PhDs in developing research culture: “central to an appropriate development of substantial research cultures is the active presentation and dissemination of PhDs.”¹⁸⁰ Redhead describes her own experience, whereby undertaking a PhD functioned as a gateway from professional practice to practice research: “My background is a composer and organist and I did a composition PhD at the University of Leeds that I finished in 2011. During that time, I was interested in the idea of research and what the role of practice was in that research, and I was quite keen that I wasn’t going to make a PhD that would just be a portfolio of compositions and some writing about composition.”¹⁸¹
- 1.3.2.3 One of the other challenges that commonly faces practice research PhD students, as highlighted by Redhead, is that the locus of inquiry or use of specific methods may shift as a project is underway. This flexibility is present in other research fields, but is particularly important in practice research, deriving from what Pickering describes as the ‘resistance and accommodation’ of practice, and highlights the need for guidance and training for supervisors and institutional management to consider this not only valid, but fundamental for many practice research projects.
- 1.3.2.4 Guidelines are still emerging surrounding practice research PhDs, and many PhD supervisors we talked to described how their institutions were developing unique guidance for both practice research PhD students and supervisors. There is little sharing of these guidelines between

177 Fiona Candlin, “Practice-based Doctorates and Questions of Academic Legitimacy,” *Journal of Art & Design Education* 19, no. 1 (2000): 97. <https://doi.org/10.1111/1468-5949.00206>.

178 For a detailed account of how the PhD in studio art in the UK has developed, please see: James Elkins, ed., *Artists with PhDs: On the New Doctoral Degree in Studio Art* (Washington, DC: New Academia Publ., 2009). For a current examination of specific issues around and suggestions for the supervision of movement-based doctoral research, see: Jane Bacon and Vida L Midgelow, “Reconsidering Research and Supervision as Creative Embodied Practice: Reflections from the Field,” *Artistic Doctorates in Europe: Third-cycle provision in Dance and Performance*, accessed 23 November 2019, https://d201276f4e8gmb.cloudfront.net/wp-content/uploads/2019/04/01162830/ADiE-Research-and-Supervision_Lo-Res.pdf.

179 Darren Newbury, “Research Training in the Creative Arts and Design,” in *The Routledge Companion to Research in the Arts*, ed. Michael Biggs and Henrik Karlsson (Oxon; New York, NY: Routledge, 2011), 372.

180 Katy Macleod and Lin Holdridge, “Writing and the PhD in Fine Art,” in *The Routledge Companion to Research in the Arts*, ed. Michael Biggs and Henrik Karlsson (Oxon; New York, NY: Routledge, 2011), 364.

181 Lauren Redhead, interview.

institutions, resulting in differences at each institution and also a substantial duplication of work. The lack of cross-sector resources to draw upon creates a disparity between institutions with enough staff and resources to focus on the area and those without. In “A Pedagogy of Poiesis” (2011) researchers Carole Gray and Heather Delday explain that PhD candidates (with their supervisors) might “make their own pedagogic experience within the doctoral framework.”¹⁸² There have been moves toward sharing cross-sector advice and guidance in books such as *Methodologies for Practice Research: Approaches for Professional Doctorates* edited by Carol Costley and John Fulton (December 2018),¹⁸³ and the transnational *Advancing Supervision for Artist Research Doctorates* strategic partnership project (2018–2021).¹⁸⁴

- 1.3.2.5 The transdisciplinary nature of practice research can cause challenges for the disciplinary and departmental structures of PhD programmes in the academy in England (see 1.5.3 in this report). Chatzichristodoulou describes her experience of doing one of the earliest practice research PhDs, which she completed in 2010 at Goldsmiths, University of London: “The interdisciplinary nature and to some extent the practice nature of the PhD didn’t comfortably sit with drama. It did feel very much like I was, kind of, sticking out uncomfortably in many different ways.”¹⁸⁵
- 1.3.2.6 Hann sees much to be optimistic about in the outlook of practice research PhD students she is currently supervising. In a discussion about the questions of legitimacy facing PhD students in practice research, she observed: “They’re more worried about how you communicate these things, and having examples of that, [of] which there are now some.”¹⁸⁶ This account resonates with Persad’s experience in the GuildHE summer school for PhD students: “Increasingly though, we’ve seen more and more practice-research-based PhDs coming through the summer school. Those students are far better prepared to talk about what they do, to be confident about the fact that that is their method.”¹⁸⁷
- 1.3.2.7 As mentioned by some researchers we interviewed, there is a need for examples of diverse practice research outputs and glossaries of relevant terms to be shared across the field (for students, researchers and support professionals alike). For Hann, the PRAG-UK website is currently one of the only places to refer to,¹⁸⁸ whilst other interviewees mentioned the *Journal for Artistic Research* (JAR)¹⁸⁹ and the *Journal of Embodied Research* (JER)¹⁹⁰ as places to find current examples of practice research.

182 Carole Gray and Heather Delday, “A Pedagogy of Poiesis: Possible futures for ‘artistic’ practice-led doctoral research,” on Carole Gray’s personal website, 2011, accessed 1 December 2019, <http://carolegray.net/assets/a-pedagogy-of-poiesis.pdf>.

183 Carol Costley and John Fulton, *Methodologies for Practice Research: Approaches for Professional Doctorates* (Thousand Oaks, CA: SAGE Publications, 2018).

184 *Advancing Supervision for Artistic Research Doctorates* is developed in a transnational cooperation setting coordinated following the publication of the ELIA position paper “The Florence Principles on the Doctorate in the Arts.” The consortium comprises nine partner institutions and is coordinated by the Academy of Fine Arts Vienna. For more information see: “About,” Advancing Supervision for Artistic Research Doctorates, accessed 22 November 2020, <https://advancingsupervision.eu/about>.

185 Maria Chatzichristodoulou, interview.

186 Rachel Hann, interview.

187 Rachel Persad, interview.

188 Rachel Hann, interview.

189 *JAR (Journal for Artistic Research)*, accessed 24 November 2020, <https://www.jar-online.net>.

190 *JER (Journal of Embodied Research)*, accessed 24 November 2020, <https://jer.openlibhums.org>.

- 1.3.2.8 The structure of progression in the academy in England is such that attaining a PhD is actively encouraged, and in most cases vitally necessary to ensure career development. As there are currently very few pathways for professional practice doctorates, many professional practitioners feel a requirement to undertake practice research PhDs as part of their academic career (whether they feel a core research impetus to their practice or not). This scenario highlights the need for a rethink of how professional practice is supported within the academy, something that organisations like GuildHE¹⁹¹ are actively engaged in.¹⁹² As Nelson has proposed: “it might be that we need different senses of doctorates, so an artistic doctorate would be for a high level of practice whereas the PhD remained awarded for contribution to knowledge.”¹⁹³
- 1.3.2.9 Practice research PhDs provide both a bridge from professional practice to research culture, and an important impetus behind many developments in the field. Many practice research PhD students profess a frustration that the principles and techniques they adopt are not always reflected in the wider field of practice research, as Brown relays from a 2015 conference involving practice research PhD students: “we’re asked to adopt one set of principles as a new generation but they won’t adopt them when it comes to their work.”¹⁹⁴
- 1.3.2.10 We have found that there is a lack of clear guidance and resources for practice research PhDs in the English academy. A clear pathway toward avoiding duplication of work in this area would be the provision of guidance and resources on practice research PhDs, drawn from the vast array of in-depth knowledge that already exists in institutions. We recognise the need for such guidelines to be succinct, flexible, inclusive and regularly updated, allowing for novel practice research projects to emerge. A fundamental role for an independent practice research advisory body may be to issue recommended guidance and resources for practice research PhD study in England. We believe this will allow practice research PhD students and their supervisors to focus more clearly on the research, rather than on technical and structural concerns.

191 “GuildHE seeks to highlight the types of research, disciplines, and methodologies in which our members specialise and demonstrate excellence.” See: “Research and Innovation,” GuildHE, accessed 11 December 2019, <https://guildhe.ac.uk/research-innovation/>. They have also founded a research consortium for smaller and specialist universities and colleges. See: “GuildHE Research: The research consortium for smaller and specialist higher education institutions,” accessed 11 December 2019, <https://research.guildhe.ac.uk/>.

192 Many universities in England offer doctorates by professional practice, in a wide range of disciplines. Some examples at the time of writing include: Portsmouth University, University of East Anglia, University of Northampton, Coventry University, University of Kent and Liverpool John Moores University.

193 Robin Nelson, interview.

194 Bruce Brown, interview.

1.3.3 ASSESSMENT OF PRACTICE RESEARCH

- 1.3.3.1 Much of the urgency to describe the field of practice research and cohere its descriptors has arisen from the needs of research assessment, by bodies such as the Economic and Social Research Council (ESRC), Engineering and Physical Sciences Research Council (EPSRC), Arts and Humanities Research Council (AHRC), the Leverhulme Trust, the Wellcome Trust, Research Assessment Exercise (RAE) and Research Excellence Framework (REF). As Redhead observes, assessment culture affects some of what practice researchers do in the academy, and this is no different for researchers operating in the research field of empirical science: “There’s plenty of people doing fantastic science research in private companies that will never present it in the same way that university researchers do, for exactly the same reason.”¹⁹⁵ Academic assessment has brought practice research in focus in a number of ways, as Hill describes: “One, because of structures like the REF, that actually force us to ask questions like ‘what is the output of this activity?’ and also because there is a comparison made between different types of research within the academy.”¹⁹⁶ The UK’s nation-wide research assessment strategy, as represented by REF 2021, drives forward some of the key issues under discussion in the field of practice research, as Jane Boggan, Panel Adviser for Main Panel D for REF 2014 and REF 2021, notes.¹⁹⁷ These issues range from the cohesive formulation of practice research outputs, through file formats, research item types, the use of metrics in assessment of impact, and the long-term hosting and preservation of outputs.
- 1.3.3.2 Across the practice research community (as in many professional communities), we heard comments regarding the burdensome threat of assessment culture. Many practice researchers we spoke to feel that they are allocated insufficient time, support and resources to properly prepare their outputs for assessment frameworks. However, these same interviewees often expressed the positive benefit of research assessment, advocating for a new peer review system for practice research, something we explore in our second report *How can practice research be shared?*.
- 1.3.3.3 The requirements of academic research assessment have had a particular impact on the formulation of practice research outputs since 2000. Early assessment frameworks (RAE 2001) suggested the inclusion of 300-word clarifying statements, to be used when the research was not evidenced in practice.¹⁹⁸ Assessment criteria then began to allow for longer clarifying statements to be included, to be assessed if required (for example in REF 2014 and REF 2021). In seeking to clarify the nature of these research statements, many practice researchers have advocated for the creation of a broader ‘portfolio’ item type for practice research outputs, which may contain both cross-media documentation (as proxy for practice) and a research narrative (which may not necessarily be text-based or of strict length). This has been a vital and necessary step in the development of coherent, communicative and durable outputs for practice research. However, due to a lack of guidance surrounding the submission of portfolios for assessment, they have sometimes sprawled beyond a practical scope feasible for their intended audiences to usefully explore and share, in terms of scale, length, size and format.

195 Lauren Redhead, interview.

196 Steven Hill, interview.

197 “I think the REF does provide a good framework to drive some of the debates. Undoubtedly, there is a cost attached to that, but people need to feel that they are getting something out of it rather than playing to the exam. There has to be a QR return on that, so that’s probably where the commitment from Research England comes in. What does the sector get out of doing this well, beyond getting good REF results?” Jane Boggan, interview by the authors, 28 March 2019.

198 “Section III: Panels’ Criteria and Working Methods,” RAE 2001, accessed 11 December 2019, http://www.rae.ac.uk/2001/Pubs/5_99/ByUoA/crit67.htm.

- 1.3.3.4 Boggan notes that in the REF 2014 assessment, the use of the term ‘portfolio’ often led to a very mixed understanding of what was required by assessors: “the word ‘portfolio,’ without that really being properly unpacked, meant that they (assessors) got a lot of, art portfolios really, or a lot of stuff that wasn’t framed as research.”¹⁹⁹ In these reports, we have chosen not to use the term ‘portfolio’, instead employing the term ‘output’ to describe the outcome of practice research. Across our interviews we found that the term ‘portfolio’ proved problematic and exclusionary for those in disciplines where it is not a commonly used term, and it was often reported that its use can lead to an overemphasis on the practice component of a practice research output.
- 1.3.3.5 The guidance on terminology, structure and format provided to practice researchers by research assessment managers as part of benchmark assessments has an important and long-term impact across the field. If assessment criteria and related guidelines for practice research were improved, as Boggan observes, the field of practice research would offer a real opportunity to publication practice across other research fields: “the margins actually provide a model that could change publishing practice across academia if we get it right. There is a real kind of imaginative possibility here but it’s going to take a bit of work to get there.”²⁰⁰
- 1.3.3.6 There is a temporal difference between research funder schemes and quality-related (QR) research funding²⁰¹ derived from research assessments in the academy. Research funders generally base their funding upon a traditional linear trajectory to research, or what Cotterrell describes as: “a pre-definition of what you expect to achieve.”²⁰² However, quality-related and impact measuring research assessments such as REF allow the researcher to look back over what they have achieved, incorporating non-linearity, changes in methods and the emergence of a research impetus through practice over time. Arguably, as Cotterrell furthers, this is a more productive way for practice research to be funded and supported: “we discovered something quite extraordinary five years ago which we weren’t expecting, [...] we have the capability to actually trust people to get lost in a subject, search for the genuine commitment to it and then understand where the most valuable insights are.”²⁰³
- 1.3.3.7 Whilst research assessment has had some positive impact upon the field of practice research, it also provides a substantial workload for researchers, one that is not generally accounted for in contractual time allocation. Practice researchers are often simultaneously undertaking practice, creating documentation as a proxy for practice, and developing research narratives that communicate the impetus and findings of their work. Research contained in established output types such as a book or journal article is already bound and ready for submission to QR assessment frameworks such as the REF. Currently, for practice research outputs, most researchers develop their submissions especially for the REF (often having already created different versions of the same work for other applications, including in professional practice for funders such as Arts Council England).

199 Jane Boggan, interview.

200 Jane Boggan, interview.

201 UK Research and Innovation (UKRI) describe quality-related funding as follows: “The majority of our funds for research are distributed on the basis of research quality, and take into account the volume and relative cost of research in different areas. This is called ‘quality-related research [sic] (QR) funding. Quality is measured in a periodic exercise known as the Research Excellence Framework (REF) which we administer on behalf of all four devolved higher education funding bodies.” Research England, “Our Funding,” United Kingdom Research and Innovation, accessed 1 December 2019, <https://re.ukri.org/research/how-we-fund-research>.

202 David Cotterrell, interview.

203 David Cotterrell, interview.

- 1.3.3.8 Many HEIs across England do recognise the need to support practice researchers with the formulation of their research for research assessment. Institutions lend this support through mentoring, organising submission material, and providing technical support. Based on his experiences of multiple iterations of REF in different HEIs, Corby illustrates the importance of mentoring researchers in framing their research, showing how it serves the multiple purposes of both preparing for REF assessment and aiding in funding applications, as well as ensuring the posterity of the research projects outside of assessment frameworks.²⁰⁴ The importance of this mentoring-based, supportive, and collaborative approach to developing outputs for REF has been emphasised by many other interviewees including Brown, Cotterrell, Hodes and Nelson. There is a clear economic argument for this support, as Nelson explains: “we doubled Central’s income last submission, by being able to help frame the practice and research. We put in a bigger submission, including practice research but framing it well. [...] The idea that someone helps you understand what the research dimension of your work is and helps to frame it is perfectly legitimate.”²⁰⁵
- 1.3.3.9 The current extent of support for practice researchers is not standard across HEIs in England, resulting in a wide variance of support and resource at each institution. At Sheffield Hallam University, which has a history of providing support to practice researchers, a mentoring scheme acts as a bridge for professional practice to research culture, as Cotterrell notes: “at Hallam, that’s really done through mentoring. So, it cascades a series of mentoring. I was mentored, and then gradually found that I could argue effectively for the value of what I was doing, in those terms. I’d originally found the whole language, kind of, intimidating and foreign.”²⁰⁶ In many institutions however, it was reported that there was little or no support for practice researchers. Resourcing and support-networks should be developed across the sector, as Nelson observes: “some of the research income should be ploughed back into further investment [for supporting practice research at an institutional level].”²⁰⁷ An awareness of the needs of practice researchers by HEI research managers will play a crucial role in ensuring the success of practice research in institutional research assessments.
- 1.3.3.10 A term we came across repeatedly during our interviews was “the REF graveyard” coined by academic, critic and curator Maria Delgado to open debate around the issue of practice research and its assessment in the REF. Boggan describes this as follows: “the big problem is the REF graveyard, it’s just the amount of effort that went in, where it was done well, to produce this stuff and then it just goes. That’s clearly just a terrible waste.”²⁰⁸ Practice researchers and their institutions put vast amounts of effort and creativity into the collation and submission of practice research for the REF, only for the outputs to become inaccessible in any useful way for audiences beyond the REF assessment itself. Cotterrell notes how dispiriting the situation can be: “if you go through the REF 2014 website, we know that that site has a huge amount of extraordinary practice. It has seminal, important works. Possibly the best works of an artist’s life might have been captured during that census period, and all we’ve got is 300 words and some tags. There’s not even an image of the work. For sound work, there’s not a hint of it. [...] It’s like an entire lapse, it’s total abstraction of the work. [...] I think it’s a great loss.”²⁰⁹ This problem has multiple causes: those related to cohesive formulation, copyright and licensing, the preservation of multi-component assessment submissions online, and the fact that research assessment websites are often the only place a practice research output is hosted in its entirety.

204 Tom Corby, interview.

205 Robin Nelson, interview.

206 David Cotterrell, interview.

207 Robin Nelson, interview.

208 Jane Boggan, interview.

209 David Cotterrell, interview.

- 1.3.3.11 There are still relatively few avenues for the publication and dissemination of practice research outputs outside of research assessment frameworks. A book or a journal article submitted to REF is likely to already be available via publishers' websites (or institutional repositories through Open Access), and will contain metadata following agreed international standards — it will be preserved with a high possibility of long-term survival. For practice research, with few non-institutional publication opportunities, there is a great risk of the research becoming non-discoverable and inaccessible over time. We discuss this challenge in our second report *How can practice research be shared?*
- 1.3.3.12 Research assessment exercises such as the REF provide an important forum for the creation of guidance and recommendations for practice researchers. However, the requirements of research assessment in the academy are often defined by political and institutional agendas, and whilst the guidance issued within their frameworks is generally well-informed and developed in good faith, practice research as a field requires the collating and issuing of sector-wide guidance surrounding issues of language, terms and formats for practice research. There is much that can be learnt from how standards have been agreed in other research fields, frameworks and disciplines.²¹⁰
- 1.3.3.13 Institutional research assessment strategies such as REF, and research funders including UKRI councils, will likely develop further criteria, guidelines and frameworks surrounding practice research in the future. During our interviews, various ideas were proposed for improving the frameworks for assessing practice research in England. These included the idea of an ongoing process of assessment,²¹¹ the physical presence of the researcher in the assessment,²¹² and a more flexible and regularly updated approach to research item types and formats.²¹³ Assessment of practice research might happen at the beginning of a project (e.g. AHRC, EPSRC) or at the end state (e.g. REF, RAE). As a result, the nature of the support that practice researchers will require with these assessments will differ. What is clear however, is that through guidelines for describing and forming practice research, improved technical and preservation standards, and through increased advocacy for researcher and developer support, funders and researchers will be able to better focus their energies on the key aspects of practice research: the research inquiries, methods and narratives.

210 Examples include *Infoterm*, the International Information Centre for Terminology, which was founded in 1971 by contract with the United Nations Educational, Scientific and Cultural Organization (UNESCO), with the objective to support and co-ordinate international co-operation in the field of terminology. See: "International Information Centre for Terminology," accessed 10 December 2019, <http://www.infoterm.info/>. Other examples include the glossary of research ethics terminologies published by the United States National Institute of Environment Services. See: David B. Resnik, "Glossary of Commonly Used Terms in Research Ethics," United States National Institute of Environmental Health Sciences (NIEHS), May 2015, <https://www.niehs.nih.gov/research/resources/bioethics/glossary/index.cfm>.

211 David Harradine, interview.

212 Charlotte Hodes, interview.

213 Jane Pavitt, interview.

1.4 EXAMPLES OF PRACTICE RESEARCH

Key points from section

- There is a need for notable examples of practice research to be shared widely and coherently.
- Agreement on the formulation, formatting and metadata standards for practice research outputs will make it easier to share and cite practice research.

1.4.1 PROVIDING EXAMPLES OF PRACTICE RESEARCH

1.4.1.1 A common theme throughout our interviews was that it is imperative for the field of practice research to develop and share accessible examples of high-quality practice research outputs. By recognising and providing successful, innovative and provocative examples, researchers will be able to learn from and develop new ways of exploring areas such as methodological pluralism, documenting and portraying practice, and formation and structuring of research narratives. We note that there are many contemporary and historic examples of practice research that may not necessarily be identified as such. As Redhead observes: “Either they don’t identify as practice research because of the time period in which it was made or the context in which it was made, or because they identify research as being an institutional thing and they would distance themselves from that.”²¹⁴

1.4.1.2 When we asked each of our interviewees for links and recommendations for examples of practice research, we garnered fewer responses than we expected. This is not for lack of high-quality practice research taking place across the field, but instead indicated the unavailability of practice research outputs in accessible and shareable ways. Reasons that were mentioned for this were: effective ways of preserving practice research are underdeveloped in comparison to other research fields; mechanisms for aggregating and sharing research are an ill-fit for most practice research outputs.

1.4.1.3 Across the sector it was reported that libraries and archives are yet to contain many examples of practice research outputs, and those that have entered these repositories of knowledge are often hard to find, with inadequate metadata, poor formatting and general issues of cohesive formulation causing substantial challenges in their aggregation through the discovery tools used by researchers in the present day. A notable exception to this are practice research PhDs conducted by universities in the United Kingdom, where sustained cross-institutional collaborations and submission standards have ensured the preservation of almost all practice research PhD projects.²¹⁵ For practice research PhDs, the pioneering work of the British Library and their EThOS platform has enabled the hosting and standardisation of metadata and formatting, rendering the research projects

²¹⁴ Lauren Redhead, interview.

²¹⁵ British Library’s EThOS (Electronic Theses Online Service) is a national digital archive of PhDs completed in the UK. It showcases the UK’s PhD research and helps institutions comply with funders’ Open Access policies, which state publicly funded research should be publicly available. EThOS “aims to provide a national aggregated record of all doctoral theses awarded by UK Higher Education institutions and free access to the full text of as many theses as possible for use by all researchers to further their own research.” It offers on-demand digitisation for print PhD dissertations. Since June 2015, they have integrated into their systems persistent identifiers such as ORCID, ISNI and DOIs. See: “About EThOS,” EThOS – Electronic Theses Online Service, accessed 11 December 2019, <https://ethos.bl.uk/About.do>.

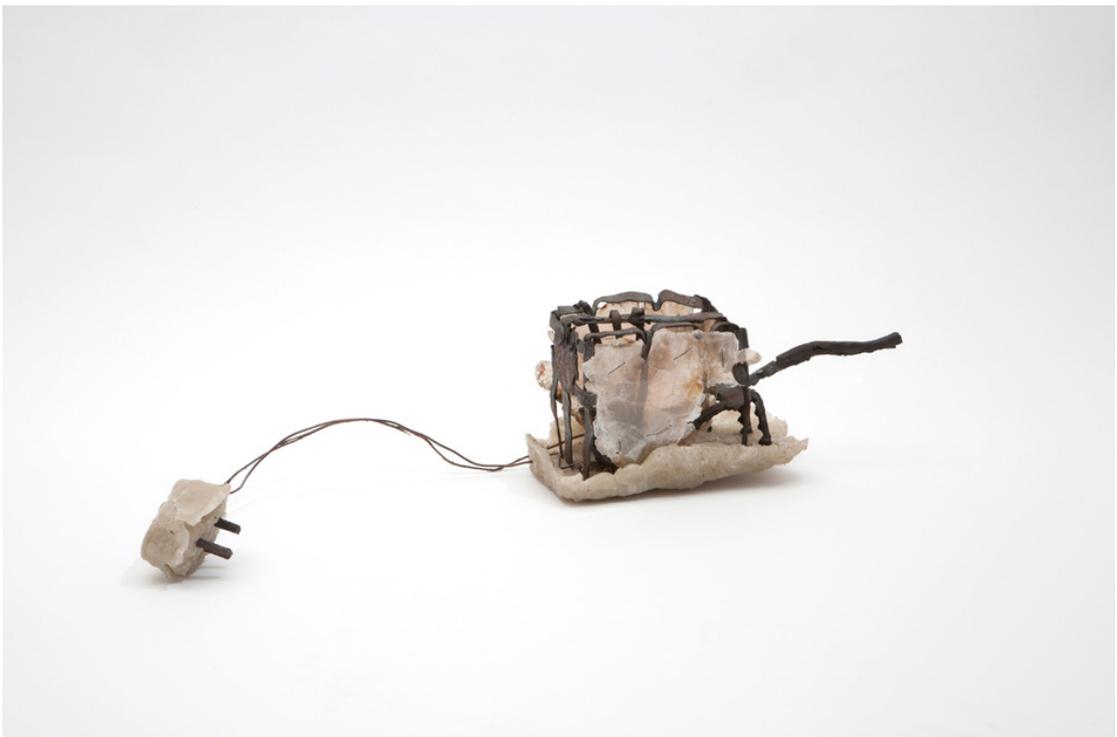
available for audiences globally and in perpetuity.²¹⁶ We explore this issue further on in this report, in 1.5.5 *The practice research archive*.

- 1.4.1.4 Lack of agreement on item types, formatting and metadata standards for practice research outputs poses significant and critical problems for sharing and citing practice research. Across the last two decades of practice research publication, many projects presented in digital formulation have included multiple separate components, sometimes across many file formats, which taken in totality form the whole practice research output (most commonly through documentation of practice alongside a research narrative). When disseminated online, these interrelated items have often been hosted in separate places (e.g. a personal practitioner website, an institutional repository, a commercial podcast service, a journal article hosted by a private publisher). Inexorably over time the components of the output become partially inaccessible, rendering it impossible to understand and effectively share the output wholly as intended. This problem, brought into focus with scenarios like the aforementioned ‘REF graveyard’ (see section 1.3.3.10 in this report), is a core challenge surrounding the preservation, sharing and citing of practice research. We explore this issue at length in our report *How can practice research be shared?* (see sections 2.5 and 2.6).
- 1.4.1.5 As with other fields of research, we note that issues of ethics, copyright and licensing can impact the effective sharing of practice research outputs, with some outputs only able to be shared in piecemeal form or under restricted access. In practice research particularly, with its close relation to professional practice, it was reported that practice components are often restricted by the licensing rules of the avenues where the practice was initially undertaken (for example in the film, fine art or music industries). It was also reported that there are substantial challenges in sharing practice publicly due to ethical concerns (for example in nursing, or in projects exploring loss and bereavement). Whilst these issues are common in other research fields, it is clear that guidance and support needs to be provided for practice researchers that encounter these challenges in sharing their work.
- 1.4.1.6 The most common avenues for practice research dissemination that were reported to us were entirely digital, and included institutional repositories, publisher websites, HEI websites (usually under departmental pages), and researcher-maintained project websites. The different components of these practice research outputs (commonly involving a research narrative alongside documentation of practice) were usually dispersed across multiple locations, including commercial video and sound hosting platforms, research repositories, blogs, and personal web pages. Based on these findings, we recognise the need to investigate a flexible collective item type for practice research outputs, and explore the issue in depth in our second report *How can practice research be shared?* (see section 2.2 *Item types for practice research*).
- 1.4.1.7 In the following section 1.4.2 *Examples of practice research* we provide a short selection of examples of practice research that were referenced within our interviews, highlighting the differing ways of undertaking practice research that they illustrate. We are conscious of how sparse a set this is, and of how much of the transdisciplinary nature of practice research this fails to represent. It would be an invaluable asset for the practice research community if in future there were an ongoing anthology series that conveyed the true transdisciplinary nature of practice research, with contemporary examples drawn from across the sector inspiring debate and discussion as the field continues to develop.

216 “EThOS aims to hold a record for all doctoral theses awarded by all UK universities (institutions). There are some gaps which we are gradually filling, but there is a record for at least 90% of all UK theses, some 500,000 records.” See: “Frequently Asked Questions,” EThOS – Electronic Theses Online Service, accessed 23 November 2020, <https://ethos.bl.uk/Faq.do>.

1.4.2 EXAMPLES OF PRACTICE RESEARCH

- 1.4.2.1 Thomas Thwaites' *Toaster Project* was referred to in our interview with Pavitt,²¹⁷ who described how Thwaites had developed the practice research project as part of his final show at the Royal College of Art (RCA) in 2009.²¹⁸ Thwaites was a student on the MA Design Interaction course at the RCA, and the project explores the seemingly straightforward question of how to make a toaster from scratch. Through exhibition and documentation of this practice alongside an accompanying book that lends a detailed research narrative,²¹⁹ Thwaites describes the complex multitude of methods he was forced to employ in practice, and the wide-reaching insight that this lent on consumerism and economies of scale in everyday life.



Photograph of toaster, as part of *The Toaster Project*. © Daniel Alexander.

217 Jane Pavitt, interview.

218 "The Toaster Project," Thomas Thwaites' personal website, accessed 11 December 2019, <https://www.thomasthwaites.com/the-toaster-project>.

219 Thomas Thwaites, *The Toaster Project: Or A Heroic Attempt to Build a Simple Electric Appliance from Scratch* (New York, NY: Princeton Architectural Press, 2011).

1.4.2.2 *Participatory City* is a transdisciplinary practice research project led by Tessy Britton at the Participatory City Foundation, which over the last nine years “has been developing a new research-based approach to building new systems for Practical Participation and societal Co-production.”²²⁰ In November 2017 Participatory City Foundation launched as a large-scale prototype *Every One Every Day*, a collaborative endeavour between the Foundation, residents in Barking and Dagenham in East London, and Barking and Dagenham Council, with support from a number of funding institutions.²²¹ The initiative follows on from a near decade-long research project on participation culture as a means to build sustainable urban neighbourhoods,²²² and is planned to run for five years. *Every One Every Day* looks at how citizens can transform their lives through everyday acts by providing support for community projects and community businesses, enabling skill sharing and creating social spaces. As well as in practice, the ways of knowing that emerge are also conveyed in research narrative reports hosted on the project website under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International license.²²³



Image still from the *Every One Every Day* project, © Participatory City Foundation, 2019.

- 220 “Open Invitation to Participate in a Transdisciplinary Study of the *Every One Every Day Initiative* in Barking and Dagenham,” Participatory City project, accessed 25 November 2020, <http://www.participatorycity.org/transdisciplinary-research-project>.
- 221 “Neighbourhoods made by everyone, for everyone,” Barking and Dagenham Council, accessed 25 November 2020, <https://www.lbbd.gov.uk/every-one-every-day>.
- 222 “Research History,” *Made to Measure – Year One Report for the Every Day One Day Initiative in Barking and Dagenham*, 94–97, accessed 25 November 2020, <http://www.participatorycity.org/made-to-measure>.
- 223 “Research,” Participatory City, accessed 25 November 2020, <http://www.participatorycity.org/research>.

1.4.2.3 *Forensic Architecture* (FA) is a research agency based at Goldsmiths, University of London, established in 2010. FA undertakes “advanced spatial and media investigations into cases of human rights violations, with and on behalf of communities affected by political violence, human rights organisations, international prosecutors, environmental justice groups, and media organisations.”²²⁴ The researchers at the agency have developed the emergent academic field “forensic architecture,” which engages with the production and presentation of architectural evidence within legal and political frameworks. Over the past five years, the group has been nominated for a number of awards, including the 2018 Turner Prize. Since its foundation in 2010, FA has undertaken a number of investigations that relate to airstrikes, sea, borders, chemical attacks, detention, disappearance, environmental violence, fire, forensic oceanography, heritage, land rights, migration and police violence. Their practice methods include 3D modelling, audio analysis, data mining, field work, geolocation, software development, machine learning, pattern analysis, photogrammetry, reenactment, remote sensing and situated testimony. FA’s practice research projects prove a particularly good example of both the transdisciplinary nature of practice research, the employ of a multiplicity of methods including practice research and qualitative and quantitative analysis, and the effective sharing of research narratives in non-traditional scenarios (through exhibition, film and virtual modelling).



Forensic Architecture, *The Grenfell Tower Fire investigation. Projection Mapping – 1*. Video footage of the fire is ‘motion tracked’, and mapped onto a wire-frame model of Grenfell Tower. © Forensic Architecture, 2019.

224 Forensic Architecture, “Investigations,” accessed 11 December 2019, <https://forensic-architecture.org/>.

1.4.2.4 *Genocide and Genre* is a practice research project conceived by Joshua Oppenheimer and developed in collaboration with Joram ten Brink from 2005. It was submitted as a REF Impact Case Study in 2014 by the University of Westminster where Oppenheimer and Brink were employed on research contracts.²²⁵ The project is an excellent example of how highly regarded professional practice (one element of the project, *The Act of Killing*, won the 2013 European Film Award for Best Documentary), can be concisely combined with a multi-faceted research narrative (two authored monographs and an impact statement on the REF 2014 website) to provide an impactful, highly detailed and effectively shared practice research output. Specifically, the project uses the practice of documentary film as the significant method for exploring the experiences of victims and survivors of the 1965–1966 massacres in Indonesia, as well as describing encounters with perpetrators. For Oppenheimer and Brink, “The key research insights of *Genocide and Genre* for which impact is claimed are the exploration of the behaviour of perpetrators of the Indonesian genocide through their re-enactment of their killings, often in genres familiar to them through their knowledge of Hollywood cinema, and the documentation of their status and views in current Indonesian society.”²²⁶



Scene from the documentary *The Act of Killing* (2012) © Joshua Oppenheimer 2012.

225 Joshua Oppenheimer and Joram ten Brink, “Genocide and Genre,” REF 2014 Impact Case Studies, accessed 11 December 2019, <https://impact.ref.ac.uk/casestudies/CaseStudy.aspx?Id=42134>.

226 Joshua Oppenheimer and Joram ten Brink, “Genocide and Genre.”

- 1.4.2.5 In our interview with Cotterrell²²⁷ he discussed his experiences working in collaboration with Imperial College’s Professor of Surgical Education and Engagement Science, Roger Kneebone,²²⁸ describing how Kneebone’s research propagated progressive, collaborative and transdisciplinary approaches to practice research. There are numerous examples of this in Kneebone’s publications, including a 2012 co-authored article with Professor Abigail Woods entitled “Bringing surgical history to life” published in the *British Medical Journal*,²²⁹ where the authors provide mixed-media documentation as proxy for practice conjoined with a research narrative that conveys their practice research inquiry: whether through simulation in practice it is possible to capture “not just past surgical techniques, but tacit and embodied behaviours, and social ways of working that elude capture by other means.”²³⁰



Lifelike appearance of cholecystectomy model © Roger Kneebone.

227 David Cotterrell, interview.

228 “Roger Kneebone staff page,” Imperial College London website, accessed 12 December 2019, <https://www.imperial.ac.uk/people/r.kneebone>.

229 Roger Kneebone and Abigail Woods, “Bringing Surgical History to Life,” *BMJ*(2012): 345:e8135. <https://doi.org/10.1136/bmj.e8135>.

230 Roger Kneebone and Abigail Woods, “Bringing Surgical History to Life,” 33.

1.4.2.6 When discussing examples of practice research outputs with Eve, who is co-chief executive officer alongside Dr Caroline Edwards of the Open Library of Humanities, he observed that some of the most interesting developments in the field of practice research are occurring in film studies. Eve cited the work of Catherine Grant at Birkbeck University as a clear example.²³¹ Grant's research explores what she terms the 'audiovisual essay,' where the practice of creating film is the method of instigating in-depth inquiries into aspects of film and television studies. Numerous examples of Grant's audiovisual essays can be found on her website.²³² In 2014, Grant co-founded *[in]Transition*,²³³ the first ever peer-reviewed journal of videographic film and moving image studies and an award-winning collaboration between MediaCommons and the Society for Cinema and Media Studies' official publication *Cinema Journal*. Amongst other things, Grant's prolific work illustrates how multimedia practice research outputs can cohere into singular item types and formats, with the application of metadata and Open Access licensing that allows for effective sharing. An example of this is her 2018 video essay *Screen Memories: A Video Essay on Smultronstället / Wild Strawberries*.²³⁴



Screen Memories: A Video Essay on Smultronstället / Wild Strawberries, Catherine Grant, © 2018

- 231 "Catherine Grant staff profile," Birkbeck, University of London, accessed 11 December 2019, <http://www.bbk.ac.uk/culture/staff/teaching-staff/catherine-grant>, page removed in August 2020. See: Catherine Grant's personal website, accessed 22 November 2020, <https://catherinegrant.org>.
- 232 Catherine Grant, "Publications on Videographic Criticism and the Audiovisual Essay," Catherine Grant's personal website, accessed 11 December 2019, <https://catherinegrant.org/publications-on-videographic-criticism-and-the-audiovisual-essay>.
- 233 "About [in]Transition," MediaCommons, accessed 11 December 2019, <http://mediacommons.org/intransition/about>.
- 234 Catherine Grant, "Screen Memories: A Video Essay on Smultronstället / Wild Strawberries," *Cinergie – Il Cinema E Le Altre Arti* 7, no. 13 (2018): 21–29. <https://doi.org/10.6092/issn.2280-9481/7914>.

1.5 ISSUES AND CHALLENGES

Key points from section

- Hierarchies of knowledge and discrepancies in funding create disadvantages for practice researchers, especially for those on fractional contracts in HEIs and independent researchers.
- Conversations about practice research ought to include the perspective of researchers outside of the academy.
- The lack of sector-wide guidance on core aspects of practice research is of particular disadvantage to smaller institutions and independent researchers.
- Ethics is an underexplored area of practice research and further reports need to be undertaken on it.
- Practice research outputs should be made accessible to those with access needs and neurodiversity.
- To create a legacy of practice research, outputs should be made accessible and discoverable for both present and future generations.

1.5.1 WHO GETS TO BE HEARD?

1.5.1.1 Existing hierarchies of knowledge within the academy in England tend to privilege more traditional and established fields of research, and this is reflected in a lack of funding and support for practice researchers. As Pavitt notes: “The moment you start to think about hierarchies of knowledge and the academy and professional practice, and its relationship to the academy, you then immediately start to come up against equality and diversity issues for recognising practice research.”²³⁵ These problems exist outside of the academy as well, as Persad explained in a discussion about the governing bodies and trustees of the research organisations which influence policymaking: “How diverse are they? Are any of them representing the needs and the kind of outlook of practice researchers?”²³⁶

1.5.1.2 We have found that there are issues of both gender and racial equality in the field of practice research, an issue we have sought to engage with by seeking out as diverse an array of interviewees and respondents as possible. Whilst some of these issues have been highlighted in the Equality and Diversity reviewing for recent REF assessments, problems of diversity and inclusivity exist across the entire field of practice research, not just those who are eligible for REF assessment. In September 2019 Paulette Williams, Sukhi Bath, Dr. Jason Arday and Chantelle Lewis co-authored a report²³⁷ for the Leading Routes initiative on the challenges facing Black PhD students in accessing Research Council funding. Another report “The white elephant in the room” from the

²³⁵ Jane Pavitt, interview.

²³⁶ Rachel Persad, interview.

²³⁷ Paulette Williams, Sukhi Bath, Dr Jason Arday and Chantelle Lewis, “The Broken Pipeline – Barriers to Black PhD Students Accessing Research Council Funding,” Leading Routes, September 2019, accessed 10 December 2019, <https://leadingroutes.org/mdocs-posts/the-broken-pipeline-barriers-to-black-students-accessing-research-council-funding>.

Higher Education Policy Institute, addresses the wider issues around racial inequality in HE and offers a road map of potential ways to reduce them.²³⁸ The field of practice research would benefit from a comprehensive review of its equality and diversity, as well as a roadmap for how issues in this area will be countered.

- 1.5.1.3 It has been highlighted in a number of our interviews that conversations surrounding practice research would benefit from the perspectives of researchers outside of the academy. These include independent research organisations (IROs),²³⁹ non-governmental organisations (NGOs), independent researchers, medical practitioners, art therapists and many more. Harradine summarises the problem of representation in the field: “everyone just makes an assumption that new knowledge, the generation of knowledge and innovation, is principally happening in these structures called universities and therefore those structures should be gatekeepers to money or resource which allows that generation of new knowledge or innovation to happen.”²⁴⁰ When the development of guidance, support networks and publication avenues for practice research involves researchers from outside of the academy, the field of practice research will yield richer and more insightful ways of knowing.
- 1.5.1.4 An important proportion of practice researchers in the academy are on fractional contracts (for example, on 0.2 contracts). This can be a result of personal time provision for professional practice, or because of teaching commitments or parity issues with other research areas in their institution. Practice researchers on fractional contracts find it difficult to maintain a balance between the teaching, research and administrative work that their jobs dictate. As a result, these practice researchers have little or no time to engage with crucial institutional and sector-wide discussions about guidelines, descriptors, assessment criteria and resources. These discussions often then become unintentionally dominated by policy-makers and research support professionals. Policy-makers, institutional managers and research support professionals need to develop strategies for engaging with all practice researchers, providing time and financial support to create forums for exploring the issues that arise in practice research, consulting with researchers on sector-wide guidance, advocacy strategies and future developments.
- 1.5.1.5 As a field with a transdisciplinary nature, whose method is applicable across and beyond disciplines, the discussion and development of practice research ought to include as wide and diverse an array of researchers and support professionals as possible. As we have noted previously in this report (see 1.1.2.1), much of the initial debates and developments have arisen within arts, theatre, social work and design, but we have found practice research taking place across disciplines (and beyond), and care needs to be taken to ensure that those who sit around the table to develop future guidance and support strategies truly represent this.
- 1.5.1.6 Practice research can challenge the barriers that stem from the hierarchisation of knowledge. In the academy these assumed hierarchies are those that led Borgdorff to title his 2012 book on artistic research *The Conflict of the Faculties*. Borgdorff’s title draws inspiration from Immanuel Kant’s pamphlet of the same title in 1798, in which: “he urged an end to the subordination of the ‘lower

238 Hugo Dale-Rivas, ed., “The white elephant in the room: ideas for reducing racial inequalities in higher education,” Higher Education Policy Institute, September 2019, https://www.hepi.ac.uk/wp-content/uploads/2019/09/HEPI_The-white-elephant-in-the-room_Report-120-FINAL-EMBAROED-19.09.19.pdf.

239 For a list of IROs eligible for UKRI funding, see “Eligible Independent Research Organisations,” UK Research and Innovation, accessed 24 November 2020, <https://www.ukri.org/apply-for-funding/before-you-apply/check-if-you-are-eligible-for-research-and-innovation-funding/eligible-independent-research-organisations/#contents-list>.

240 David Harradine, interview.

faculties' in the universities to the 'higher faculties.'"²⁴¹ Unless assumptions around the superiority of knowledge in specific disciplines (and research fields) are overcome, much of the energy that exists in the field of practice research will remain channeled toward a justification of its positioning, drawing resources away from driving the novel and radical ways of knowing that practice researchers create.

- 1.5.1.7 We have heard that questions of legitimacy from other research disciplines have been encountered by practice researchers, and these have both social and technical roots, as Eve observes.²⁴² Socially, issues arise because of the pressing need for standards and descriptors, so that those outside of the field clearly understand its constitution and aims. Technically, issues arise through the lack of long-term availability of practice research outputs, and the challenges of effectively sharing them. Many of these technical problems relate both to the paucity of platforms and tools for dissemination, and to the need for agreed standards for formulation, formatting (such as file types and metadata) and peer review. We focus on the technical dimensions of how practice research is shared in our second report *How can practice research be shared?* (see sections 2.3 and 2.4).
- 1.5.1.8 The most important step toward ensuring the diversity and inclusivity of voices in conversations about practice research, as we heard across the array of interviews, questionnaires and surveys that we undertook, is the proper resourcing of an independent practice research advisory body, which can: advocate for practice researchers across national and institutional frameworks; issue guidance and support to researchers, university senior managers, research support professionals, policymakers and research organisations outside of academia; ensure that those that make the decisions surrounding these guidance and advocacy strategies are truly representative of its community.

241 Henk Borgdorff, *The Conflict of the Faculties: Perspectives on Artistic Research and Academia* (Leiden: Leiden University Press, 2012), 25.

242 Martin Paul Eve, interview.

1.5.2 PROFESSIONAL PRACTICE AND PRACTICE RESEARCH

- 1.5.2.1 There is a critical issue at the heart of practice research in the academy: the relationship between professional practice and practice research. Professional practice need not always become practice research, and both areas are vital for a healthy and prospering higher education environment. Arising from a perceived lack of support for professional practice within the academy in England, we heard time and time again from our interviewees that practitioners felt that they needed to ‘frame’ their work as practice research in order to gain time and support for it. This is a situation that can result in poor quality research outputs, aiding neither practitioner, institution, nor the field of practice research as a whole.
- 1.5.2.2 The QR incentives of research assessments such as the REF can exacerbate this situation, as Hill describes: “I think there’s a really interesting debate surrounding the idea that not all practice is research, and I think that is an honest debate. If someone is a composer, and they want to say, ‘There is no research in what I do, it’s a creative activity, I produce music and that’s what I do,’ well that’s fine, but let’s not try and squeeze that into a research box if that practitioner doesn’t think that what they do is research. And I think the REF is unhelpful in that because it does kind of encourage institutions to try and squeeze everybody into that research box.”²⁴³ For Hodes, the foregrounding of research over practice in the academy also raises workload challenges: “a lot of practitioners foreground their research papers, so their research papers are an articulation of their practice and what’s submitted as an output is their research paper. And that means that there’s a double done workload, so I think that’s very difficult.”²⁴⁴
- 1.5.2.3 For many professional practitioners operating in academia, as artist and educator Jon Thompson notes, their response to this state of affairs has been a “meek acceptance,”²⁴⁵ finding their case for the support of professional practice in its own right swallowed under the funding and policy schemes of research bodies. This has caused a situation where, as Nelson notes: “there’s quite a lot of anxiety amongst staff, as to whether their work constitutes research or not.”²⁴⁶ As Brown signals: “I think both should be recognised and rewarded equally in their domains and I think some things can be both.”²⁴⁷ For the field of practice research to create cogent and progressive results, it is necessary for its advocates to recognise the need for support for professional practice, and to provide guidance that aids in bridging professional practice and practice research.
- 1.5.2.4 The manner in which funding is set up in the academy in England lends further difficulty to achieving balanced support for both professional practice and practice research. In our discussion with Corby, he noted that there is no money that comes from government solely for professional practice in universities: “we’re stuck in these transactional systems”²⁴⁸ where those who might wish to purely focus on professional practice and related scholarship, sharing it through teaching, are encouraged through lack of funding and support for their practice in the institution, to create practice research, often when research creation is inappropriate for their particular aims

243 Steven Hill, interview.

244 Charlotte Hodes, interview.

245 Jon Thompson, “Art education: from Coldstream to QAA,” *Critical Quarterly* 47, no. 1–2 (2005): 224. <https://doi.org/10.1111/j.0011-1562.2005.00641.x>.

246 Robin Nelson, interview.

247 Bruce Brown, interview.

248 Tom Corby, interview.

and objectives. As Corby explains: “For a long time now, we haven’t given time to practitioners if they’re not practice-based researchers, because we can’t afford to, the same as everybody else.”²⁴⁹

- 1.5.2.5 Professional practice is a cornerstone of practice research. It often goes unrecognised that many practice researchers have a professional practice that sits separately but alongside their practice research (often outside of academically contracted time). These professional practices define practice research projects, whether it be in documentary film, climate analysis or nursing. As Hill observes: “people quite often have careers in disciplinary areas, where they’re partly in the academy and partly freelance, or solely practitioners. I think that is true across the arts disciplines and it’s true in some of the health-related disciplines, where people will have professional practice which they will use as part of their academic research, but it’s an independent professional practice activity.”²⁵⁰ The hybrid nature of practice research, and the ongoing balancing act of professional practice, research and multiple methods is one to be lauded.
- 1.5.2.6 There are examples of academic institutions in England where a balance of practice research and professional practice has emerged, where professional practice has found equal support to practice research and research more broadly. An example of this is at the Royal Central School of Speech and Drama, where by flexible use of scholarship and teaching pathways academics are supported in their professional practice, with no requirement for research, whilst if professional practitioners wish, they are supported to become practice researchers, with requirement for creating and sharing practice research outputs. Harradine explains: “that person [a practitioner] is supported equally in terms of all the institutional framework and support as this person over here who is an artist researcher.”²⁵¹
- 1.5.2.7 In a similar vein, as Pavitt reports, Kingston University is piloting a programme to endorse professional practice roles where research is not part of the institutional contract.²⁵² Chatzichristodoulou also suggests other ways in which the academy can promote and nurture professional practice, such as granting staff leave and flexible time to dedicate to their professional practice.²⁵³
- 1.5.2.8 GuildHE is a formal representative body for UK higher education policy that has recognised the importance of professional practice within England. In 2016 they published a report entitled *The Economic Value of Creative Focused Universities and Colleges*²⁵⁴ which clearly demonstrated the scholarly, economic and social benefits of supporting creative practice within the academy. The provision of adequate support for professional practice enriches the field of practice research. As Hill remarks: “It is time to have an honest conversation”²⁵⁵ about the relationship between professional practice and practice research within the academy, and it is perhaps the time for UK higher education institutions to conduct an in-depth review of their researchers’ needs with the aim of more adequately supporting practice within the academy.

249 Tom Corby, interview.

250 Steven Hill, interview.

251 David Harradine, interview.

252 Jane Pavitt, interview.

253 Maria Chatzichristodoulou, interview.

254 GuildHE, “The Economic Value of Creative Focused Universities and Colleges,” November 2016, accessed 10 December 2019, <https://www.guildhe.ac.uk/wp-content/uploads/2016/11/Econ-Impact-Executive-Summary-Final.pdf>.

255 Steven Hill, interview.

1.5.3 INSTITUTIONAL SUPPORT FOR PRACTICE RESEARCH

- 1.5.3.1 From our interviews, we found that many practice researchers feel that there is a lack of institutional awareness of the different support structures and resources required by practice research in comparison to other types of research, and this situation creates a disadvantage for practice researchers. Harradine sums this sentiment up: “it’s not a level playing field. I have to be a good researcher, I have to be a good practitioner, I have to be a good practice researcher. Totally separately from that, I have to be good at translating my research for you so that you can see it as research five, six, seven, eight, nine years down the line.”²⁵⁶
- 1.5.3.2 Within these reports, when we use the term “institution” we do not mean solely bodies within the academy. Practice research goes on outside of the academic realm, as Reimer points out: “considering only the higher education institutions is probably too narrow because you will leave out a not insignificant number of people who would consider themselves to be part of the community.”²⁵⁷ This community includes IROs, NGOs, policymaking organisations, funding organisations and the various independent bodies outside of the academy that nurture, develop and sustain the field of practice research.
- 1.5.3.3 As we heard from Chatzichristodoulou, Cotterrell, Redhead and others, in the early stages of an academic career the transition from professional practitioner to practice researcher often requires one-on-one support from both mentors and peers, not just in the undertaking of practice research itself, but also with the effective sharing, long-term preservation and requirements for research assessment. Institutions can acknowledge and address this through a systematic rethink of the support networks that exist, ensuring that each researcher’s needs are adequately met. As Corby observes, it is possible to “get people working very quickly by giving them very, very clear guidance about it.”²⁵⁸ As the Pro-Vice Chancellor for Research at Brighton University, Brown set up structures that gave research and development opportunities to practice researchers, as well as appointing people who specialised in working collaboratively with researchers to explore and extrapolate the underpinning arguments of their practice research.²⁵⁹ Mentoring and workshops led by experienced colleagues are proven to be particularly effective, especially if they are designed to be an ongoing part of institutional research culture.²⁶⁰

256 David Harradine, interview.

257 Torsten Reimer, interview.

258 Tom Corby, interview.

259 Bruce Brown, interview.

260 Corby describes this as part of his role at the University of the Arts, London: “There are top down and bottom up requirements. One is clear models: ‘What is this that will help us articulate what we’re doing in research terms?’ On the ground you have to have people that are prepared to put the time in to mentor people and put structures in place. Here I do one-to-one sessions, I have a surgery session every other Monday where staff come to me and they talk to me about that work. I also do workshops throughout the year about ‘What is practice-based research? How do I get involved? How do I talk about my work in terms of research?’ There’s the on the ground stuff and there’s the higher-level subject area discussions, guidelines and models to make available to people.” Tom Corby, interview.

- 1.5.3.4 Institutional support and guidance in formulating research narratives for practice research is a critical requirement for bridging professional practice and practice research. As the overview report by Main Panel D [Arts and Humanities] for REF 2014 states: “HEIs can do much more to assist excellent practitioners who move into the academy to make the transition in developing the research articulation of their work.”²⁶¹
- 1.5.3.5 One-on-one mentoring and group workshop sessions help practitioners to explore practice as a method in their research, aiding in developing effective research narratives, highlighting options for formulating research outputs (as well as publication routes) and offering documentation techniques that most appositely act as proxy for practice where required. As Cotterrell describes, for these mechanisms to be successful in the academy, they need to proceed from the institutional and cross-sector understanding that practice research has parity with all other research fields: “At Sheffield Hallam, there is an assumption that artists and designers are intellectually driven; that there is enquiry and rigour in what we’re doing. The process then is to try to work out what enquiry you can legitimately claim in that work, rather than having to change the work to fit within the system.”²⁶²
- 1.5.3.6 To ensure the success of practice research, further support and guidance needs to be developed regarding applications to research funding bodies such as the EPSRC, the Wellcome Trust or AHRC. Practice researchers often face unique challenges when making funding applications to these organisations, in seeking to articulate a research process which may include methodological pluralism and where crucial aspects may very well emerge and change in practice, during the project itself. This unpredictability often creates a confusion in how to define stages for their research process in applications. As Crossick observes, this problem is not unique to practice research: “reaching the point where something as substantial as the human genome project was launched involved a great deal of chance, improvisation and unpredictable elements.”²⁶³
- 1.5.3.7 Across our interviews, it was generally observed that there is inadequate funding for practice research available from research councils, even in disciplinary areas where practice research is currently prevalent.²⁶⁴ There is a need for institutional representatives to advocate for this to be addressed. Furthermore, it is felt that those funding bodies that do support the disciplines where practice research is prevalent are under-resourced, as Redhead describes: “AHRC versus all the other research councils has the least amount of money and gets the most number of articles for that money. [...] So, it’s the most oversubscribed and yet the least well-resourced area of research thought.”²⁶⁵ Even in the case of the AHRC, a number of interviewees felt that funding was rarely allocated to practice research, and respondents believed that more traditional types of research were most likely to be funded.

261 “Research Excellence Framework 2014: Overview report by Main Panel D and Sub-panels 27 to 36,” p. 100, accessed 24 November 2020, <https://www.ref.ac.uk/2014/media/ref/content/expanel/member/Main%20Panel%20D%20overview%20report.pdf>.

262 David Cotterrell, interview.

263 Geoffrey Crossick, interview.

264 One particular funding scheme which was mentioned in a number of interviews as a good example of appropriate funding for practice (with the result of enriching practice research), was the AHRC Creative Fellowship scheme, which ran until the mid-2000s.

265 Lauren Redhead, interview.

- 1.5.3.8 Persad states that practice research representatives can be instrumental in pushing the agenda for research funding allocation, for example, through consultation processes: “This is a community of practice. Why doesn’t the funder approach them and let them set the pointers, the areas of value that they see, and get the answers from them, rather than going top down?”²⁶⁶
- 1.5.3.9 Many traditional research fields are adept at securing continuity of research project funding, particularly in scientific research, as Crossick observes.²⁶⁷ Institutions need to both support practice researchers in navigating funder requirements, and advocate to funders for development of their submission frameworks and criteria so that they encompass the needs of a field where methods are not necessarily fixed or linear, and where continuity of funding would be of huge benefit. As Chow observes, there are also other ways that institutions can ensure continuity of funding for practice researchers, using traditional models of research sabbaticals and conference funding schemes.²⁶⁸
- 1.5.3.10 Institutional guidance and provision for practice researchers on methods should be both broad and bespoke. As Spatz notes, institutions may work with guidance to provide sufficient research training on practice methods and methodological pluralism so that methods can be appropriately and adaptively employed over the course of a research project.²⁶⁹ Without this training, practice researchers may fall into a trap that Corby describes, where they change their practice in order to fit into more established types of research, rather than articulating their inquiry through practice research.²⁷⁰
- 1.5.3.11 Coherent cross-sector guidance ensures that smaller institutions are not disadvantaged when it comes to supporting practice research. There are concerns that the institutional support provision available for practice research, which could include editorial support, graphic design and formatting, can result in uneven judgements of practice research outputs in research assessments. As Redhead observes: “I think there’s the potential for things to look very beguiling and for that to be persuasive. That’s something that many people worry about. X university has paid this wonderful designer to make everything look beautiful, and that now means maybe people may think their research is better than that of this university which can’t afford to do that.”²⁷¹ Cross-sector guidance, according to Redhead, would help to remedy this and will assist many practice researchers when making funding bids with little or no institutional support.²⁷²
- 1.5.3.12 According to a number of the research support professionals that we interviewed, the provision of technologies, systems and software to support practice research creation and dissemination in institutions in England has lost much of the momentum and support present in the early 2000s. This, according to Reimer, might be attributed to how in recent years institutions have been more driven by funder policies than a focus on encouraging wider accessibility to research. Organisations like Jisc²⁷³ previously supported a number of projects that developed technologies for the sharing of practice research outputs, but these programmes have not continued. We explore

266 Rachel Persad, interview.

267 Geoffrey Crossick, interview.

268 Broderick Chow, interview.

269 Ben Spatz, interview.

270 Tom Corby, interview.

271 Lauren Redhead, interview.

272 Lauren Redhead, interview.

273 Jisc defines itself as “the UK higher, further education and skills sectors’ not-for-profit organisation for digital services and solutions.” It has used “Jisc” as its name since 2012. Previously JISC was an abbreviation that stood for “Joint Information Systems Committee.” See: Jisc website, accessed 1 October 2019, <https://www.jisc.ac.uk>.

the numerous challenges that still exist surrounding the use of institutional repositories for sharing practice research in our second report *How can practice research be shared?* (see 2.5.2 *Institutional repositories*). Guidelines and technologies that surround practice research and institutional repositories need to be made as widely accessible as possible, which will also support the work of independent researchers engaged in practice research who are not connected to HEIs.

1.5.4 THE ETHICS OF ACCESSIBLE PRACTICE RESEARCH

- 1.5.4.1 From the interviews and research that we undertook for this report, three differing but often interrelated areas of ethical concerns arose: accessibility to research outputs for those with disabilities or neurodiversity; Open Access,²⁷⁴ intellectual property and practice research; and collaborative ethics. Whilst we consider that the field of practice research contains many more ethical dilemmas, we highlight only these three areas here, offering the consideration that the proper resourcing of an independent practice research advisory body may in future be able to guide and support further reporting into the ethical challenges of the field.
- 1.5.4.2 As Persad points out, there has been a “dearth of actual policy that thinks about accessibility and diversity”²⁷⁵ even though there are pressing practical challenges around the accessibility of practice research. Non-text formulations of research narrative and practice can present challenges for those with access needs. For example, a video acting as a proxy for practice, or a film research narrative may not be accessible for the visually impaired without a screen-readable transcript. A recorded audio conversation as part of a research output may be inaccessible to deaf audiences without a transcription or further appropriate context. To address this problem, care has to be taken to provide adequate descriptive texts for multimedia content and transcriptions should be provided where possible. These ought to be presented in a manner that is suitable for screen-readers and other assistive technologies.
- 1.5.4.3 Open Access drastically reduces barriers for accessing research.²⁷⁶ With fewer logins, open platforms can be said to be more accessible for visually impaired users.²⁷⁷ Reducing financial barriers expands global audiences, including those who do not have institutional access to often prohibitively expensive research databases. Boggan describes how an Open Access model for practice research would be highly beneficial in terms of public access, encouraging citizen research and breaking down boundaries between academic and non-academic audiences: “That’s a revolution that’s down the road and there’s an immediate, practical issue. Make it work locally and provide a framework that’s sufficiently flexible and adaptable that incrementally will be picked up.”²⁷⁸
- 1.5.4.4 Proposing an Open Access model for practice research raises challenges surrounding copyright, intellectual property and Creative Commons licensing. Practice research often makes use of multimedia documentation which can have particularly complex copyright and licensing implications. Furthermore, due to a scarcity of publication platforms for practice research, advice and guidance on licensing is often left up to researchers, who then may have to decide by themselves how to license complex joint-authored and collaborative material. As well as general advice and guidance on these areas, we also recommend the creation of a guide similar to the Open Access Publishing in European Networks (OAPEN) Project’s “Guide to Creative Commons for Humanities and Social Science Monograph Authors,” which can be seen as a model for what is required for practice researchers.²⁷⁹

274 See 2.6.6 *Open Access* in our report *How can practice research be shared?*

275 Rachel Persad, interview.

276 In addition, Open Access also has significant impact on how we perceive libraries and re-think the means of access. See: Anja Oberländer and Torsten Reimer, eds. *Open Access and the Library* (Basel: MDPI, 2019). <https://www.mdpi.com/books/pdfview/book/1211>.

277 Jisc accessibility and inclusion, “Open access resources (OERs) and accessibility,” Jisc involve (blog), 24 October 2017, <https://accessibility.jiscinvolve.org/wp/2017/10/24/open-access>.

278 Jane Boggan, interview.

279 James Baker, Martin Paul Eve, and Ernesto Priego, eds., *Guide to Creative Commons for Humanities and Social Sciences Monograph Authors* (OAPEN-UK Project, 2013), <https://oapen.fra1.digitaloceanspaces.com/01f92ea3858c4e84aa317d3d0e52b676.pdf>

- 1.5.4.5 The entwined relation of professional practice and practice research can also raise ethical challenges for making the entirety of a practice research output Open Access. As Adewole observes: “How do you protect the livelihood of academics, who are increasingly self-employed [visiting lecturers] or casualised, or part-time? [...] If their artistic output is Open-Access or owned by the institution that is distributing it, what happens?”²⁸⁰ As professional practice is often funded outside of the institution, its dissemination within practice research outputs can cause adverse economic and intellectual property issues for practice researchers. Whilst exploring this area in detail is outside of these reports, it is important that further investigation into these issues is undertaken.
- 1.5.4.6 An Open Access model for practice research recognises that the majority of practice research projects are developed with public research funding and sometimes involve collaboration with community groups. It is a model that shares this research freely with the general public. By contrast, in privatised publication models, copyright and licensing requirements restrict the effective sharing of research. The field of practice research can avoid these restrictions by establishing support and guidance for Open Access platforms, which will enable the ethical sharing of practice research.
- 1.5.4.7 As Chow notes,²⁸¹ it is sometimes the case that practice researchers do not consider the ethical implications of human participants in practice research projects. Chow has found in undertaking his own practice research projects that training in methods from social sciences and qualitative research has been valuable, and allowed him to properly consider the ethical implications of his research.
- 1.5.4.8 For both Hann and Chow accurately detailing collaboration and participants in practice research projects is a vital aspect in forming ethical research. As Hann observes, this can be as simple as “ensuring that where people have been involved in the production of these things, that they are cited and they are mentioned.”²⁸² As was remarked in conversation with Hann, attributing collaborators and participants in research outputs are by no means exclusive issues to practice research, there is a wealth of guidance and standards to be found across research assessments such as REF 2021,²⁸³ and more broadly within traditional research fields.
- 1.5.4.9 One of the reasons that not all professional practice can become practice research, and that a conjoined research narrative is often deployed in a practice research project, relates to the ethics of practice, as Redhead describes: “Practitioner research in education and in healthcare is obviously really important. However, can nursing practice be a form of research in and of itself and can it disseminate that research? Clearly it can’t, because there are many ethical issues around what that would mean.”²⁸⁴ This is echoed by Moncrieffe, who emphasises the need for ethical standards and guidelines in forensic science practice research that matches those in other research fields.²⁸⁵ As Persad has suggested there is a significant amount of further work to be done with regards to ethics and integrity in the field.²⁸⁶

280 ‘Funmi Adewole, interview.

281 Broderick Chow, interview.

282 Rachel Hann, interview.

283 The guidance for the REF 2021 submission asks for the researcher to identify collaborators and detail their role in the process. See: “Panel criteria and working methods, paragraphs 216–236,” REF 2021, accessed 29 November 2020, https://www.ref.ac.uk/media/1450/ref-2019_02-panel-criteria-and-working-methods.pdf.

284 Lauren Redhead, interview.

285 Danielle Moncrieffe, interview.

286 Rachel Persad, interview.

- 1.5.4.10 The ethics of practice, both inside and outside of the field of practice research, need thorough discussion and debate. Practice researchers will benefit from support frameworks that provide advice and guidance on the ethical aspects of practice research projects. Areas which merit consideration include, but are not limited to, working with vulnerable groups, working with sensitive themes such as loss and trauma, experiments involving human and non-human subjects, and physical and mental health considerations.²⁸⁷ In forming the guidance and standards for ethical practice research, there is much to be learnt from the protocols already established in other research fields, particularly the social sciences, as Bernard observes: “I don’t necessarily see it as any different to doing an ordinary traditional piece of research where you go through the ethical approval process.”²⁸⁸

287 For further thoughts on collaborative ethics in the context of practice research, see Christopher Bannerman and Cahal McLaughlin, “Collaborative Ethics in Practice-as-Research,” in *Practice-as-Research in Performance and Screen*, ed. Ludivine Allegue, Simon Jones, Baz Kershaw, Angela Piccini (Basingstoke: Palgrave Macmillan, 2009), 64-80.

288 Claudia Bernard, interview.

1.5.5 THE PRACTICE RESEARCH ARCHIVE

- 1.5.5.1. The question of whether long-term survival by accessioning into the ‘archive’²⁸⁹ is intrinsic to the success of a practice research output is one that was debated in our interviews. Within practice research the concept of urgency and fragility may in fact be a core impetus behind the research, as Harradine explains: “To me practice research is the temporary. It doesn’t necessarily have a durable form because it doesn’t want to claim that it has arrived at the end, it can’t arrive at the end point of something and go, ‘Okay, here is a framework that I can pass onto you, which you can work with or you can use in 30 years’ time to understand that was happening 30 years ago.’ That is not particularly useful in terms of what research is for, for me. What research is for, for me, is the opportunity and the dialogue with actual people in actual real places, about actual questions that are actually urgent for them. Urgency isn’t durable because what’s urgent today will not be urgent next year.”²⁹⁰
- 1.5.5.2 Many other practice researchers we spoke to felt that their research ought to contribute to the archive, expanding and sharing their findings in durable formats through research networks. For Moncrieffe, the durable and effective sharing of research can prevent repetition which often wastes time and important resources.²⁹¹ For Hann, effective sharing benefits future generations: “to just find ways of not forgetting that these projects happened and that they can be cited in books, and in articles in the future, with researchers who maybe haven’t even been born yet.”²⁹²
- 1.5.5.3 For Brown, the legacy of a practice research output is not solely the project itself, but also that it provides contextual references and pathways outwards from the research: “it is the tip of the iceberg, it’s got to have all of the things in there that you need to know but it’s not a life history of the research, it’s not everything. What you then give is references where [...] if anybody is interested in following it up, they can either go to that other source or they can go here and they could go there.”²⁹³
- 1.5.5.4 Whilst practice research is predominantly now published in digital formats, physical or non-digital formats for research outputs can be the most appropriate for sharing research in certain cases. Examples may include participatory research on sensory engagement, research for audiences that do not have access to computers, and research formats for specific access needs such as the visually impaired. This is an underexplored area of practice research as a field, and more research needs to be done regarding research outputs whose sharing necessitates physical or non-digital materials.
- 1.5.5.5 Documentation as a proxy for practice in practice research outputs can cause logistical issues and economic challenges for preservation in the archive. Chatzichristodoulou describes how her curatorial practice research projects are often delivered in highly collaborative environments, calling for complex cross-media techniques in their documentation, which in turn creates technical challenges for the long-term preservation of these components.²⁹⁴

289 In this context, we use the term “archive” as an organised collection where research can be discovered, accessed and preserved in the long term through the adoption of appropriate standards, such as unique identifiers. This term was often used by our interviewees to describe the collection of shared and accessible practice research outputs across the field.

290 David Harradine, interview.

291 Danielle Moncrieffe, interview.

292 Rachel Hann, interview.

293 Bruce Brown, interview.

294 Maria Chatzichristodoulou, interview.

- 1.5.5.6 Many of the challenges that arise when entering practice research into archival systems (that ensure long-term preservation and accessibility to research) stem from the formulation and formatting of practice research outputs. We discuss the challenges of preserving and storing practice research in detail in our second report *How can practice research be shared?* (see sections 2.3 and 2.6), where we investigate structure, formatting and metadata standards, as well as preservation strategies such as the Internet Archive, LOCKSS and CLOCKSS,²⁹⁵ and the hosting of practice research in institutional and national research repositories.

²⁹⁵ LOCKSS (Lots of Copies Keep Stuff Safe), an initiative of Stanford Libraries, is a preservation technology aiming to ensure persistence of digital information. See: “What is LOCKSS?” accessed 11 December 2019, <https://www.lockss.org/about/what-lockss>. CLOCKSS (Controlled LOCKSS) is a platform that provides a dark archive to preserve digital scholarly content. See: CLOCKSS website, accessed 11 December 2019, <https://clockss.org>.

1.6 CONCLUSIONS

Across this report we have explored the question ‘what is practice research?’ through interviews, questionnaire and survey responses, and a literature review. From each of the sections in the report we draw together here the key points that have emerged:

- 1.6.1 Practice research is when practice is the significant method of research, conveyed in a research output. As a research field that embraces methodological pluralism, practice research affords new opportunities to effectively share intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing (see 1.1).
- 1.6.2 Practice research exhibits a transdisciplinary nature: its researchers operate across and beyond disciplinary frameworks and it occurs both inside and outside of institutions (see 1.1.5).
- 1.6.3 In many practice research outputs a distinct ‘research narrative’ conjoined with practice is important. This ensures that research inquiries are clearly articulated, enhances the durability of the research output and makes it more accessible to diverse audiences. In some instances the practice, research narrative and practice research can be one and the same experience for an audience (see 1.2.2).
- 1.6.4 In a practice research output, practice may be represented by a proxy, in *documentation of practice* (see 1.2.2).
- 1.6.5 Practice research in the English academy has been particularly influenced by three areas: PhD programmes, research assessment criteria and research funding models, and these areas are likely to continue to have a substantial impact on the field (see 1.3).
- 1.6.6 There are clear challenges in the diversity and inclusivity of practice research as a field. We have sought a diverse array of interviewees to best represent the field within these reports, however we recognise that there is still much work to be done to ensure equal representation in reports such as these (see 1.5).
- 1.6.7 Many practice researchers in the academy are on part-time, fractional contracts, balancing their research alongside a professional practice, often exterior to HEIs. Engagement with this community of practice researchers can prove difficult but is important (see 1.5).
- 1.6.8 There are models within HEIs that work well for supporting practice research, and these models can be adopted more widely. Senior practice research advisor roles within institutions allow for mentorship and workshop schemes to flourish: they aid researchers who are transitioning from professional practice to practice research, providing bespoke and insightful training on methods, structure, formatting, and effective dissemination of practice research outputs. These roles advocate for practice researchers institutionally and nationally, increasing dialogue with senior management, research support professionals, policymakers and funders (see 1.5.2).
- 1.6.9 The field of practice research in England has reached an important stage, where its community has moved on from ontologies and legitimisation to focus on the doing of practice research itself.

1.7 LOOKING FORWARD

In light of the findings of this report, we consider that there are a number of ways in which the field of practice research can move forward. Primarily, there is a need for targeted and sustained investment in an independent practice research advisory body to represent the practice research community in England. This could, for example, be an expansion of the existing Practice Research Advisory Group UK (PRAG-UK).²⁹⁶ It is important that this body would have no specific institutional affiliation, be properly resourced and funded, have a diverse and representative membership that reflects the wider practice research community, and have a very specific set of aims. The future activities of this body, drawn from this report *What is practice research?* may include:

- a) to advocate for support and understanding of practice research across the research landscape, to policymakers, institutional senior managers and to researchers across and beyond disciplinary frameworks;
- b) to create regularly updated recommendations concerning the use of descriptive terminology within the field (for example recommended usage of the terms ‘practice research’ and ‘research narrative’);
- c) to host and initiate transdisciplinary forums and conferences that engage and consult with the practice research community in the widest way possible (including those researchers outside of higher education institutions and those researchers on fractional contracts);
- d) to create and issue guidelines and training schemas for practice researchers. These would be applicable both for PhD researchers and for researchers further on in their careers. Areas for guidelines might include: from professional practice to practice research; methods, structure and formatting; copyright and licensing; accessibility, ethics and inclusivity;
- e) to consider new strategies for engaging with practice researchers — conferences, symposia and questionnaires often don’t work when a researcher’s time is stretched thin. One avenue for this may be within institutions, where the employment of a senior practice research advisor could allow for one-on-one meetings and workshops with researchers;
- f) to create guidelines and training schemas for policymakers, institutional management and research support professionals. Separate guidelines might include: resourcing practice research; accessibility, ethics and inclusivity for practice research; institutional support structures for practice research;
- g) to feed into consultations surrounding the development of criteria for both institutional research assessments such as REF, and for funder organisations such as the UKRI, the Wellcome Trust, the British Academy, and the Leverhulme Trust.

In addition to these specific future activities of an independent practice research advisory body, we recognise the need for further reporting and research in key areas of the field of practice research:

- i) equality and accessibility;
- ii) practice research PhDs;
- iii) ethics and integrity.

²⁹⁶ PRAG-UK “is a body established by members of the HE arts research community to increase the visibility and accessibility of UK Practice Research and its impact, and to make this research more searchable internationally.” See: “PRAG-UK,” accessed 11 December 2019, <https://prag-uk.org>.

Our interviews and wider research have demonstrated a strong and vibrant community of practice researchers across England, who have shaped and defined the discourse of the field. Practice research will endure, regardless of funding, support, and reports because its community recognises the vast opportunity it affords, that for many hundreds of years, the ways of knowing that arise in practice have been shrouded from communication in other fields of research. As Harradine observes “practitioner researchers have been around for a really long time, we will continue to be around for a really long time.”²⁹⁷

297 David Harradine, interview.

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LIST OF ABBREVIATIONS

ACE	Arts Council England
AHRB	Arts and Humanities Research Board
AHRC	Arts and Humanities Research Council
CC	Creative Commons
CHEAD	Council for Higher Education in Art & Design
CLOCKSS	Controlled LOCKSS
DOI	Digital Object Identifier
ESRC	Economic and Social Research Council
EPSRC	The Engineering and Physical Sciences Research Council
EThOS	Electronic Theses Online Service
HEI	Higher Education Institution
HEFCE	Higher Education Funding Council for England
HESA	Higher Education Statistics Agency
IR	Institutional Repository
IRO	Independent Research Organisation
ISNI	International Standard Name Identifier
Jisc	Joint Information Systems Committee
LOCKSS	Lots of Copies Keep Stuff Safe
NGO	Non-governmental Organisation
OA	Open Access
OECD	The Organisation for Economic Co-operation and Development
ORCID iD	Open Researcher and Contributor ID
PARIP	Practice as Research in Performance
PBRNs	Practice-based Research Networks
PR	Practice Research
PaR	Practice as Research
PbR	Practice-based Research
PRAG-UK	Practice Research Advisory Group UK
QR Funding	Quality-related Research Funding
RCUK	Research Councils UK
RAE	Research Assessment Exercise
RE	Research England
REF	Research Excellence Framework
UKRI	United Kingdom Research and Innovation

APPENDIX 1: Selected conferences and symposia on practice research in England (2000-2020)

3rd UK Implementation Science Research Conference, King's College London (online). 16–17 July 2020.

The sixth annual Education and Training Foundation Practitioner Research Conference, University of Sunderland, 6–9 July 2020.

7th International Conference on Professional and Practice Based Doctorates, 30–31 March 2020.

Practice, Reflect, Share: Practice Research and Publishing, Guildhall School of Music and Drama, London, 23 November 2019.

Arts research in Open Access repositories: sharing practice about practice, Chelsea College of Arts, University of the Arts London, 30 August 2019.

Ethics in Practice Research, University of Leeds, 12 June 2019.

Bodies of work to support art, design and media outputs, Nottingham Trent University, 4 June 2019.

National Association of Educators in Practice Conference 2019: Adapting Practice Education for Learners of the Future, The Studio, Birmingham, 10 May 2019.

Per/Forming Futures: Investigating Artistic Doctorates in Dance and Performance, Middlesex University, London, 11-13 April 2019.

Web of Arts Seminar, Open Data Institute, London, 10 April 2019.

Occupational Therapy and Physiotherapy - Practice Based Learning Programmes SHU - 7th Student Conference, New Life Conference Centre, Sleaford, 29 March 2019.

Graphic Design Research Beyond REF 2021, Loughborough University, 20 March 2019.

Capturing practice research: improving visibility and searchability, organised by Jisc, Hilton Euston, London, 15 March 2019.

PRAG-UK: Documenting Practice Research Symposium, London, 23 January 2019.

Graphic Design and the Research Excellence Framework Symposium, Sheffield Hallam University, 17 October 2018.

PRAG-UK Town Meeting, Birmingham City University, 28 September 2018.

12th International Conference on Practice Teaching and Field Education in Health and Social Work 'Innovation in Practice Learning and Field Education' (UK), St John's College, Oxford, 10-11 September 2018.

6th International Conference on Professional and Practice-Based Doctorates, Friends House, London, 22-23 March 2018.

Fine Art Conference: Practice as Research, University of Plymouth, 14–16 March 2018.

The Third PhD By Design Conference, University of Sheffield, 3-4 April 2017.

Does my data look good in this? Exploring research data management in the creative arts, University for the Creative Arts, 18 January 2017.

Symposium on Evidencing Research and Impact in Arts & Humanities Practice: Portfolios 'Beyond Text', Wellcome Collection, 3 February 2017.

- The Second PhD By Design Satellite Session at Design Research Society (DRS) Conference, Brighton, 27 June 2016.
- Practices and Processes of Practice-Research: Interdisciplinary and Methodological Critique, Canterbury Christ Church University, 1 June 2016.
- The Second PhD By Design Conference, Goldsmiths, University of London, 5-6 November 2015.
- (Per)Forming Art Symposium 2015, University of Leeds, 20 September 2015.
- The Future of Practice Research, Goldsmiths, University of London, 4 June 2015.
- Making Knowledge Travel: Exploring Modes of Dissemination For Practice-Based Design Research, Leeds College of Art, 14 May 2015.
- The first PhD By Design Conference, Goldsmiths, University of London, 6-7 November 2014.
- First International Conference on Practice Research ('Salisbury International Forum'), Salisbury, 24-27 June 2008.
- PARIP 2005 International Conference, University of Leeds, 29 June - 03 July 2005.
- Research into Practice... Practice into Research Seminar, Royal College of Veterinary Surgeons' Research Committee, 20 September 2005.
- PARIP 2003 National Conference, University of Bristol, 11-14 September 2003.
- PARIP Symposium, University of Bristol, 10-11 November 2001.

APPENDIX 2: Sample interview questions for researchers

1. Please could you introduce yourself and how you became interested in the field of practice research?
2. What do you consider practice research to be? Do you think that there is a clear definition in existence?
3. Should there be a definition for practice research? What pros and cons might you consider in there being a definition stated?
4. In your research projects, you have chosen to use a specific term to mean “practice research” over others. Is there a particular reason for this? Have you revised your opinion over time?
5. Is practice research by nature a solely academic concern? (who are the audiences for practice research?)
6. By defining practice research as a separate field to practice, is this detrimental to the status of practitioners in the academy?
7. Does research have to exist beyond the moment of its instantiation (to be considered as research)?
8. Does practice have to be documented (to become research)? What is the relationship between this documentation and the research?
9. What are the most common challenges faced by practice researchers in the academy?
10. Do technologies for the capture and presentation of practice research help or hinder practice researchers in the present day?
11. Do you think the presentation of practice research (in the contemporary) must always include a textual element in written form?
12. If we were to propose a singular output form for practice research (with a defined metadata set), with parity to a book, book section or journal article, what do you think the challenges that might be faced in implementing it would be?
13. What are the challenges of durability that face practice researchers when you consider their work over 10, 20, 100 years?
14. What impact do you think that peer review has upon the validity of stated claims / ways of knowing that emerge from practice research projects?
15. What do you think about a centralised body (different to a journal or publisher) for the peer review of practice research outputs across England?
16. What do you think could be done to establish practice research as an transdisciplinary form of research? How could it be extended to disciplines?
17. What do you see as the future for practice research?
18. Do you hold the position that practice research is on par with qualitative and quantitative methodologies?
19. If practice can be considered a method in practice research, then is it possible for practice researchers to employ multiple other methods alongside it?
20. Could you give us examples of successful practice research projects?

APPENDIX 3: Sample interview questions for policymakers

1. Please could you introduce yourself and describe your relation to the field of practice research?
2. What do you consider practice research to be? (Do you think that there is a clear definition in existence? Should there be?)
3. Is practice research by nature a solely academic concern?
4. How do you think the historical situation of artist practitioners in relation to the academy (in England) informed the formation of practice research over the last thirty years?
5. What are the most common challenges faced by practice researchers in the academy?
6. Do you think that the processes involved in the formulation of practice research are intrinsically different to those that take place in more established forms of academic research (i.e. scientific study, philosophy)?
7. Do technologies for the capture and presentation of practice research help or hinder practice researchers in the present day?
8. In terms of the technical presentation of practice research, what issues related to discoverability and interoperability have you encountered? Have any solutions been proffered to improve the situation?
9. Do you think the presentation of practice research (in the contemporary) must always include a textual element in written form or could other media be used to present research?
10. If we were to propose a singular output form for practice research (with a defined metadata set), with parity to a book, book section or journal article, what do you think the challenges that might be faced in implementing it would be?
11. Would it be prescriptive or restrictive if we were to propose guidance for composing a research narrative for practice research?
12. What are the challenges of durability that face practice researchers when you consider their work over 10, 20, 100 years?
13. What do you think about a centralised body (different to a journal or publisher) for the peer review of practice research outputs across England?
14. If you were to conduct a “practice literature review” where would you go?
15. What may be some ways to better represent practice research at funding and policy-making level?
16. What do you see as the future for practice research?

REPORT 2

HOW CAN
PRACTICE
RESEARCH
be SHARED?

James Bulley
&
Özden Şabin

TABLE OF CONTENTS

Outline of the report	1
Terms in use in this report	4
2.1 Structuring practice research	5
2.1.1 The compositional structure of practice research outputs	5
2.1.2 Practice in practice research outputs	8
2.1.3 Structuring practice research for REF	10
2.2 Item types for practice research	13
2.2.1 Item types	13
2.2.2 Exploring the ‘project’ item type for practice research outputs	15
2.2.3 Editions	17
2.3 Formats and metadata	18
2.3.1 Formats	18
2.3.2 Metadata	23
2.4 Peer review	25
2.4.1 Peer reviewing practice research for publication	25
2.4.2 Exploring the future of peer review of practice research publication	29
2.5 Storing and preserving practice research outputs	31
2.5.1 Practice research and the archive	31
2.5.2 Institutional repositories	34
2.5.3 Practice research datasets	40
2.5.4 Exploring the Open Library of Practice Research (OLPR)	42
2.6 Sharing practice research	44
2.6.1 How practice research outputs are shared	44
2.6.2 Discoverability	47
2.6.3 Interoperability and persistent identifiers	51
2.6.4 Metrics, analytics and citation	54
2.6.5 Copyright, Creative Commons and intellectual property	55
2.6.6 Open Access	57
2.7 Conclusions	59
2.8 Looking forward	61
References	62
List of abbreviations	68
Appendix 1: Practice research: questionnaire for research support professionals	70
Appendix 2: Practice research: research support professionals survey	71

Appendix 3: Sample interview questions for repository developers	73
Appendix 4: Sample interview questions for researchers	74
Appendix 5: Sample interview questions for policymakers	75

OUTLINE OF THE REPORT

In our first report *What is practice research?*, we explored what practice research is. In this second report, *How can practice research be shared?* we explore what follows: how practice research is structured and disseminated¹ amongst a diverse range of audiences.

As with all research fields, communicability is intrinsic to practice research. Well communicated research creates discourse and propagates the ways of knowing that emerge in its undertaking. The ways that practice research can be shared have inspired fervent discussion across the field in recent decades, from researchers, policymakers and research support professionals. In this report, we explore and summarise these discussions, drawing on interviews, questionnaire responses and survey responses² from a wide and diverse representative array of researchers, policymakers and research support professionals from the field of practice research.

As Steven Hill (Director of Research at Research England) observes, practice research presents a huge opportunity for the modernising and revitalising of research communication in the present day: “I think you could almost argue that practice research is in a position to be inventing its dissemination route for the digital era, and can learn all the lessons about what’s gone wrong over 400 years in written research communication and actually get it right, rather than be stuck with a 16th, 17th century model that we’re trying to fit into a different world.”³ In this report we explore how practice research has, and will continue to develop its own dissemination forms and strategies, aiding progression for its researchers and inspiring the research landscape more generally. Many practice researchers embrace contemporary, technologically radical and societally beneficial attitudes to composing and disseminating research and we note a wide appetite for adoption of Open Access across the field. With this opportunity comes a clear and urgent need to move forward the conversation about sharing practice research. Whilst there have been many notable advances since 2010, interviewees and respondents from across the field expressed their frustration at the slow pace of progress in this area. One reason for this is that there has been an understandable focus in Higher Education Institutions (HEIs) on devising successful forms of sharing practice research as part of assessment exercises. This situation has proven both a catalyst and an impediment when developing standards for how practice research is preserved and shared in the long term to a wide array of research audiences.

In the first section of this report 2.1 *Structuring practice research* we detail the common aspects of all practice research, and offer guidance as to how practice research outputs may be compositionally structured. We note that for many researchers guidance on compositional structure can prove restrictive, and as such should not generally be a requirement. We observe that many in the field advocate for simple linguistic and structural forms in the composition of practice research outputs, noting that this increases accessibility for diverse audiences. It becomes clear that understanding the needs of a research audience is of substantial benefit to practice researchers. We then discuss the different ways in which practice can be conveyed in a practice research output. This can vary from the audience experiencing a research narrative during practice, to documentation as a proxy

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- 1 In these reports we use the word ‘dissemination’ to describe the sharing of research outputs via research systems.
 - 2 The breakdown of our survey respondents by profession are as follows: 50% repository manager/administrator; 30% research office manager/administrator; 5% research support librarian; 5% research data manager; 5% strategic lead for research data management; 5% research support and scholarly communications team manager. The research repository, data repository, and CRIS systems our respondents use are: DSpace, FigShare, ePrints, Haplo, PURE, and Symplectic Elements.
 - 3 Steven Hill, interview by the authors, 27 June 2019.

for practice conjoined with a research narrative presented after the event. We then detail how the guidance surrounding institutional research assessment exercises has affected practice researchers in structuring their outputs.

In 2.2 *Item types for practice research* we investigate the item types that practice research might be conveyed within. In the context of these reports the item type can be considered to be how a practice research output coheres for sharing. We discuss the feasibility of instituting a ‘project’ research output item type with parity to other established research output item types such as book and journal article. The collective potential of a ‘project’ item type may prove useful for practice researchers: a coherent and transferrable single item type that can contain multiple different file formats and can be adopted across the field, being persistent and interoperable across global research systems. We note the importance of editions (see 2.2.3 *Editions* in this report) which allow for future iterations of a research output, and also that the item types that practice research may be conveyed within ought to be considered open for social and technological developments in the future.

In 2.3 *Formats and metadata* we explore the most commonly used formats for practice research outputs. We draw on the rich expertise of the research support professional community, as well as researchers themselves, to investigate appropriate digital file formats that bear in mind the needs of practice researchers. We then explore issues of file format preservation, and the need to think about how these formats might be converted into future formats in the long term. We then investigate the importance of metadata standards, and the potential need for specific developments related to practice research in this area.

In 2.4 *Peer review*, we explore one of the most important and least discussed areas of sharing practice research. While there are debates around its validity, peer review is of importance for practice researchers, it can provide editorial assistance and assurance of shareability, preservability and interoperability. For audiences and funders, peer review can build up trust in the overall body of practice research. We find that many of the current peer review scenarios, drawn from traditional science models, may not work well for practice researchers. There are, however, a small array of journals that have arisen across the practice research field where good review practice for publication can be found. Drawn from these findings, we note that substantial challenges exist in considering how peer review may operate in the field of practice research. We find that further studies may explore new models for peer review of practice research for publication.

In 2.5 *Storing and preserving practice research outputs* we discuss the challenges that exist in the long-term preservation of practice research outputs. These include: standardisation of item types; agreement on formatting and metadata; and enabling interoperability. We explore the problems of preserving practice research outputs submitted to research assessments, taking the particular example of ‘the REF graveyard.’⁴ We survey the existing systems that host and aggregate practice research outputs, noting the crucial role that institutional repositories play. We recognise that substantial progress will only be made by drawing together research support professionals in dialogue with practice researchers, and through further support for those already working to resolve preservation issues for practice research outputs. We then consider the potential of an Open Library for Practice Research (OLPR) for harvesting and hosting peer reviewed practice research outputs. The OLPR could act as an in-perpetuity resource for practice research outputs available to both current and future researchers and audiences.

4 For a discussion of the ‘REF Graveyard,’ see section 1.3.3.10 in our first report *What is practice research?*.

In the final section 2.6 *Sharing practice research* we explore what is generally considered the greatest challenge for practice research in the present day: how can we effectively share and disseminate practice research outputs to both academic and non-academic audiences? We provide a detailed account of the many and varied ways in which practice research is shared currently, and find that practice researchers may consider ways of sharing their research beyond the academy. From our interviewees and questionnaire and survey respondents, we find that institutional repositories are the cornerstone of good practice for sharing practice research outputs. We identify the need for further support for digital literacy across the practice research field, particularly for researchers and research support professionals. From our respondents we learn that Persistent Identifiers (PIs) are fundamental to the effective sharing of practice research outputs (recommendations include the application of DOIs and ORCID iDs). From our surveys and further research we learn that metric tools and citation indexes are not commonly used within the field, but they may be adopted in future. Issues surrounding the copyright and licensing of shared practice research outputs are discussed, and examples of licenses and available support networks are outlined. Finally, we map potential future pathways for the sharing of practice research outputs. We find that perhaps the most efficient and successful route to sharing practice research will be to build upon existing infrastructure and follow the fundamental principles of Open Access, making use of the good practice that already exists.

Finally, we extend the conclusions and considerations presented at the end of our first report *What is practice research?*, noting that if properly supported there are a number of activities that an independent practice research advisory body can undertake that may enable the effective sharing of practice research in the future.

TERMS IN USE IN THIS REPORT

To provide clarity for those reading this report, we include here brief descriptions of the main terms we use to describe practice research and its processes:

PRACTICE RESEARCH	An umbrella term that describes all manners of research where practice is the significant method of research conveyed in a research output. This includes numerous discipline specific formulations of practice research, which have distinct and unique balances of practice, research narrative and complementary methods. The term ‘practice research’ is non-capitalised in general usage, in common with other research fields.
RESEARCH NARRATIVE	A research narrative articulates the research inquiry that has emerged in practice. In a practice research output, a research narrative can be conjoined with, or embodied in, practice.
RESEARCH TYPE or RESEARCH FIELD	Within this report, the research type or field is practice research (in other contexts this could be qualitative research or quantitative research, for example).
RESEARCH ITEM TYPE	The research item type is the physical or digital container for a research output. Examples of research item types include: book, journal article, design, project, performance, conference proceedings.
COMPOSITIONAL STRUCTURE	The detailing of a research narrative and/or practice (or documentation as a proxy of practice). The compositional structure can be contained within a research item type.
FORMAT	Within this report format refers to the file type that practice research is shared as. Digital file types may include: PDF, ZIP, XLS, XML, WAV, DOCX, MP4, EXE, DMG, etc.

2.1 STRUCTURING PRACTICE RESEARCH

Key points from section

- The compositional structure of a practice research output may vary depending on the research inquiry. In some cases a research narrative may be evident in the practice itself. In other cases an additional research narrative may be employed in parallel to the practice, or a research narrative incorporates documentation as a proxy for practice.
- For some practice researchers, it is useful to have reference guidelines for structuring a practice research output. An example compositional structure of an output may be:
 - (Summary / Abstract)
 - Context / Introduction
 - Research inquiry / Questions in practice
 - Method statements
 - Practice, description of practice, or documentation of practice (as a proxy)
 - Insights / Discussion of ways of knowing
 - Conclusion and references
- Practice research outputs are submitted to, rather than created for, research assessments such as the REF.

2.1.1 THE COMPOSITIONAL STRUCTURE OF PRACTICE RESEARCH OUTPUTS

2.1.1.1 As with all research fields, the compositional structure of a practice research output may be defined by the researcher. This is particularly important for practice research, a field which we have observed in our first report *What is practice research?* exhibits common traits of methodological pluralism and transdisciplinarity (see 1.1). However, even with an open approach to compositional structure, there are common elements in all practice research outputs. Practice research outputs contain a research narrative which conveys (or embodies) practice as the significant method, articulating a research inquiry and the ways of knowing that arise.

2.1.1.2 A large number of our interview, questionnaire and survey respondents mentioned the need for the sharing of example compositional structures for practice research outputs. Whilst we recognise that for many researchers the compositional structure of their research outputs is necessarily bespoke, and as theorist Henk Borgdorff observed they may find this guidance restrictive,⁵ it is useful to include an example of how a practice research output may be structured in cases where a research

5 Henk Borgdorff, interview by the authors, 25 April 2019.

narrative is not embodied in the practice. The generic example of a compositional structure that we include here is drawn from a fruitful and wide ranging panel discussion convened by the Practice Research Advisory Group UK (PRAG-UK) on 23 January 2019:⁶

- (Summary / Abstract)
- Context / Introduction
- Research inquiry / Questions in practice
- Method statements
- Practice, description of practice, or documentation of practice (as a proxy)
- Insights / Discussion of ways of knowing
- Conclusion and references

- 2.1.1.3 The compositional structure of practice research generally exists in a research item type that can be shared, of which there can be many types (project, book, performance, film, website, article, etc.). For artist and researcher Tom Corby, practice research should be situated in context and should aim to convey “Who is doing what? How is my work shifting the needle?”⁷ For Corby there ought to be “articulation of what the work is contributing to the area.”⁸ In considering the compositional structure of practice research outputs, researchers may also learn from the best practice of other forms of research.
- 2.1.1.4 A number of our interviewees observed that practice research welcomes both linear and non-linear research narratives. This is a strength of practice research, allowing for a great degree of honesty as to how a research project truly unfolds (the project may start with one method then change as a result of mistakes, or something that was practice may in the long term only transition to a research project long after the practice is complete).
- 2.1.1.5 We advance a word of caution in *presenting* practice research in a non-linear way. This can be an exciting and forward-thinking way of conveying a research narrative, and we have had a number of interesting examples shared with us.⁹ However, there are questions that might arise before utilising non-linear presentation for research: does a non-linear presentation form cause accessibility issues for certain audiences? Will a non-linear presentation cause problems for long-term preservation? Does a non-linear presentation affect the ability of the research to be interoperable and discoverable?¹⁰
- 2.1.1.6 The language used in practice research is of utmost importance, and this topic arose time and time again. For former Pro-Vice-Chancellor for Research and Professor of Design Bruce Brown it is vital that the language used to convey a practice research inquiry is as open and accessible as possible: “you should start with the assumption that anybody in the world could dive into this.”¹¹ Languages of practice research can vary, as Corby notes: “knowledge takes different forms and it can be embodied and tactile and sensory.”¹² What is clear is that practice researchers should try to

6 PRAG-UK: Documenting Practice Research Symposium, London, 23 January 2019.

7 Tom Corby, interview by the authors, 6 March 2019.

8 Tom Corby, interview.

9 International Consortium of Investigative Journalists investigations are good examples of this. For example: “Implant Files,” International Consortium of Investigative Journalists, accessed 29 November 2020, <https://www.icij.org/investigations/implant-files>.

10 We explore issues of discoverability and interoperability in this report in 2.6 *Sharing practice research*.

11 Bruce Brown, interview by the authors, 13 March 2019.

12 Tom Corby, interview.

ensure that the language used allows their audience to access the ways of knowing that emerge. Publisher Victoria Cooper recommends considering working backwards from the point of view of the audience you are speaking to.¹³

- 2.1.1.7 As we have observed in our first report *What is practice research?* there are few standardised guidelines for practice research PhDs in England (see 1.3.2). There are however numerous examples of good practice across the academic sector that can inform and enrich example guidance for the compositional structure of practice research PhDs. Vital resources that can be drawn upon as reference for those seeking structural guidance of this kind are the British Library's EThOS service,¹⁴ Open Access Theses and Dissertations (OATD),¹⁵ Networked Digital Library of Theses and Dissertations,¹⁶ and the DART-Europe E-Theses Portal,¹⁷ all of which provide examples of hundreds of practice research PhDs completed over the last twenty years.

13 Victoria Cooper, interview by the authors, 25 March 2019.

14 "EThOS aims to provide: A national aggregated record of all doctoral theses awarded by UK Higher Education institutions; Free access to the full text of as many theses as possible for use by all researchers to further their own research." See, "About EThOS," British Library, accessed 28 November 2020, <https://ethos.bl.uk/About.do>.

15 For more information about OATD, please see: Open Access Theses and Dissertations, accessed 28 November 2020, <https://oatd.org>.

16 Networked Digital Library of Theses and Dissertations, accessed 30 November 2020, <http://search.ndltd.org>.

17 DART-Europe E-Theses Portal, accessed 30 November 2020, <https://www.dart-europe.org/basic-search.php>.

2.1.2 PRACTICE IN PRACTICE RESEARCH OUTPUTS

- 2.1.2.1 As we have noted in our first report *What is practice research?*, in the majority of instances, it is not possible for research audiences to experience the practice first hand and as a result documentation is employed as a proxy for practice (see 1.2.2). This documentation of practice may be woven throughout a research narrative. As theorist and researcher Michael Biggs summarises, practice “isn’t turned into research by being documented, it doesn’t have to be documented; but it’s efficient to document it, if possible.”¹⁸ For Biggs “documentation increases the potential for impact to a wider audience.”¹⁹
- 2.1.2.2 One area of practice research that is particularly challenging when considering how to convey practice in practice research is for researchers in areas such as performance²⁰ and site-specific installation.²¹ Peggy Phelan’s statement that “performance’s being [...] becomes itself through disappearance,”²² illustrates the challenge facing researchers who wish to convey performance practice as their significant method in a research narrative. Practice researchers using performance have contributed widely to an in-depth understanding of documentation as a proxy for practice, including explorations into the durational nature of practice, the challenges of capture, and whether research needs to always employ language (see 1.2 *The field of practice research*). For practice researchers using performance (and related methods), a different remainder may well be what is communicated through documentation as a proxy for practice, but when conjoined with a research narrative, this can make for well structured and communicative practice research.
- 2.1.2.3 As researcher Maria Chatzichristodoulou observes, it is important to differentiate between an overall practice research output and documentation as a proxy for practice within a research output. This is an area that has caused notable confusion between research support professionals and researchers in the last decade.²³
- 2.1.2.4 Artist and researcher Jane Grant observes that documentation of practice can have other useful consequences as well as being a proxy for practice in practice research projects: “I tell my students to always look at when they get to a point in their PhD research where they need to capture and start owning things, particularly if they’re making things that have potential copyright.”²⁴
- 2.1.2.5 Among the vast array of tools used by practice researchers to create documentation as a proxy for their practice, the most common we heard reference to were: film and digital cameras, notebooks, file sharing systems, sound recorders, post-production software, and code repositories. One particularly burgeoning area mentioned by a number of our interviewees was the advent of Virtual Reality (VR) technologies, which for many are seen as an exciting avenue for an experiential documentation of practice in the future.²⁵

18 Michael Biggs, interview by the authors, 24 April 2019.

19 Michael Biggs, interview.

20 David Harradine, interview by the authors, 28 March, 2019.

21 Jane Grant, interview by the authors, 13 June 2019.

22 Peggy Phelan, *Unmarked: The Politics of Performance* (London; New York, NY: Routledge, 1993), 146.

23 Maria Chatzichristodoulou, interview by the authors, 16 October 2019.

24 Jane Grant, interview.

25 “Maybe VR technologies will actually start to give us digital representations that are much more immersive and much more like the real experience.” Steven Hill, interview.

- 2.1.2.6 For many practice researchers, particularly those who have a distinct professional practice outside of the academy, there are challenges of copyright, licensing and economics in sharing full documentation as a proxy for practice in the context of a practice research output.²⁶ This issue is recognised by a number of our interviewees and respondents. One general way forward with this issue is to create representative excerpts of practice (such as pages from musical scores²⁷ or excerpts from films), that can then be shared under an appropriate Creative Commons license.²⁸
- 2.1.2.7 One of the most common pieces of feedback we had from our interviewees regarding receiving practice research as an audience, was the need for documentation (as a proxy for practice) to be of reasonable format and length.²⁹
- 2.1.2.8 Where it is not possible for documentation to be employed as a proxy for practice (due to financial constraints, conceptual issues or licensing issues for example), a description of practice can function to elucidate the practice as part of a research narrative.
- 2.1.2.9 There are institutional support issues with the creation of documentation as a proxy for practice in practice research. Not all institutions are able to provide the same level of funding and facilities for documentation. As composer and researcher Lauren Redhead describes: “not all work is the same, not everybody has access to the same resources.”³⁰

26 ‘Funmi Adewole, interview by the authors, 20 February 2020.

27 Emma Hewett, Royal College of Music, response to “Practice Research: Questionnaire for Research Support Professionals,” 2019.

28 We explore copyright, Creative Commons and intellectual property issues further on in this report in 2.6 *Sharing practice research*.

29 Bruce Brown, interview.

30 Lauren Redhead, interview by the authors, 2 February 2019.

2.1.3 STRUCTURING PRACTICE RESEARCH FOR REF

- 2.1.3.1 Conducting the Research Excellence Framework (REF 2021) has required the issuing of guidance for structuring practice research submissions both as outputs and impact case studies. REF 2021 and the issuing of previous research assessment criteria has inspired important debates and discussions surrounding potential compositional structures for practice research. In future, agreed conventions and efficient well-resourced infrastructures across the practice research field will greatly aid in the consideration of this area.
- 2.1.3.2 Research for REF is defined as “a process of investigation leading to new insights, effectively shared.”³¹ There has been general support among the research community for this definition, which appeared in the REF 2014 guidelines and has continued to be adopted for REF 2021.³²
- 2.1.3.3 HEIs preparing to submit practice research outputs for REF are likely to encounter barriers and challenges. These issues can be broadly categorised into three interrelated headings: institutional, content related, and technical. Institutional issues include: practice researchers on small fractional contracts (and hence time constraints arise); some practicing academics on REF-eligible research contracts may not have received sufficient support to transition from professional practice to practice research. An example of a content related issue is the lack of support provision for composing research narratives and creating documentation as a proxy for practice (including facilities, tools, guidance, training, mentoring and publication assistance). Technical issues include the challenge of assembling practice research outputs for REF submission in a way that both represents the work and meets technical submission requirements.
- 2.1.3.4 Providing a rigid compositional structure for practice research outputs can risk taking away the creativity and inspiration of composing research, removing the potential of innovation in structure and formulation. Chatzichristodoulou observes that the risk of being seen as overly prescriptive with structural guidance is mitigated by researchers usually finding it useful, as long as it is clearly a suggestion rather than a requirement.³³
- 2.1.3.5 Corby, based on his experience of mentoring researchers for REF output submissions, believes that: “You have to make it easy for them [practice researchers] to understand what the research dimensions are. Again, it’s about articulating the issues or the questions, the methods, the context and what the research is actually saying, the insights that it’s producing.”³⁴ According to artist and researcher David Cotterrell, the REF 2021 requirement of providing a 300-word text on research process³⁵ gives practice researchers the opportunity to “identify the fact that the artwork doesn’t exist in a vacuum, it’s part of research.”³⁶

31 “REF 2021 Guidance on submissions, Annex C,” REF 2021, accessed 28 August 2019, https://www.ref.ac.uk/media/1092/ref-2019_01-guidance-on-submissions.pdf.

32 Contractual obligations and university funding set out sharing and dissemination as core elements of research as defined by REF. It is an ontological question as to whether research has to be “effectively shared” in order to count as research, and alongside it bears an ethical question as to whether it should be shared. We provide a detailed discussion of this question in 1.2 *The field of practice research* in our first report *What is Practice Research?*

33 Maria Chatzichristodoulou, interview.

34 Tom Corby, interview.

35 REF 2021 allows submission of 300-word statements on research content/process as additional information for those output submissions where the research inquiry is not evident from the practice itself. See: “REF 2021 Panel criteria and working methods,” REF 2021, accessed 29 November 2020, https://www.ref.ac.uk/media/1450/ref-2019_02-panel-criteria-and-working-methods.pdf.

36 David Cotterrell, interview by the authors, 7 May 2019.

- 2.1.3.6 The benefits of providing guidance for a potential compositional structure of a practice research output will be felt far beyond REF. Effective structuring of research enables clear contextualisation of the research inquiry, and helps to establish a firmly rooted research culture. Jane Boggan, Panel Adviser for Main Panel D for REF 2014 and REF 2021, states: “Where does this piece of work fit? If you’re going to make the case that this is a new insight, unless you’ve got a sense of where this sits in the context of other work in that field, it’s very difficult to say whether it’s new or not.”³⁷ This view is echoed in the words of Hill: “As someone from outside of the disciplinary areas, I look at a practice piece and I think, ‘How do I understand where that’s come from? I can see what it is and what it tells me, but I don’t know where it’s come from,’ and with a journal article or a book, it’s the bibliographies, the footnotes, that’s what tells you where it’s come from. I think that is really important.”³⁸ For Biggs: “We’re looking at building a community of researchers where a researcher builds on the experience and to some extent the approved work of their predecessors.”³⁹
- 2.1.3.7 The panel criteria and working methods for REF 2021 set out the differing criteria for practice research output submission across the four main panels. Whilst all four main panels require a 300-word statement for research content and/or process as additional information (if this is not evident from the output itself), differences in criteria exist for the output structure. For example, Main Panel D allows four different ways to submit an output (namely, single item with a 300-word statement; multi-component item with a 300-word statement; single item with a 300-word statement and a longer text; and multi-component item with 300-word statement and a longer text).⁴⁰ Main Panel C, however, takes a different approach by stating “submissions should include an explanatory presentation of the building, design or intervention in an easily-handled paper-based format (for example, a PDF which could include photographs, figures or diagrams) sufficient to allow the panel both to understand the output without visiting it, and to make a judgement of its research contribution.” Main Panel C welcomes multimedia, but only in circumstances where this is essential and in a limited manner: “Where the form of an output makes this essential, the paper-based submission may be supplemented by limited visual material in an accessible format such as a video file.”⁴¹
- 2.1.3.8 Many practice research outputs exhibit both methodological pluralism and a transdisciplinary nature, which can cause substantial technical and structural challenges in their formulation. There is a need for generally accepted guidance on compositional structure and item types for practice research outputs, enabling researchers to focus their primary efforts on the research itself, which then, when completed, will be submitted for research assessment.
- 2.1.3.9 Based on the REF definition of research and our conversations with researchers, research support professionals and panellists who have worked and advised on REF submissions, we suggest the same guidelines on compositional structure that we propose across the field of practice research are equally applicable for practice research outputs submitted to REF:
- (Summary / Abstract)
 - Context / Introduction
 - Research inquiry / Questions in practice
 - Method statements
 - Practice, description of practice, or documentation of practice (as a proxy)

37 Jane Boggan, interview by the authors, 28 March 2019.

38 Steven Hill, interview.

39 Michael Biggs, interview.

40 REF 2021 Panel criteria and working methods, 48.

41 REF 2021 Panel criteria and working methods, 47–48.

- Insights / Discussion of ways of knowing
 - Conclusion and references
- 2.1.3.10 REF impact case studies aim to demonstrate how research outputs have brought about change in the world beyond academia: “For the purposes of the REF, impact is defined as “an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.”⁴² As part of its assessment process REF provides structural templates for impact case studies.⁴³
- 2.1.3.11 From our interviewees, we learnt that practice research outputs can have substantial impact both in the real time of practice and following the dissemination of practice research. The relationship between outputs and impact is not necessarily linear,⁴⁴ and the amount of impact can change over time.⁴⁵
- 2.1.3.12 One of the most important questions for practice researchers to consider when writing an impact case study for REF is: “How did the research that had emerged from practice reach out to the wider world and who benefited from it?” In the suggested structure of REF impact case studies, a 150-word description at the beginning is intended to answer this question, and the case study itself is the gradual expansion of it.⁴⁶
- 2.1.3.13 For most practice research impact case studies, documentation of practice as a proxy is vital, and additional evidence of impact is essential. This requires both careful structuring and additional proactive documentation of impact.⁴⁷

42 REF 2021 Guidance on submissions, 68.

43 For REF 2021 impact case study templates, see: “Submission System Data Requirements,” REF 2021, accessed 30 November 2020, <https://www.ref.ac.uk/guidance/submission-system-data-requirements>.

44 As academic and former Vice-Chancellor of the University of London Geoffrey Crossick observes: “One really interesting thing when thinking about the REF guidelines—they were there in 2014 as well, and it was really important that it was there—the research impact can happen at the same time, and as part of, the research process itself, rather than it being: here’s the research, here are the findings, now we give it to other people, and we have the impact.” Geoffrey Crossick, interview by the authors, 30 May 2019.

45 In our interview Crossick mentioned as an example *Theatre Spectatorship and Value Attribution*, which was led by Janelle Reinelt and commissioned as part of the *Towards a better understanding of cultural value* report Crossick co-authored with Patrycja Kaszynska. (See: Geoffrey Crossick and Patrycja Kaszynska, *Understanding the value of arts & culture: The AHRC Cultural Value Project*, accessed 29 November 2020, <https://ahrc.ukri.org/documents/publications/cultural-value-project-final-report>.) Reinelt and her collaborators took three plays at three significant theatres in provincial English towns, and did in-person surveys with people coming out of them after the performances. The researchers repeated the survey two months later. “They didn’t get as many responses over time, but their conclusion was there is a real difference, when you study people about what difference it’s made to them. As they’ve come out of a theatre performance, it was all about the drama, the feelings, the theatricality of it, all that. Two months later it was much more cognitive, they were actually reflecting on the themes of the issues, and that conclusion was if you capture people’s responses as they emerge from the event you’re missing a huge amount of the difference it makes to them, or potentially makes to them being at it.” Geoffrey Crossick, interview.

46 In 2019, Filmmaking Research Network published a review of what went well in terms of impact case studies for filmmaking in REF 2014. This review employed a series of examples, and used them to analyse what lessons can be learnt to achieve stronger impact case studies in the future. “Film Research in REF Impact,” Filmmaking Research Network, accessed 28 November 2020, <http://filmmakingresearch.net/wp-content/uploads/2018/10/Film-Research-in-REF-Impact.pdf>.

47 As researcher and theorist Robin Nelson notes, “Case studies are a lot of extra work, I think if they’re going to be done well, they need to be documented and proactively. The kind of responses you need, need to be proactively sought.” Robin Nelson, interview by the authors, 25 April 2019.

2.2 ITEM TYPES FOR PRACTICE RESEARCH

Key points from section

- The appropriate item type for a practice research output varies depending on the most effective way of presenting the research inquiry.
- Practice research outputs may be contained in any research item type, including book, book section, exhibition, journal article, performance or project.
- Item types other than books, book sections, journal articles and conference proceedings currently lack discoverability and interoperability with global research systems, hindering sharing.
- A ‘project’ item type may be adopted across global research systems, enhancing the discoverability of multi-component practice research outputs.
- Traditional methods of creating ‘editions’ can be employed for practice research outputs.

2.2.1 ITEM TYPES

2.2.1.1 Common examples of item types⁴⁸ for practice research outputs currently include: project, design, experiment, performance, film, exhibition or any other traditional item types such as book, book section or journal article. In these reports the item type can be considered as the container for a practice research output, an enclosure that allows content and metadata to be grouped, preserved and disseminated.

2.2.1.2 We have found that the sharing of practice research in England in the last twenty years has caused a vast expansion of the range of research item types requested by researchers from research support professionals. This is a huge challenge both for institutional repositories and for research support professionals who aid the discoverability, accessibility, and interoperability of practice research outputs. Institutional repositories have responded to these needs by creating new item types and metadata sets in their systems, as well as supporting a much larger array of file formats. This scenario has proven costly and complex, and smaller institutions have been unable to support the development of such large sets of item types and metadata schemas within their research repositories.

2.2.1.3 RAND Europe’s 2019 study conducted for Research England shows that institutional researchers across all research fields produce a surprising diversity of output item types, and their statistical analysis demonstrates that the diversity of these forms of output is likely to increase.⁴⁹

48 ‘Item type’ is a term that is in common usage across many research repositories and systems in England. It describes a type of research, such as an exhibition, article, monograph or performance. This is a distinct term to ‘item format’ which describes a type of file, such as PDF, XLS or HTML that may be part of the item.

49 Sarah Parks, Daniela Rodriguez-Rincon, Sarah Parkinson, and Catriona Manvill, “The Changing Research Landscape and Reflections on National Research Assessment in the Future, Research England, 2019,” RAND Corporation, accessed 29 November 2020. <https://doi.org/10.7249/RR3200>.

- 2.2.1.4 As we detail further on in this report, in 2.6 *Sharing practice research*, most global research indexes and widely used research discovery tools do not include any collective research item types such as project, portfolio or collection, or indeed any of the research item types outside of the traditional set of article, book, book section and conference proceeding. This situation means that many item types that exist on institutional repositories, including item types commonly used by practice researchers such as performance, film, experiment and exhibition, are not discoverable or interoperable with the research discovery systems that are most commonly used by research audiences.
- 2.2.1.5 As many of our interviewees have noted, it is important to distinguish between research item types and their subset components. It is possible for one research item type to have only one subset research component. For example, a book item type may contain only a single PDF file alongside metadata pertaining to the book item type. It is also possible for one item type to act as a collection of subset research components. For example, a project item type may contain multiple subset research components such as documentation of practice as a number of image files, and a research narrative as a PDF file. In the context of a project item type, all of these subset components are collected under one item type, ‘project,’ with metadata alongside pertaining to the project item type. As Head of Research and Scholarly Communications Jenny Evans and Lead Developer Tom Renner note, the lack of distinction between overall item type and subset research components can cause issues for interoperability and general progress in discourse: “Since practice-based research is more likely to be made up of multiple files, this confusion hinders interoperability.”⁵⁰
- 2.2.1.6 Confronting the issues that surround the item types for practice research is an ongoing challenge for the field as Crossick observes: “I think exploring the research process, as well as the research output is a fundamental challenge for any research, as it has to be transmitted to those who were not present in its making.”⁵¹ As a number of research support professionals observe, the decision on the appropriate item type for practice research often lies in collaborative discussion between both researchers, research support professionals and by making reference to relevant guidelines for hosting research.

50 Jenny Evans, University of Westminster and Tom Renner, Haplo, response to “Practice Research: Questionnaire for Research Support Professionals,” 2019.

51 Geoffrey Crossick, interview.

2.2.2 EXPLORING THE ‘PROJECT’ ITEM TYPE FOR PRACTICE RESEARCH OUTPUTS

- 2.2.2.1 As Evans and Renner have observed, the majority of practice research outputs include subset research components, often due to documentation as a proxy for practice being included as a separate component to a research narrative. This combinatory aspect elicits practical problems that differ from those in traditional research fields where researchers generally operate by selecting from a dominant quartet of research item types: article, book, book section and conference proceeding, where a research item type generally has only one subset component.
- 2.2.2.2 As noted by a number of research support professionals we talked to, the ‘project’ item type (also variously termed ‘collection’ or ‘portfolio’⁵²) has emerged in common use particularly from the needs of practice researchers in the last decade. In institutional repositories this is an item type that groups subset research components of a research output together, under one shareable and preservable item type with a singular metadata schema. This project item type has proven very successful in increasing access to practice research in institutional repositories. As one of our survey respondents explains: “We have a customised instance of EPrints which allows us to create collections, which is helpful.”⁵³ As Evans and Renner observe: “the concept of a collection/portfolio is key to practice research and this is not adequately reflected in standards.”⁵⁴
- 2.2.2.3 Experimenting with the most appropriate item types for research outputs, whilst undoubtedly challenging and often technically complex, is important when seeking to expand what research can do in society. This fact is echoed by the Budapest Open Access Initiative: “We encourage experiments to take better advantage of the digital medium, and digital networks, for the benefit of research.”⁵⁵ For forensic scientist Danielle Moncrieffe, it may be that new item types are required to properly communicate to audiences the new ways of knowing being uncovered in practice research: “I think communicating it in other forms, other than the written article or the book, may be more beneficial to the end user.”⁵⁶
- 2.2.2.4 From both researchers and research support professionals, we find a need to investigate how to institute the ‘project’ item type across global research systems. This would make a wide array of practice research outputs available that up to now have only been accessible on institutional repositories and have not been discoverable more widely. Adopting the ‘project’ item type across global research systems may pose substantial technical and cross-sector challenges. However, its implementation would be of huge benefit not only for practice research, but also for other research fields. It can provide a clear solution to the technical issue that currently exists in how to share and preserve research outputs that include subset research components, making sure these items become discoverable, preservable and interoperable.
- 2.2.2.5 In discussions with a number of our interviewees surrounding the nature of a ‘project’ item type, we explored the idea of it containing both a singular research component file and multiple subset

52 ‘Portfolio’ was the term that was used to refer to the practice research output submissions in REF 2014. The term was not used for REF 2021.

53 Respondent, Practice Research: Research Support Professionals Survey, 2020.

54 Jenny Evans and Tom Renner, questionnaire response.

55 “Ten years on from the Budapest Open Access Initiative: setting the default to open,” Budapest Open Access Initiative, accessed 29 November 2020, <https://www.budapestopenaccessinitiative.org/boai-10-recommendations>.

56 Danielle Moncrieffe, interview by the authors, 1 February 2020.

research components. Hill recognised both the potential and the challenge this posed: “there’s a question about whether your concept is of a singular item versus a way of collecting together multiple things in a structured way, and whether there are different levels of technological barrier to doing those things.”⁵⁷ For Torsten Reimer, Head of Research Services at the British Library, a single ‘project’ container file as an option for practice researchers (and other research fields) was attractive: “that’s quite nice, because you just get one container file, and you describe it properly – as a repository you don’t have to worry about how different bits relate to each other, because that’s already been taken care of. That’s a nice simplification.”⁵⁸

- 2.2.2.6 As Reimer observes, the adoption of a new research item type ‘project’ would require a substantial cross-sector coalition: “How do you then get the adoption? How do you get the tools to create it? Is the community really interested enough to use something like it? So, that’s probably where I see more of a challenge. You probably need some kind of supported campaign, with a group of organisations driving it.”⁵⁹ As Reimer observes, it is important to consider the future use and reuse of such an item type: “if you get this 50 years later, and you want to convert it and make it readable, or simply if you’re a human user who’s come across it and doesn’t know, that then becomes a bit more complex, working out some way of both machines and humans describing what these various objects are in the container, and how they relate to each other.”⁶⁰

57 Steven Hill, interview.

58 Torsten Reimer, interview by the authors, 2 May 2019.

59 Torsten Reimer, interview.

60 Torsten Reimer, interview.

2.2.3 EDITIONS

2.2.3.1 A question that came up occasionally in our conversations with researchers was how to deal with practice research outputs that might be developed over an extended period of time, but where a researcher would like to share their findings publicly along the way. Practice research outputs may be published at a certain point and then there may be a need to publish a new edition of the output in the future: new ways of knowing may have become apparent. We have found there is much to be gained from referring to similar situations in other research fields. Drawing on this, we consider that the use of the ‘editions’ form prevalent across other research fields is applicable, where later versions of the same output are noted as 2nd edition, 3rd edition etc., and context is added to the output that illustrates what has changed and why.⁶¹

2.2.3.2 The use of editions is dependent on the extent and nature of the changes made to the research output. If the changes involve additional findings that can be integrated with the previous version of a research narrative, these may be presented in a new edition of the same output. If the research itself has evolved and changed significantly in ways that transform the overall output then a new research output may be presented, referencing the first output and stating that it builds up from the original narrative. We see this approach as beneficial for practice researchers in a number of ways: 1) it enables the audience of a practice research output to be able to reference prior research outputs; 2) it enables researchers to see the multiple iterations of a practice research output and observe the ways within which different outputs can evolve; and 3) it gives practice researchers the freedom to capture their work at a given time and present their research in multiple iterations rather than aiming for one static result from what can often be a very complex process.

⁶¹ If the changes in question address factual mistakes, an erratum or corrigendum can be added as applicable.

2.3 FORMATS AND METADATA

Key points from section

- The use of wide varieties of file formats for practice research outputs can be challenging for research support professionals and can hinder the dissemination and preservation of practice research.
- Discussion and further research is necessary surrounding recommended file formats for digital practice research outputs.
- Formats and metadata for practice research should comply with accessibility provision as set out by governing bodies, ensuring that research is accessible to audiences with disabilities and neurodiversity.
- Consideration ought to be made for the continuing importance of physical formats of practice research.
- For a practice research output, providing appropriate metadata ensures it is interoperable, accessible and discoverable.
- To support the collective research item type ‘project,’ there may be a need to develop new metadata standards, or update existing documentation.

2.3.1 FORMATS

2.3.1.1 Our survey findings demonstrate that the myriad different file formats are one of the most challenging aspects of storing, preserving and sharing practice research outputs. We include here a small selection of responses from research support professionals that were received in response to a question posed on how to improve the situation:

“Standards around file formats need to be implemented.”

“accepted standardised formats.”

“Our preference is an open format, where there is one; if there is no meaningful open format, document the required software and version needed to open the file.”

“Research outputs are too diverse to have a preferred format. We point to the UKDA file format table as a starting point.”⁶²

2.3.1.2 When the same research support professionals were asked a question about what file formats they would prefer for digital practice research outputs, we received the following selection of answers:

“PDF as the main research narrative, then if there are additional files needed, wrap the whole thing up in a .zip file, or link to those extra files in a secure data repository (with a perpetual URL)”

“PDF; despite some issues with the file format security and stability, it can be easily archived and viewed.”

“No preferred format. Ideally it would meet the recommended preservation standards but we don’t enforce that.”

⁶² Respondents, “Practice Research: Research Support Professionals Survey,” 2020.

“PDF/A - easily readable and visible - be better if we could embed videos too”

“none - too heterogeneous”

“We have no preferred formats as such, but for the purposes of FAIR and particularly interoperability and accessibility we encourage researchers to use open file formats, or at least well-established standards that do not require paid for applications to access them.”

“It very much depends on the outputs - we try to ensure that we have the highest quality format possible, especially for images.”

“There is no preferred file format other than preservation requirements, for this reason ZIP is not ideal but sometimes unavoidable. It depends on the type of research and the outcomes of the practice.”⁶³

From our survey respondents we found that the most used file formats for practice research outputs (cited by 45% of respondents) were either PDF or PDF/A, with other popular formats including ZIP⁶⁴ and ‘open formats’.

2.3.1.3 The importance of considering physical practice research output formats came up a number of times during our research for this report, particularly when talking to researchers. For Corby, the creation of physical copies of the Westminster REF 2014 practice research submission was important for posterity, and as a contribution to the archive of research.⁶⁵ The need to explore digitisation of both historic and contemporary practice research outputs that had been first distributed in physical form was also mentioned by research support professionals: “we need to develop a digitisation strategy, i.e. how do we help our academics digitise physical objects - in house, recommendations, equipment?”⁶⁶

2.3.1.4 Collecting, preserving and sharing physical formats of practice research is a challenging scenario. Across our interviews there was a general consensus that practice research can be conveyed in both physical and digital format, and that this decision is usually down to the individual researcher. For Crossick, who was involved in the AHDS (Arts and Humanities Data Service) through his role at the AHRB (Arts and Humanities Research Board), there are logistical challenges in storing practice research, and important questions to consider surrounding the institutional resources that such an undertaking requires: “the AHDS’s job was to collect and help archive material that was coming out of the arts and humanities that wasn’t in digital format. [...] We stored all the databases, also including a lot of art. [...] When AHRC withdrew funding it was very unfortunate. [...] It [The issue of storing physical practice research outputs has] been recognised as an issue for some time.”⁶⁷

63 Respondents, “Practice Research: Research Support Professionals Survey,” 2020.

64 Launched in 1989 by computer scientist Phil Katz, ZIP is a file format for lossless compression of data. The creation of ZIP follows on from PK Pak, a programme written by Katz in 1986 that was compatible with System Enhancement Associates’s (SEA) Arc. After a legal battle, the case was settled to SEA’s advantage and Katz moved on to create ZIP in 1989. The new programme proved to be very popular because it was distributed as freeware and other computer users were frustrated over the outcome of the legal case. See: Hans Wennborg, “Zip Files: History, Explanation and Implementation,” [hanshq.net](https://www.hanshq.net/zip.html#zipintro), 26 February 2020, accessed 29 November 2020, <https://www.hanshq.net/zip.html#zipintro> and Jack Schofield, “Phillip Katz obituary” *Guardian*, 2 May 2000, accessed 29 November 2020, <https://www.theguardian.com/news/2000/may/02/guardianobituaries.jackschofield>.

65 “I think we made four copies of each one. Gave two to each researcher, so each researcher had two copies of it to take away with them. We thought that was really important. Kept one in the research office and one in the library so we had this archive of research growing in the library.” Tom Corby, interview.

66 Respondent, “Practice Research: Research Support Professionals Survey,” 2020.

67 Geoffrey Crossick, interview.

- 2.3.1.5 From our interview, questionnaire and survey respondents, we can summarise that digital formats for practice research outputs are used by the vast majority of practice researchers. Given this, as Borgdorff describes, the biggest challenge in the use of digital formats for practice research outputs is one of sustainability.⁶⁸ For Redhead: “the real clear issue, that there’s going to be, not in 100 years but in ten years, is file formats.”⁶⁹ Redhead illustrates this with reference to electronic music: “there’s work from the ‘80s that is lost or has decayed or can’t be performed, has never been upgraded, and who takes responsibility for that? If music publishers, who should be making money from that, won’t take responsibility for it, then universities, who make no money from it, are definitely not going to. Should the researcher? What happens when they die?”⁷⁰ This is not an issue with an easy solution, for as Borgdorff notes, any contemporary research output format is likely to soon enough become obsolete: “how soon, you mentioned HTML, how soon the current technology is outdated.”⁷¹
- 2.3.1.6 It is not within the scope of this report to explore in detail the many and varied formats that practice researchers use for their research outputs (such as video, sound, website and software application). However what is clear is that whatever format a researcher chooses, they must bear in mind the practical challenges of accessibility for audiences (such as screen readability, file size and duration), long term preservation (including re-formatting the output over time to avoid obsolescence), discoverability, and interoperability.
- 2.3.1.7 UK-wide research assessments across the last decade have helped to clarify recommendations of file formats for practice research outputs. Within the REF 2021 criteria for example, acceptable output formats for the area of the submission that contains the majority of submitted practice research (Main Panel D), are listed as follows: DOI, URL, PDF, USB, physical copy of the book, printed score where appropriate, CD/DVD, Object.⁷² The inclusion of USB sticks in this list recognises that practice research outputs (and those of other research fields) may consist of a collection of files in different digital formats. To ensure the coherence of submissions using USB sticks, the guidance recommends: “It is the responsibility of the submitting HEI to ensure that any digital material submitted is accessible from a range of devices.”⁷³
- 2.3.1.8 Preservation issues pertaining to file formats not only relate to current usage, they also relate to the notion that it is highly unlikely that any one format of research will exist in perpetuity. The ability to convert one format to another format in future is of key importance for long term preservation. As Reimer describes: “a key element of preservation might be preserving it into another format. For that, you need to be able to understand how a digital object is designed, so you can automatically convert it. If you have that understanding, you can also, right now, automatically convert it to other formats that your current users might want to use. That’s a big challenge.”⁷⁴
- 2.3.1.9 Based on the opinion of a number of research support professionals we spoke to, it may be worth exploring PDF as a generally adopted file format for practice research outputs. There are a number of potential benefits to this, such as ease of discoverability and interoperability with existing

68 Henk Borgdorff, interview.

69 Lauren Redhead, interview.

70 Lauren Redhead, interview.

71 Henk Borgdorff, interview.

72 REF 2021 Panel criteria and working methods, 92–97.

73 REF 2021 Panel criteria and working methods, 92.

74 Torsten Reimer, interview.

research systems, the ability to embed many different file formats within a PDF (such as video, sound and image), and the already existing widespread adoption of the format both in the practice research community and across all other research fields. However, representatives from Jisc⁷⁵ detailed strong reservations with the interoperability of PDF files: “Trying to get the information out of a PDF is like trying to get a cow out of a hamburger.”⁷⁶

- 2.3.1.10 Jisc suggests the use of XML⁷⁷ markup language, as it is both interoperable and flexible. Academic and co-founder of the Open Library of Humanities (OLH)⁷⁸ Martin Paul Eve describes XML as a basis for a research output format that then allows for other formats to be created from it. Eve notes that unbeknownst to many, XML is already widely employed: “It’s standard for anything that’s published anywhere, actually. Just that most publishers don’t expose the XML. So, the HTML online version is generated on the fly by transformation from the XML, so the XML is the definitive source document with semantic encoding. The workflow also puts the XML through Adobe InDesign to produce the PDF, so that’s how they’re all kept in sync. When you visit the HTML page live, it does a re-rendering of the XML. The PDF is generated at production time.”⁷⁹
- 2.3.1.11 One potential solution to the lack of interoperability of the PDF format mentioned by Jisc is proposed by an action point included in the Budapest Open Access Initiative of 2012: “3.7. OA repositories should provide tools, already available at no charge, to convert deposits made in PDF format into machine-readable formats such as XML.”⁸⁰ However, we note that currently these tools are not in widespread usage and were not mentioned by any of our interviewees or questionnaire respondents.
- 2.3.1.12 Alighting upon an agreed primary format for practice research is not likely to occur in the near future. As our respondents have indicated, there are advantages and disadvantages for each format dependent on the researcher, machine or audience seeking to interact with them. As things stand, the PDF file format is one of the most commonly used for practice research outputs, by both practice researchers and their audiences, and this is unlikely to change in coming years. As Eve observes: “They’ve been saying this for decades. ‘The PDF’s dead.’ You know, everyone I know uses a PDF.

75 Jisc defines itself as “the UK higher, further education and skills sectors’ not-for-profit organisation for digital services and solutions.” It has used “Jisc” as its name since 2012. Previously JISC was an abbreviation that stood for “Joint Information Systems Committee.” See: Jisc, accessed 1 October 2019, <https://www.jisc.ac.uk>.

76 Jisc representatives, interview by the authors, 28 February 2019.

77 The Extensible Markup Language (XML) was developed by an XML Working Group under the auspices of the World Wide Web Consortium (W3C) in 1996. It “is a simple text-based format for representing structured information: documents, data, configuration, books, transactions, invoices, and much more. It was derived from an older standard format called SGML (ISO 8879), in order to be more suitable for Web use. XML is one of the most widely-used formats for sharing structured information today: between programs, between people, between computers and people, both locally and across networks.” See: “XML essentials,” on World Wide Web Consortium (W3C), accessed 30 November 2020, <https://www.w3.org/standards/xml/core>.

78 “The Open Library of Humanities (OLH) is a charitable organisation dedicated to publishing open access scholarship with no author-facing article processing charges (APCs). We are funded by an international consortium of libraries who have joined us in our mission to make scholarly publishing fairer, more accessible, and rigorously preserved for the digital future.” See: “About,” Open Library of Humanities, accessed 30 November 2020, <https://www.openlibhums.org/site/about>.

79 Martin Paul Eve, interview by the authors, 30 April 2019.

80 “Ten years on from the Budapest Open Access Initiative: setting the default to open,” Budapest Open Access Initiative, 12 September 2012, accessed 30 November 2020, <https://www.budapestopenaccessinitiative.org/boai-10-recommendations>.

I use a PDF. It's portable."⁸¹ However, as both Jisc and Eve observe, there are significant problems with the machine-readability and transferability of the PDF across wider research systems. Using XML as a basis for a research output can allow the generation of PDF files (and other formats), and this may prove one of the most appropriate and sustainable approaches for the field of practice research to explore moving forward.

- 2.3.1.13 Attempting to recommend specific formats for practice research outputs is challenging and requires substantial research and consultation. To begin the process of solving these challenges we consider that an independent practice research advisory body (see our first report *What is practice research? 1.7 Looking forward*) can develop recommendations for practice research output file formats, exploring XML/PDF as a starting point and working in consultation and collaboration with those that set standards for research data file formats such as the UK Data Service,⁸² the National Archives⁸³ and Library of Congress,⁸⁴ and organisations and researchers who are currently working to solve the challenges of interoperable research formats (such as Jisc and the Open Library of Humanities).

81 Martin Paul Eve, interview.

82 "Format Your Data," UK Data Service, accessed 29 November 2020, <https://www.ukdataservice.ac.uk/manage-data/format.aspx>.

83 "File formats for transfer," The National Archives, accessed 29 November 2020, <http://www.nationalarchives.gov.uk/information-management/manage-information/digital-records-transfer/file-formats-transfer>.

84 "Recommended Formats Statement," Library of Congress, accessed 29 November 2020, <https://www.loc.gov/preservation/resources/rfs/index.html>.

2.3.2 METADATA

- 2.3.2.1 Metadata is “data that provides information about other data.”⁸⁵ Metadata standards delineate which information is needed for research outputs to be discoverable and reusable, and as such are fundamental for the technical sharing of practice research. Within the UK, the Digital Curation Centre (DCC) offers guidance around metadata as well as a list of standards.⁸⁶
- 2.3.2.2 While there are discipline-specific metadata standards, Dublin Core™ emerged from our questionnaires and surveys as the standard most widely used by research support professionals dealing with practice research. When asked which persistent identifiers and metadata are needed for practice research, Institutional Repository Librarian Sarah Barkla responded: “ORCID and DOIs. Metadata should be DC [Dublin Core]⁸⁷ at a minimum.”⁸⁸
- 2.3.2.3. When considering how to implement a research item type such as ‘project’ across global research systems, exploring how metadata standards will apply is crucial, as Scholarly Communications Librarian Tom Cridford and Head of Research Development Christie Walker observe: “of particular importance are multiple date and location fields—for instance where a piece of practice research is exhibited/performed/screened in multiple locations and at different times, we wouldn’t want separate records for each of these. It is also important to have a multiplicity of roles available to choose from. Finally, a way of representing relations between records/research is also very important.”⁸⁹
- 2.3.2.4 Attributing collaborators within practice research outputs is difficult within currently existing metadata standards as Evans and Renner explain: “Contributor information is poorly captured for this type of research. [...] The use of controlled lists with a narrow view of research roles actually hinders attempts to give practice-based researchers credit for their work, as if they don’t naturally fall into one of these categories they *cannot* be included as a contributor in these schemas.”⁹⁰
- 2.3.2.5 Defining a potentially appropriate set of metadata, persistent identifiers and additional information fields for a ‘project’ item type may help to improve its visibility and interoperability. Derived from our questionnaire and survey respondents, we found there are a number of key metadata fields that may be considered:
1. DOI (Digital Object Identifier). *Persistent identifiers have an important impact on the travelling of metadata across research systems.*
 2. Title
 3. Author/s

85 “Metadata,” Merriam-Webster Dictionary online, accessed 30 November 2020, <https://www.merriam-webster.com/dictionary/metadata>.

86 “Disciplinary Metadata,” Digital Curation Centre, accessed 28 November 2020, <https://www.dcc.ac.uk/guidance/standards/metadata>.

87 Dublin Core metadata standard, composed of a set of 15 properties to describe a range of elements, was established in 1995 and was endorsed in ISO Standard 15836:2009 of February 2009 [ISO15836]. “Dublin Core™ Metadata Element Set, Version 1.1: Reference Description,” Dublin Core™ Metadata Initiative, accessed 28 November 2020, <https://www.dublincore.org/specifications/dublin-core/dces>.

88 Sarah Barkla, Oxford University, response to “Practice Research: Questionnaire for Research Support Professionals,” 2019.

89 Tom Cridford and Christie Walker, Royal College of Art, response to “Practice Research: Questionnaire for Research Support Professionals,” 2019.

90 Jenny Evans and Tom Renner, questionnaire response.

4. A c. 300-word summary statement. *We reference the REF guidance here, but this length is also average for other research forms. It is vital to have a leader piece of summary information for machine-readability and accessibility.*
5. Keywords (machine readable)
6. Year of publication or range of years
7. Venue, location or publisher (if applicable)
8. Collaborators (if applicable)
9. Copyright and licensing information

2.3.2.6 Cross-sector research assessments can be highly effective ways to implement developments in metadata standards. As Hill observes, instituting developments to metadata standards in research assessments can then lead to their adoption as global standards: “The REF is actually not a bad place to start thinking about the kind of standards that we might expect to see, and that then becomes an exemplar that then other countries might look at and think, ‘we need an international agreement or an international body to think about this.’”⁹¹

2.3.2.7 Practice research datasets may form a related part of a practice research output, and an increase in the sharing of datasets as part of practice research would provide substantial benefits for the wider research community. In the last decade there have been a number of developments surrounding the sharing and interoperability of research datasets. In 2014, the Data Citation Synthesis Group identified eight data citation principles,⁹² which are widely referenced and employed across institutional repositories. In addition, the UK Research and Innovation (UKRI) Common Principles of research data provide guidance and standards in this area.⁹³

2.3.2.8 There are excellent examples of community-led repository development projects surrounding metadata for practice research outputs. Almost all of these have arisen from the institutional repository community in the UK, which has proven itself to be a supportive and nurturing environment for the sharing of practice research outputs. Example projects include Kultur (2007–2009),⁹⁴ Kultivate (2011)⁹⁵ and Defiant Objects (2011–2013).⁹⁶

2.3.2.9 Advocacy for the international development of metadata standards that more accurately match the needs of practice researchers will be beneficial by increasing the discoverability and interoperability of practice research outputs in society. As one of our survey respondents said: “The issue isn’t with the software—it’s that the standards don’t work to reflect what we capture.”⁹⁷

91 Steven Hill, interview.

92 M. Martone, ed. *Data Citation Synthesis Group: Joint Declaration of Data Citation Principles* (San Diego, CA: FORCE11, 2014). <https://doi.org/10.25490/a97f-egyk>.

93 “Your responsibilities if you get funding,” UKRI, accessed 29 November 2020, <https://www.ukri.org/apply-for-funding/before-you-apply/your-responsibilities-if-you-get-funding/making-research-data-open/>.

94 “About the Project,” Kultur, accessed 29 November 2020, <http://kultur.eprints.org>. For further information see: Stephanie Meece, Amy Robinson, and Marie-Therese Gramstadt, “Engaging Researchers With the World’s First Scholarly Arts Repositories: Ten Years After the UK’s Kultur Project,” *New Review of Academic Librarianship* 23, no. 2–3 (2017): 209–232. <https://doi.org/10.1080/13614533.2017.1320767>.

95 “Kultivate Project,” VADS, accessed 29 November 2020, <https://vads.ac.uk/customizations/global/pages/kultur2group/projects/kultivate/index.html>.

96 “About,” Defiant Objects: Non-standard research outputs in institutional repositories, accessed 29 November 2020, <https://defiantobjects.wordpress.com>.

97 Respondent, “Practice Research: Survey for Research Support Professionals,” 2020.

2.4 PEER REVIEW

Key points from section

- Peer review is of utmost importance for the field of practice research: it acts to provide editorial assistance and assurance of shareability, preservability and interoperability.
- Peer review can ensure that practice research meets the standards of the research community, and for audiences and funders it can build up trust in the overall body of practice research outputs.
- Current peer review systems for research publication, drawn from traditional science models, do not function well for the majority of practice research.
- Good practice in peer review of practice research for publication can be found in a small array of journals.
- A feasibility study exploring the potential of a model for peer review of practice research publication, linked to an Open Library of Practice Research (OLPR), may be one route towards exploring the benefits and challenges of peer review and practice research.

2.4.1 PEER REVIEWING PRACTICE RESEARCH FOR PUBLICATION

- 2.4.1.1 From the researchers, research support professionals, policymakers and funders that we interviewed, there was a clear recognition that expert review of practice research is critical for the long term success of the field. The predominant way to achieve this is through peer review for publication.
- 2.4.1.2 From our interviews and research, we encountered interesting examples of peer review processes for practice research publication in journals, including the *Journal of Embodied Research (JER)*,⁹⁸ *Screenworks*,⁹⁹ and the *Journal for Artistic Research (JAR)*.¹⁰⁰ However, despite these examples, opportunities for peer review for most practice research outputs are few and far between, mainly because of a lack of publication avenues, as Borgdorff states: “there is a need for more journals in the field.”¹⁰¹
- 2.4.1.3 It is important to note that on occasion practice research outputs can be peer-reviewed and published in traditional avenues, as dance researcher ‘Funmi Adewole mentions, citing the example of *African*

98 *JER (Journal of Embodied Research)*, accessed 24 November 2020, <https://jer.openlibhums.org>.

99 *Screenworks* – the peer-reviewed online publication of practice research in film and screen media. Accessed 30 November 2020, <http://screenworks.org.uk>. The example of Screenworks was cited in email correspondence with practice researcher Joanna Callaghan.

100 *JAR (Journal for Artistic Research)*, accessed 24 November 2020, <https://www.jar-online.net>.

101 Henk Borgdorff, interview.

Theatre Review 17: “where someone found a happy medium by doing a photo essay, so they had a photograph frame by frame of the important aspects of the performance and then wrote.”¹⁰²

- 2.4.1.4 The *Journal for Artistic Research* (JAR) provides an informative case study when thinking through potential peer review for publication scenarios for practice research outputs in England. JAR is an international Open Access journal¹⁰³ that “disseminates artistic research from all disciplines. JAR invites the ever-increasing number of artistic researchers to develop what for the sciences and humanities are standard academic publication procedures.”¹⁰⁴ For JAR, who publish regular calls for non-thematic issues, the peer review process is ‘single-blind’ because “In artistic research a ‘double blind’ review process is not workable since artwork often carries the ‘signature’ of those who created it.”¹⁰⁵ JAR issues detailed guidance to its peer reviewers,¹⁰⁶ who are drawn from a wide network of expert peers whose disciplinary areas may relate to the work. Peer reviewers are allocated to review specific submissions by a Peer Review Editor.
- 2.4.1.5 For JAR, the benefits of peer review for publication go far beyond assessment or validation of new knowledge: “It builds and expands our community of committed researchers and reviewers via a deep engagement with each other’s work, particularly across different international and institutional contexts. It invites understanding between researchers from related disciplines, both in academia and not, broadening the areas in which artistic research is known. Peer review in JAR also provides authors with detailed, constructive feedback to aid with developing their research’s potential.”¹⁰⁷
- 2.4.1.6 The *Journal of Embodied Research* (JER) is a peer-reviewed Open Access journal that operates across disciplinary areas. The journal does not charge author fees and publishes video articles on a continuous basis, with articles made available as soon as they are ready. JER is hosted and published by the Open Library of Humanities (OLH). JER operates using an XML basis for publication, and utilises embedded videos, with aggregation across a number of major research indexes including Google Scholar.¹⁰⁸ JER operates open and flexible peer review for publication, using a ‘single-blind’ peer review process, meaning that reviewers remain anonymous, with support from an editorial team.¹⁰⁹
- 2.4.1.7 Another example of practice research peer review for publication that we came across during our research is the *Journal of Visualized Experiments* (JoVE).¹¹⁰ This peer-reviewed scientific journal

102 ‘Funmi Adewole, interview with the authors, 10 February 2020.

103 Other international peer-reviewed journals focusing on practice research in the arts include: the *Nordic Journal for Artistic Research* (<https://www.visjournal.nu/>) and *RUUKKU* (<http://ruukku-journal.fi/en>).

104 See: “About,” *Journal for Artistic Research*, accessed 30 November 2020, <https://www.jar-online.net/journal-artistic-research>.

105 See: “Peer Reviewing and Artistic Research,” *Journal for Artistic Research*, accessed 30 November 2020, <https://www.jar-online.net/peer-reviewing-and-artistic-research>. For an in depth examination of the peer review processes of JAR see: Michael Schwab, “Peer-Reviewing in the ‘Journal for Artistic Research’,” in *Evaluating Art and Design Research: Reflections, Evaluation Practices and Research Presentations*, ed. Walter Ysebaert, Binke van Kerckhoven (Brussels: ASP Academic and Scientific Publishers, 2018), 52–59.

106 See: “Journal for Artistic Research Peer Review Form,” *Journal for Artistic Research*, accessed 30 November 2020, https://jar-online.net/sites/default/files/2019-12/JAR_Peer_Review_Form%202019.pdf.

107 See: “Peer Reviewing and Artistic Research,” *Journal for Artistic Research*, accessed 30 November 2020, <https://www.jar-online.net/peer-reviewing-and-artistic-research>.

108 See: “About,” *Journal of Embodied Research*, accessed 30 November 2020, <https://jer.openlibhums.org/about>.

109 See: “Editorial Policies,” *Journal of Embodied Research*, accessed 30 November 2020, <https://jer.openlibhums.org/about/editorialpolicies>.

110 See: *JoVE*, accessed 30 November 2020, <https://www.jove.com/about>.

publishes experimental methods in video format. The platform has a wide audience.¹¹¹ JoVE is an example of how to communicate professional practice in research outputs, and how to render the format that it is presented in both discoverable and interoperable. Submissions to JoVE can be in one of two categories. In the first category: “JoVE produces the video portion. When we produce a video, first we have the authors submit a written manuscript. This manuscript is then sent out to reviewers; revised by the authors, incorporating reviewer and editor comments; and, if accepted, a script and storyboard are generated by JoVE based on the revised manuscript for filming. After filming and post-production, both the video and a final written protocol are published on our site. Since JoVE controls the content and production of these videos, they are not sent out for peer review.”¹¹² In the second category: “authors have access to the tools necessary to produce their own videos. These author-produced videos are reviewed along with the author’s written manuscript. If revisions are necessary, authors may be asked to re-shoot and edit their video and text manuscript based on reviewer, editor, or video producer comments.”¹¹³ The model that JoVE employs recognises that conveying professional practice in an effective and interoperable way is a challenging process, and that through collaborative workflows that include peer review with editorial assistance, new manners of communicating practice as the significant method of a research output are both possible, and in substantial demand.

- 2.4.1.8 As Chatzichristodoulou notes, due to the fact that practice research often exhibits a multiplicity of methods, a transdisciplinary nature, and can come in different formulations and formats, the peer review process for publication may be harder and more involved.¹¹⁴ For Chatzichristodoulou what is required is “relevant guidelines, and we need to re-educate our peer review body.”¹¹⁵ Chatzichristodoulou went through this process when she took over as Editor in Chief of the *International Journal of Performance Arts and Digital Media*¹¹⁶ which amongst more traditional types of research also now welcomes submissions of practice research.
- 2.4.1.9 There are practical issues for peer reviewing practice research for publication concerning the continued developments in form and file formats, and in how practice and documentation as a proxy for practice function. However, with the development of guidance, discussion and sharing of good peer review practice across the community, as well as additional funding and support, it is clear that many of these issues can be resolved.
- 2.4.1.10 One potentially fruitful example to consider when developing peer review for publication guidance for practice research is the supervision and examination of practice research PhDs in England. Generally operating on the basis of review points along the way before a final examination at the end (with potential for revision), this process can provide both the fundamental benefits of peer review for publication (such as quality assurance, editorial and ethics guidance, creating discourse within the field), and help to provide an important bridge from professional practice to practice research where one is required.

111 “More than 7,000,000 researchers and students use JoVE, and each article is viewed nearly 2,000 times a year on average.” See: “For Authors,” *JoVE*, accessed 30 November 2020, <https://www.jove.com/authors/overview>.

112 See: “Peer Review,” *JoVE*, accessed 30 November 2020, <https://www.jove.com/authors/peer-review>.

113 See: “Peer Review,” *JoVE*, accessed 30 November 2020, <https://www.jove.com/authors/peer-review>.

114 Maria Chtazichristodoulou, interview.

115 Maria Chtazichristodoulou, interview.

116 See: “List of Issues,” *International Journal of Performance Arts and Digital Media*, accessed 30 November 2020, <https://www.tandfonline.com/loi/tpdm20>.

2.4.1.11 It is important to note that despite the generally positive attitude of our respondents toward peer review for publication of practice research, and the benefits it can bring, which include: quality assurance, consideration of research ethics, accessibility for audiences with disabilities, discourse in the field, assurance of research interoperability and discoverability, and practical editorial areas such as typesetting and design of research outputs, peer review is not always the best mechanism to judge the quality of research. There are numerous debates across the research landscape about peer review for publication, including whether a consideration of the extent of uptake and use by the academic community over time is a more appropriate indicator for quality. What these discussions indicate is that practice research, as a relatively new field, has the potential to precipitate the revitalisation of systems for academic peer review publication.

2.4.2 EXPLORING THE FUTURE OF PEER REVIEW OF PRACTICE RESEARCH PUBLICATION

- 2.4.2.1 As we have observed, there are relatively few avenues for peer review of practice research for publication at the present time. Those examples that do exist, such as the *Journal of Embodied Research (JER)* and *Screenworks*, are focused in very specific subject and disciplinary areas of the field. From our interviews with researchers we heard that there is a pressing need for peer review for publication opportunities for the much wider community of practice researchers.
- 2.4.2.2 With each of our researcher interviewees we explored what the future of peer review in the field of practice research might look like, and whether a new model for peer review of practice research publication might help address some of the challenges facing practice researchers in sharing their outputs. For Corby: “It would be a huge step. I think it would be a constructive thing.”¹¹⁷ For Biggs: “interdisciplinarity and transdisciplinarity are the way to go to avoid the isolationist position.”¹¹⁸ For Nelson: “I think in principle it’s a very good idea.”¹¹⁹
- 2.4.2.3 As Eve notes, there are substantial challenges and risks in creating a new avenue for peer review of practice research publication: “I think one of the challenges for a new emergent field is you want to change a form of dissemination and the media form of dissemination at the same time. Do you really want to change the structure of evaluation to something that isn’t recognised by those outside that space as well? [...] Or do you want to have something that gives a stamp of authority, that looks like peer review, then allows you to inject yourself into mainstream discourse and work iteratively over time to change what those evaluation processes might look like to be more appropriate?”¹²⁰
- 2.4.2.4 One role that a future model of peer review for practice research might provide is to ensure that published practice research outputs meet the standards of the research community. Nelson observes: “I like the idea very much, and it would be valuable if people were to get some sort of kitemark as to the worth of their work.”¹²¹ A peer review process could provide advocacy for practice research across the research sector, in much the same way as publication through a journal does. That said, how peer review functions in the field of practice research deserves careful consideration and further in depth discussion which is outside of the scope of this report.
- 2.4.2.5 Some of our interviewees raised concerns about a new peer review model for publication of practice research, as it might potentially do detriment to the process of traditional journals embracing practice research, and also hinder the founding of new practice research journals.¹²²
- 2.4.2.6 Perhaps one of the greatest challenges for a new peer review model for publication of practice research would be in exploring the differences between judgements of the quality of research and the aesthetic qualities of practice. For Hill: “we have to be very clear with our REF panels that what they’re doing is evaluating the research, they’re not making an aesthetic judgement about the

117 Tom Corby, interview.

118 Michael Biggs, interview.

119 Robin Nelson, interview.

120 Martin Paul Eve, interview.

121 Robin Nelson, interview.

122 Maria Chatzichristodoulou, interview.

output. I think when it comes to your peer review process here [...] the peer review is really about the narrative, isn't it? It really is about the process of research, has the research been done properly to the sorts of standards that the community expect?"¹²³

- 2.4.2.7 There are a number of potential routes through which a model of peer review for practice research publication might function, drawing on the existing examples of peer review of practice research publication that we have mentioned, and working closely with organisations such as the Committee on Publication Ethics (COPE) to develop standards.¹²⁴ The reviewing of outputs may operate on an ongoing basis. The peer review process can be inclusive to submissions from inside and outside of academia in England, offering a nexus for advice, support, constructive critique and recommendations for practice researchers. Peer reviewers and editors could be selected by an overarching editorial board, based on their appropriateness for given submissions and be drawn from a diverse catchment of researchers in the wider field. The lead editorial board and governance structures could be reviewed on a yearly basis, and the organisation could also include a network of practice research PhD students. This peer review model for practice research for publication may be intrinsically linked with an Open Library of Practice Research (OLPR, see 2.5.4) and could be developed and overseen by an independent practice research advisory body (see our first report *What is practice research? 1.7 Looking forward*).
- 2.4.2.8 A model for peer review of practice research publication could ensure the integrity and interoperability of practice research outputs to both global research systems and to a potential Open Library of Practice Research (OLPR), which we explore in the following section in this report 2.5.4 *Exploring the Open Library of Practice Research*. As Reimer describes: “Practically speaking, I think, from our [the British Library’s] perspective [...] it would address my number one concern, because it would give us a filter level where we can then say, ‘We take everything in that has come through this process. If there is something wrong, it’s not our place as a national library to judge it.’ [...] We couldn’t, on our own, do that filtering, but it would then allow us to explore ways to preserve, and make accessible.”¹²⁵
- 2.4.2.9 Gaining support and funding to develop a new model for peer review of practice research publication linked to a potential OLPR would require a sustained effort by those who advocate for practice research. As well as traditional funding models, new scholarly publishing models for funding have developed in recent years, such as the Open Library of Humanities (OLH), which at the time of writing consists of 27 journals that are funded by approximately 250 libraries worldwide. As Eve observes: “Logical assumptions about economics in scholarly communications don’t necessarily hold true, but you have to try it to find out.”¹²⁶

123 Steven Hill, interview.

124 “COPE’s mission is built around three core principles: providing practical resources to educate and support our members; providing leadership in thinking on publication ethics; offering a neutral, professional voice in current debates.” See: “Strategic Plan,” COPE, accessed 30 November 2020, <https://publicationethics.org/about/cope-strategic-plan>.

125 Torsten Reimer, interview.

126 Martin Paul Eve, interview.

2.5 STORING AND PRESERVING PRACTICE RESEARCH OUTPUTS

Key points from section

- Substantial challenges exist in storing and preserving practice research outputs. These include a lack of: an agreed collective item type; interoperability of file formats and research item types; metadata standards.
- Guidance and standards for storing and preserving practice research outputs are needed to prevent scenarios such as the ‘REF graveyard’.
- Institutional repositories will continue to play a fundamental role in storing and preserving practice research outputs.
- Exploring the feasibility and potential of an Open Library of Practice Research (OLPR), for harvesting and hosting peer-reviewed practice research publications, may be one avenue to consider in addressing the challenge of storing and preserving practice research outputs.
- The OLPR may act as an important resource for both current and future practice researchers.

2.5.1 PRACTICE RESEARCH AND THE ARCHIVE

2.5.1.1 Considering the long-term preservation of any research output is a complex process: things that in the present day are considered as best practice for preservation standards may be completely disregarded in future decades as Corby notes: “we could be turning back the clock significantly in the next 50 years because of the pressures of climate change and energy resource issues. There might not be an internet.”¹²⁷ In any conversation surrounding the preservation of practice research outputs, funding and support ought to be given not just for conversations about short and medium term preservation, but also in consideration of hundreds of years, as Adewole points out.¹²⁸

2.5.1.2 The strategic storage and preservation of practice research outputs ought to be planned in the long term —beyond the internet and cloud storage. This plan must involve access as a fundamental co-strategy. As Julian Morley observed in his talk at the Preservation and Archiving Special Interest Group (PASIG) conference in 2019 “preservation is meaningless without access.”¹²⁹

2.5.1.3 For Adewole, the issue of preserving the practice components of practice research is critical, and can drive decisions of publication avenues and file formats for practice research toward established traditional routes: “I think until the [preservation] issue is solved people have to have a text-based version of their work.”¹³⁰

127 Tom Corby, interview.

128 ‘Funmi Adewole, interview.

129 Susan Kung (@SusanKung), “Preservation is meaningless without access. —Julian Morley of Stanford #pasig2019 #digipres,” Twitter, 14 February 2019, 8:35 p.m., <https://twitter.com/SusanKung/status/1096145985884033025>. Also see: Preservation and Archiving Special Interest Group, accessed 30 November 2020, <https://preservationandarchivingsig.org>.

130 ‘Funmi Adewole, interview.

- 2.5.1.4 For Cooper, a pragmatic approach to preservation is important: “one just does the best you can, with the current technology.”¹³¹ This approach accepts that discussions around the preservation and sustainability of particular file formats are vital, but these conversations ought not hinder the progression of research itself.
- 2.5.1.5 Partnerships and collaborations with national institutions such as the British Library and the National Archives are some of the best ways to achieve coherent guidance surrounding sustainable file formats and the preservation of practice research outputs. The practice research community can learn from current international standards for archival preservation such as ISAD(G)¹³² and consider how they may adopt or adapt these standards to ensure the preservation and accessibility of practice research outputs in posterity. Exploring the creation and advocacy of these standards may prove an important role for an independent practice research advisory body (see our first report *What is practice research?* 1.7 *Looking forward*).
- 2.5.1.6 As we heard in interviews and from our questionnaire responses, many practice researchers are using commercial platforms for hosting their research, which often do not have long-term preservation strategies.¹³³ As sports and performance researcher Broderick Chow states: “technology moves quite quickly and I think we’re at a stage right now where some of the formats we have are really excellent for displaying practice research. And the software and functionality for video, for instance, is really really good. Then the problem is that a lot of these are commercial platforms and they might change and they might become something else. So how they endure through time is always reliant on those kinds of corporate bodies.”¹³⁴
- 2.5.1.7 The challenges of preserving practice research outputs are perhaps best demonstrated in the scenario of the ‘REF graveyard’ (see our first report *What is practice research?* 1.3.3.10). This is where practice research that has been submitted for REF assessment becomes almost completely inaccessible after the exercise has been completed. Some issues that cause this include the inaccessibility of file attachments, lack of interoperable publication metadata, and poor online discoverability. As well as debates surrounding the need for indexing and interoperability of the REF assessed material, there have been numerous issues arising from links out from practice research output citations that no longer resolve. Hill thinks the problem “partly relates to some of the funding and the difficulty in maintaining the websites and so on that have been created, and partly relates to the fact that we don’t have a system for the long-term preservation of this research.”¹³⁵
- 2.5.1.8 Repository professionals acknowledge the difficulty of working with pieces of digital information stored across different online platforms. As Cridford and Walker put it: “Work that was done to present practice research outputs in REF 2014 has, in many cases, been lost or has become difficult to find across the sector and may be very different from what surfaces in an institutional repository, on an artist’s website, etc. The RCA does not currently provide advice in this area but is seeking to

131 Victoria Cooper, interview.

132 “ISAD(G): General International Standard Archival Description - Second edition,” ICA – International Council on Archives, accessed 29 December 2020, <https://www.ica.org/en/isadg-general-international-standard-archival-description-second-edition>.

133 For further information on the hosting of practice research outputs on commercial platforms, see 2.6 *Sharing practice research* in this report.

134 Broderick Chow, interview by the authors, 6 March 2020.

135 Steven Hill, interview.

explore preservation and representation of practice research post REF 2021 in more detail.”¹³⁶ As one respondent to our research support professionals survey notes: “I hope we don’t lose as much of the REF submitted practice materials this time as we seem to have lost from last time.”¹³⁷

136 Tom Cridford and Christie Walker, questionnaire response.

137 Respondent, “Practice Research: Research Support Professionals Survey,” 2020.

2.5.2 INSTITUTIONAL REPOSITORIES

2.5.2.1 85% of research support professionals who responded to the survey question “Is practice research more or less complex to deal with than traditional research forms in your day-to-day work?” observed that practice research is more complex to deal with than traditional research outputs.

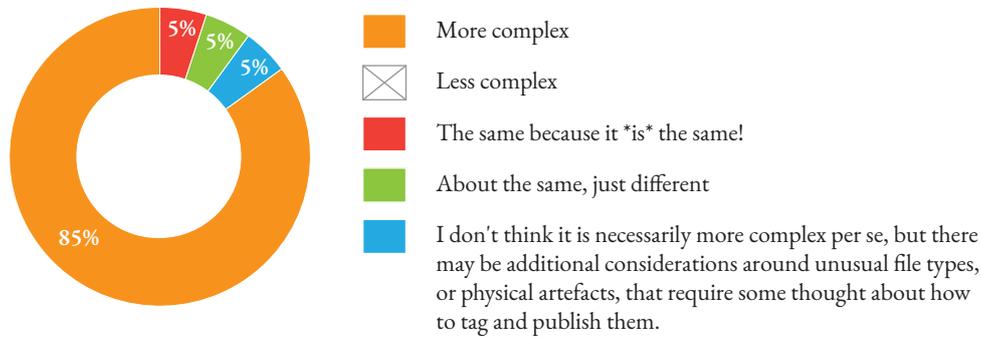


Fig. 1. Responses to the question “Is practice research more or less complex to deal with than traditional research forms in your day-to-day work?” in Practice Research – Research Support Professionals Survey, 2020.

2.5.2.2 From our survey respondents we learn that the two biggest challenges facing research support professionals dealing with practice research were ‘a lack of consistent overall guidance’ (30%) and ‘multi-part outputs (and how to host them)’ (30%).

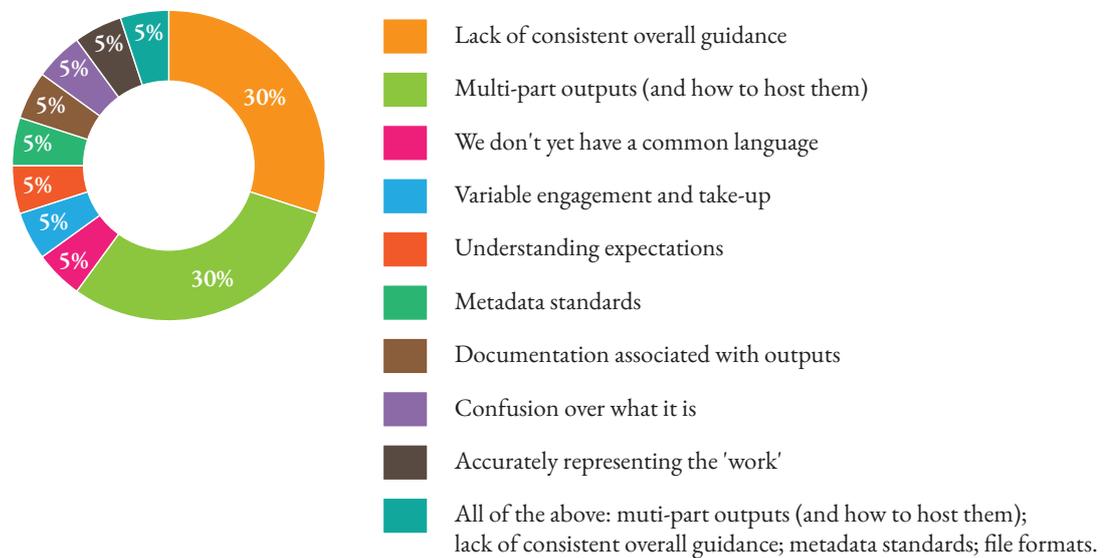


Fig. 2. Responses to the question “What is the biggest challenge for you when engaging with practice research?” in Practice Research – Research Support Professionals Survey, 2020.

- 2.5.2.3 The most widely adopted way of storing practice research in institutions is through the ‘institutional research repository.’¹³⁸ There is a thriving support network of institutional repository administrators and managers that exists across mailing lists,¹³⁹ conferences, and symposia, and it is from these communities that many of the most important discussions surrounding the practical issues with practice research and institutional repositories have emerged. From a meet up at Repository Fringe in 2018 (which included around 25 members of the UK institutional repository community), we learnt that the most challenging aspects of hosting practice research outputs in institutional repositories are: metadata; sharing of good practice in the repository community; ‘fitting’ practice research into repositories designed around traditional research formats; the need for a ‘collection’ item type for practice research; discoverability; file size issues; copyright, licenses and intellectual property; how to handle revisions of work; advocacy for Open Access; representing physical practice research outputs; application of persistent identifiers.¹⁴⁰
- 2.5.2.4 There are a wide variety of softwares in use across institutional repositories in England, in many different and bespoke combinations. From our questionnaire and survey respondents, we heard of the following: Blacklight,¹⁴¹ DSpace,¹⁴² EPrints, Fedora Commons 3,¹⁴³ Haplo, Pure and Symplectic Elements.¹⁴⁴ A full list of repository softwares in use across the UK can be found on the Jisc OpenDOAR website.¹⁴⁵
- 2.5.2.5 The most common institutional repository software in use in the UK is EPrints,¹⁴⁶ a free and open-source software developed by the University of Southampton.¹⁴⁷ For Cridford and Walker at the Royal College of Art (RCA), EPrints was the most appropriate software for their repository for the following reasons: “Firstly, it is widely used in the sector so is well supported and there is an established user community. Secondly, EPrints offers a hosted service which means that technical support is provided by an external provider - in our case the University of Southampton. Finally, EPrints is highly customisable; this is important with regards to practice based research.”¹⁴⁸

138 An institutional repository is a digital collection of full texts and metadata which are hosted, preserved, and disseminated via systems that meet international standards of metadata, discoverability and interoperability.

139 UKCoRR (United Kingdom Council of Open Research and Repositories) is an independent body for repository managers, administrators, and staff. UKCoRR maintains a mailing list that enables repository professionals to exchange ideas and questions. See: UKCoRR (website), accessed 30 November 2020, <https://www.ukcorr.org>. London Open Access Network, Jisc Repositories and Research Dataman mailing lists are other examples of forums and mailing lists for repository and Open Access professionals. While working on these reports we benefited greatly from members of these groups who generously dedicated their time and support to our project.

140 Launched in 2008, Repository Fringe is an annual conference for repository professionals and those interested in Open Access to exchange ideas and expertise, and to discuss latest policy developments and technological advances in the profession. It generally takes place at the University of Edinburgh in August.

141 Blacklight, accessed 30 November 2020, <https://projectblacklight.org>.

142 DSpace, accessed 30 November 2020, <https://duraspace.org/dspace>.

143 “Fedora 3.8 Documentation,” Lyrasis Wiki, accessed 30 November 2020, <https://wiki.lyrasis.org/display/FEDORA38/Fedora+3.8+Documentation>.

144 Symplectic, accessed 30 November 2020, <https://www.symplectic.co.uk>.

145 “OpenDOAR: Browse by Country and Region,” Jisc, accessed 30 November 2020, https://v2.sherpa.ac.uk/view/repository_by_country/United_Kingdom.software_name.html.

146 OpenDOAR, “Browse by Country and Region– United Kingdom,” Jisc, accessed 29 December 2020, https://v2.sherpa.ac.uk/view/repository_by_country/United_Kingdom.default.html.

147 EPrints is an Open Source institutional repository software that was developed by the University of Southampton in 2000. See: EPrints Services, accessed 30 November 2020, <https://www.eprints.org/uk>.

148 Tom Cridford and Christie Walker, questionnaire response.

- 2.5.2.6 As Scholarly Communications Manager Stephanie Meece observes, EPrints led the field of repository software developers in attempting to make repositories that could work for all types of researchers in the academy, including practice researchers. This was achieved initially through development projects such as Kultur.¹⁴⁹ However in recent years there has been less development of tools for practice research deposits: “that work was completed 11 years ago and has not been updated since. [...] EPrints+Kultur could conceivably be updated and improved, with an investment of time and money, to make it fulfil more of the expectations of researchers.”¹⁵⁰
- 2.5.2.7 A number of our survey respondents mentioned that they were in the process of migrating their institutional repository from EPrints, or were using EPrints in combination with other platforms including Pure¹⁵¹ and Figshare. For Academic Engagement Specialist Helen Bell and Research Support Librarian Liam Bullingham at Edge Hill University, who have recently migrated from EPrints to a combination of Pure and Figshare, Pure was chosen because it is a CRIS (Current Research Information System),¹⁵² enabling “a centralised infrastructure for the university’s research information.”¹⁵³ Figshare was specifically chosen to aid in the presentation of practice research outputs: “One of the anticipated benefits is to be able to present practice research in a more visual way and place in proximity the multifaceted nature of these outputs whilst retaining a final quality record of the non-textual output on Pure.”¹⁵⁴
- 2.5.2.8 For Evans, who uses the Haplo open source repository platform¹⁵⁵ at the University of Westminster, there have been substantial recent developments that aid in the hosting of practice research outputs: “We worked with Haplo as a development partner to build repository software that supports the capture of non-text based and text-based outputs. [...] We have solved a number of issues relating to practice research – our repository enables non-text templates which use wording such as creator (rather than author), collaborator, description (rather than abstract) – and it enables the creation of a portfolio which draws together individual output records.”¹⁵⁶
- 2.5.2.9 The description of institutional repository software as ‘free’ or ‘open-source,’¹⁵⁷ whilst often true in the first instance, can prove deceptive when institutions plan provision and support for an

149 Kultur (2007–2009) was a Jisc-funded project and a collaborative endeavour to create “a model of an institutional repository for use in the creative and applied arts.” Kultur, accessed 30 November 2020, <http://kultur.eprints.org>.

150 Stephanie Meece, University of the Arts London, response to “Practice Research: Questionnaire for Research Support Professionals,” 2019.

151 Pure is a research information management system that enables institutions to bring together research information in a single platform. See: “Pure,” Elsevier, accessed 30 November 2020, <https://www.elsevier.com/solutions/pure>.

152 “Current research information systems (CRIS) are databases or other information systems used within and among research organizations to store, manage, and exchange data for documentation, communication, and administration of research activities. CRIS usually contain information about researchers and research groups, their projects, funding, outputs, and outcomes.” Gunnar Sivertsen, “Developing Current Research Information Systems (CRIS) as Data Sources for Studies of Research,” in *Springer Handbook of Science and Technology Indicators*, ed. Wolfgang Glänzel, Henk F. Moed, Ulrich Schmoch, and Mike Thelwall (Cham: Springer, 2019), 667. <https://doi.org/10.1007/978-3-030-02511-3>.

153 Helen Bell and Liam Bullingham, Edge Hill University, response to “Practice Research: Questionnaire for Research Support Professionals,” 2019.

154 Helen Bell and Liam Bullingham, questionnaire response.

155 Haplo, accessed 30 November 2020, <https://www.haplo.com>.

156 Jenny Evans and Tom Renner, questionnaire response.

157 “Open source software is made by many people and distributed under an OSD-compliant license which grants all the rights to use, study, change, and share the software in modified and unmodified form. Software freedom is essential to enabling community development of open source software.” Open Source Initiative, accessed 30 November 2020, <https://opensource.org>.

institutional repository. There are substantial support costs in hosting and developing repository software platforms, and this can often disadvantage smaller institutions. Some notable steps have been made to seek greater equality in this area, including the work of GuildHE.¹⁵⁸ “We participated in the consortium purchase of EPrints for GuildHE in 2015. This was the only way we could afford institutional repository software given that we are a small and specialist university.”¹⁵⁹

- 2.5.2.10 Rory McNicholl, Research Technologies Lead Developer at CoSector,¹⁶⁰ details this further: “I would like to think that most people in this area, in HE are disavowed of that notion, because yes, they are free to acquire, but they are not free to support, they’re not free to run, and in the years past, people would’ve made that mistake. Now there’s a better appreciation of the fact that they’re not free - you need some professionalism, either in house or with a service provider like CoSector or many other ones - there’s a cost.”¹⁶¹ Service providers provide substantial support and assistance in the development of institutional repository platforms, particularly around research outputs that may be complex such as practice research: “There are service providers who work with open source tools and they have various models, there are lots of models for funding the work that they do for the community. [...] CoSector for instance, whenever we have a customer who wants to host and support their repository with us, part of the money that we get paid is earmarked as platform contribution, and that’s to buy us a bit of time to do a bit of work that is beneficial to not just that customer.”¹⁶²
- 2.5.2.11 Institutional repository managers and service providers have struggled to develop technologies for hosting practice research outputs in recent years due to a reduction in sector-wide funding for the sustainable development of tools. As McNicholl explains: “between 2009 and 2014 there were funding projects, community projects in institutions to come up with solutions [...] Kaptur and Kultur are two good examples of a result from that funding. That’s stopped, to a large degree. [...] I think that’s had a detrimental effect on, and it’s been a bit of shock to, open source communities for HE in the UK.”¹⁶³
- 2.5.2.12 From our questionnaire responses it is clear that for many of the research support professionals who act as gatekeepers in reviewing the research outputs submitted to institutional research repositories, little distinction is made between items that are documents of practice, and items that are regarded as practice research. A selection of responses to our survey surrounding these two types of submission illustrate the differing ways this issue may be dealt with:

“Our repository only holds original research outputs, not professional practice, though we follow the creators’ lead.”

“We do not presume that all practice work is practice research; we understand that sometimes practice is practice, and sometimes, it’s research.”

158 “GuildHE is an officially recognised representative body for UK Higher Education. Our members include universities, university colleges, further education colleges and specialist institutions from both the traditional and private (“not for profit” and “for profit”) sectors.” GuildHE, accessed 30 November 2020, <https://guildhe.ac.uk>.

159 Carly Sharples, Norwich University of the Arts, response to “Practice Research: Questionnaire for Research Support Professionals,” 2019.

160 “CoSector – University of London is a leading provider of innovative Digital Services including Digital Learning, Digital Research and Digital Transformation.” CoSector – University of London, accessed 29 December 2020, <https://cosector.com>.

161 Rory McNicholl, interview by the authors, 28 March 2019.

162 Rory McNicholl, interview.

163 Rory McNicholl, interview.

“We do not presume the practice work we receive is practice research as we would need more information and context. My colleagues who do review items may gather that information from what is submitted but in my experience when practice work is submitted to the repository there is not a lot of detail or descriptive information added.”

“We support the diverse range of research outputs created by researchers across all disciplines and at all career stages. We have defined practice research works as items that have arisen from the synergy of a creator’s research and practice. They exist in a wide variety of formats, can be intangible and are enhanced by specialist support for description, preservation and discovery.”¹⁶⁴

- 2.5.2.13 What is clear from these responses is that institutional repositories seek to be an inclusive and supportive environment for practice researchers. However, due to a lack of guidance and support, the role of an institutional research repository with practice research has become complex, at once acting as a repository for practice research outputs, and hosting practice documentation (which may not be considered as research by the submitter). This causes a number of technical and workload challenges, including the development of vast numbers of item types (as described in 2.2 in this report) and related file format and metadata requirements (as described in 2.3 in this report). The role of research administrators and research managers has also become more varied, moving beyond the simple need to “ensure access to guidance and support around how to deposit”¹⁶⁵ to a requirement to “encourage the practitioners to think of themselves as researchers”¹⁶⁶ and even to be “assisting in the creation, curation and dissemination of research undertaken.”¹⁶⁷
- 2.5.2.14 One common issue mentioned in our survey results was that many practice researchers wish to submit multi-component outputs to institutional repositories, drawing them together as one research output: “We have been unable to adequately represent bodies of work or portfolios of work within the current repository for some practice research outputs, particularly in preparation for REF 2021. Practice research outputs take many forms, which is not easily categorised in current repository software, nor is it easy to aggregate multiple outputs in the repository into a single body of work/collection.”¹⁶⁸ We have addressed this challenge in detail in 2.2.2 *Exploring the ‘project’ item type for practice research outputs* in this report.
- 2.5.2.15 Many of the challenges facing institutional repositories when managing practice research as Head of Systems and Resources Andrew Gray notes are “simply down to resources.”¹⁶⁹ This is demonstrated in our survey findings, where only 30% of respondents felt there were adequate institutional resources (such as training, facilities and tools) to support practice research submissions.
- 2.5.2.16 Those survey respondents who replied that there was adequate support for practice research submissions noted that it was mostly due to the needs of REF 2021. Many academic institutions in England use their institutional repositories as a mechanism for collecting, auditing and then automating the submission of research outputs to the REF.
- 2.5.2.17 Institutional repositories are often the only place where practice researchers can go to preserve their work to international standards.¹⁷⁰ However, there are practical storage challenges that arise

164 Respondent, “Practice Research: Research Support Professionals Survey,” 2020.

165 Helen Bell and Liam Bullingham, questionnaire response.

166 Emma Hewett, questionnaire response.

167 Tom Cridford and Christie Walker, questionnaire response.

168 Tom Cridford and Christie Walker, questionnaire response.

169 Andrew Gray, Goldsmiths, University of London, response to “Practice Research: Questionnaire for Research Support Professionals,” 2019.

170 Carly Sharples, questionnaire response.

with practice research, where many outputs and datasets can involve substantial file sizes due to use of mixed-media.¹⁷¹ Institutional repository administrators, research support professionals and archivists are key players in the ongoing discussions surrounding the preservation of practice research outputs and datasets, and as Barkla observes: “Digital preservation and the repository continue to evolve.”¹⁷²

- 2.5.2.18 Institutional repositories will play a fundamental role in the development of practice research in the future, and those research support professionals that administrate and develop them ought to be involved in these discussions. Research support professionals are often the first point of contact for practice researchers working in the academy in England, and provide regular support to researchers throughout their careers. Gray notes that practice researchers do not often feel much incentive to deposit their work in institutional repositories: “What is the benefit to a practice researcher of making their work available/depositing into a repository beyond their institution receiving higher REF ratings?”¹⁷³ Whilst undoubtedly there are many areas for improvement in the presentation and preservation of practice research outputs on institutional repositories, it is vital that institutions and the field of practice research more generally advocate for the positive benefits for researchers: long term preservation, discoverability, Open Access and interoperability.

171 For an overview of digital space issues facing university libraries see: G. Matthews and G. Walton, eds. *University libraries and space in a digital world* (Ashgate: Farnham, 2013).

172 Sarah Barkla, questionnaire response.

173 Andrew Gray, questionnaire response.

2.5.3 PRACTICE RESEARCH DATASETS

- 2.5.3.1 Practice researchers (and researchers more generally) often create research datasets that underpin their research outputs. The Concordat on Open Research Data (2016) describes research data as follows: “Research data are the evidence that underpins the answer to the research question, and can be used to validate findings regardless of its form (e.g. print, digital, or physical). These might be quantitative information or qualitative statements collected by researchers in the course of their work by experimentation, observation, modelling, interview or other methods, or information derived from existing evidence.”¹⁷⁴
- 2.5.3.2 Examples of practice research datasets might include: notebooks, ecological survey data, anonymised audience surveys, prototype software, work in progress sound recordings, score drafts, storyboards, interview transcripts, or any other datasets that were instrumental in the process of the research inquiry.
- 2.5.3.3 In the last decade many research funding bodies have mandated that research data should be made Open Access as part of their funding. This has been one of the main driving factors in the development of dataset item types in institutional repositories, the creation of bespoke institutional data repositories, and the resultant emergence of a number of different indexes for discovering research data.¹⁷⁵
- 2.5.3.4 From the research support professionals who replied to our surveys and questionnaires, we learnt that almost all academic institutions who have developed research repositories either have the ability to host and preserve research datasets on their main research outputs repository, or have an additional repository specifically for research data. Despite these resources, the depositing of practice research datasets by practice researchers is still relatively rare. Potential reasons for this mentioned included: a lack of advocacy; the need for guidance; the lack of platforms for ‘surfacing’ practice research datasets.¹⁷⁶
- 2.5.3.5 The funding that different institutions are able to allocate for developing systems for hosting research datasets varies widely, as Hewett observes: “It would be lovely to be able to afford Jisc’s data repository – there is an EPrints integration but for a small institution it is prohibitively expensive, even though it would solve a huge amount of data preservation problems.”¹⁷⁷
- 2.5.3.6 What is clear from our survey respondents is that there can sometimes be a blurring between what practice research datasets are, and what practice research outputs are. We have observed this confusion for both researchers and research support professionals. Due to the lack of standardised guidance for item types and formats of practice research outputs, it is sometimes the case that practice research outputs are hosted as datasets (to accommodate multiple files, to accommodate uncommon formats), rather than as research outputs. This can cause critical problems for general contextual framing and discoverability.

174 “Concordat on Open Research Data,” UKRI, accessed 29 November 2020, <https://www.ukri.org/wp-content/uploads/2020/10/UKRI-020920-ConcordatonOpenResearchData.pdf>.

175 An example of this is the Registry of Research Data Repositories, which is a searchable database of UK research data repositories maintained by DataCite: Registry of Research Data Repositories, accessed 30 November 2020, <https://www.re3data.org>.

176 Respondent, “Practice Research: Survey for Research Support Professionals,” 2020.

177 Emma Hewett, questionnaire response.

- 2.5.3.7 The research audience for a practice research output ought to be able to discover all of the core elements of the research within the bounds of the output itself. Research datasets can be considered supplemental to a research output, and their sharing can be advocated as much as possible, so that future researchers can benefit from them and use them to inform their own work. The relationship of a research dataset to a practice research output can be clearly delineated using links and contextual information (both within the metadata of the separate components and within the content of the output itself).
- 2.5.3.8 Due to the wide variety of types of data that can be produced during a practice research project, the long-term preservation of its research datasets can cause substantial challenges. For Rachel Persad, Policy Manager (Research & Innovation) at GuildHE: “I think one of the other key areas that’s come up is around data and how it’s preserved and stored, and how, again, the outputs from this [practice research] don’t always dovetail very well with data preservation and data storage, and that’s going to become more of an issue as data, open data, becomes more mandated across all councils and across all funders.”¹⁷⁸ We explore the sharing of practice research datasets further on in this report (see 2.6 *Sharing practice research*).

¹⁷⁸ Rachel Persad, interview by the authors, 24 November 2020.

2.5.4 EXPLORING THE OPEN LIBRARY OF PRACTICE RESEARCH (OLPR)

- 2.5.4.1 Drawing on our research and analysis, we find that an Open Library of Practice Research (OLPR), an Open Access peer-reviewed repository for practice research, may address many of the existing issues surrounding the hosting, discoverability, interoperability and long-term preservation of practice research outputs. Many practice researchers have told us that they have very few avenues for publishing and disseminating their work, and that there is a pressing need for access to examples of practice research to inspire the advancement of the field.
- 2.5.4.2 Nelson describes the need as follows: “we need a kind of database of old insights and practice research or established insights so that people can then move forward from those.”¹⁷⁹ Any proposition for a potential OLPR ought to seek to reach the widest research audiences possible. As academic Claudia Bernard notes, its utility would not only be for practice researchers, but also researchers in other fields.¹⁸⁰
- 2.5.4.3 The principles of an OLPR may be different to other open libraries for research, in that research may be harvested both from existing platforms that host peer-reviewed practice research outputs (such as institutional repositories, journals or publishers) and from a potential linked peer review of practice research publication system (as described in 2.4.2 in this report). This hybrid model may feasibly create a platform where scholarly quality and technical standards for further discoverability and interoperability would be guaranteed.¹⁸¹
- 2.5.4.4 Drawing from discussions with institutional repository managers across England, we have learnt that an OLPR could work seamlessly with both institutional repositories and journal platforms (such as OLH and OJS¹⁸²) to enable the automatic harvesting of existing peer-reviewed practice research outputs.¹⁸³ Much of the structure for this interoperability already exists, and is evidenced in the British Library’s EThOS programme, which automatically harvests (and renders interoperable) digital copies of published PhDs.
- 2.5.4.5 In order for a potential OLPR to truly function for its community and wider audiences, it is important to ensure interoperability amongst a wider landscape of research repositories, research discovery tools, and indexes. As the Confederation of Open Access Repositories (COAR) observes: “Each individual repository is of limited value for research: the real power of Open Access lies in the possibility of connecting and tying together repositories, which is why we need interoperability.”¹⁸⁴

179 Robin Nelson, interview.

180 “Even if you’re not doing practice research but when you’re researching whatever it is you’re researching [...] it doesn’t always have to be a journal article, a book chapter, or a book, or a report, it could be something else.” Claudia Bernard, interview by the authors, 5 February 2020.

181 The conception of the OLPR would not necessarily exclude the potential of physical practice research outputs. However, as we have discussed earlier in this report (see 2.3.1 *Formats*), this is an area which will need discussion and conversation in terms of the practical challenges that may be faced.

182 OJS – Open Journal Systems is “an open source software application for managing and publishing scholarly journals. Originally developed and released by PKP in 2001 to improve access to research, it is the most widely used open source journal publishing platform in existence, with over 10,000 journals using it worldwide.” See: “Open Journal Systems,” Public Knowledge Project, accessed 29 December 2020, <https://pkp.sfu.ca/ojs>.

183 Perhaps the most efficient way of achieving this functionality would be to employ an automatic filtering via both a “peer-review” and “practice research” term to be found in metadata fields.

184 Eloy Rodrigues and Abby Clobridge, eds. “The Case for Interoperability for Open Access Repositories,” COAR Repositories, 2011, accessed 27 November 2020, <https://www.coar-repositories.org/files/A-Case-for-Interoperability-Final-Version.pdf>.

- 2.5.4.6 As Chow observes, the potential creation of an OLPR would open up a publication route for academics beyond internal assessment: “putting things into the institutional repository and then doing all of that reporting and monitoring of things can feel like a lot of extra labour with no actual reward. So if there is a sense that this is towards publication then that would actually make it feel a bit more rewarding.”¹⁸⁵
- 2.5.4.7 Many of our interviewees mentioned the British Library as the most appropriate organisation to host a potential OLPR, noting both its institutional and disciplinary independence, and its status in leading developments in research management and preservation in England in recent decades. An example project at the British Library that bears interesting comparison, as Crossick observes,¹⁸⁶ is the UK Research Reserve.¹⁸⁷ The British Library also has very highly developed guidelines and experience for dealing with all types of research¹⁸⁸ and for long-term preservation.
- 2.5.4.8 In discussion with Torsten Reimer, Director of Research at the British Library, we proposed the idea of the OLPR being developed and hosted in collaboration with the British Library. This was a notion that Reimer supported in principle: “from a British Library perspective, I would find this really interesting. If there was a realistic chance that something like this would be supported by funders, and in particular if practitioners, researchers in that space, sector groups, interest groups would support it. [...] It would really help us, and it would definitely get us more dialogue with people that we maybe don’t talk with so much.”¹⁸⁹ From a technical standpoint, Reimer also supported the idea of the OLPR interoperably harvesting research from other systems such as institutional repositories and journals.¹⁹⁰
- 2.5.4.9 Whilst it is not within the scope of these reports to explore a potential structure of the OLPR in detail, we note that good governance would be crucial. As Crossick explains, this could be provided by an independent body. “People from the academy from various key research institutions and researcher funders [...] would give it a broadly based governance framework. [The institution hosting the OLPR] would be answerable for that aspect of its work to them.”¹⁹¹ Crossick’s observation supports the notion that as we have ventured (see our first report *What is practice research? 1.7 Looking forward*) an independent practice research advisory body and its governance structures may provide support and guidance in the creation of an OLPR, acting as a body that those developing and managing the OLPR would ultimately be answerable to.
- 2.5.4.10 Establishing an OLPR would be a substantial undertaking both in technical and financial terms, and would require substantial discussion and debate across the research community. It may be that other models emerge over the coming years. However it is clear from our interview, questionnaire and survey responses that there is a pressing need for a resource where all types of practice research outputs are preserved, made discoverable, and interoperable in the long term.

185 Broderick Chow, interview.

186 Geoffrey Crossick, interview.

187 “The UK Research Reserve (UKRR) **preserves** the nation’s printed journal collections. Together with the On Demand service, we give quick and **easy access** for researchers and help libraries make cost-effective decisions.” UK Research Reserve, accessed 30 November 2020, <https://www.bl.uk/ukrr>. (Emphasis in the original).

188 For example see: “How to deposit your print publications,” British Library, accessed 30 November 2020, <https://www.bl.uk/help/how-to-deposit-your-print-publications> and “Legal deposit,” British Library, accessed 30 November 2020, <https://www.bl.uk/legal-deposit>.

189 Torsten Reimer, interview.

190 Torsten Reimer, interview.

191 Geoffrey Crossick, interview.

2.6 SHARING PRACTICE RESEARCH

Key points from section

- Institutional and independent research repositories are a cornerstone for making practice research outputs discoverable and interoperable.
- Persistent identifiers such as DOI names and ORCID iDs are fundamental in making practice research outputs interoperable.
- Metrics tools and citation indexes are currently not widely used for practice research outputs, but may be in future.
- Adopting Open Access tenets may provide the most efficient and ethical route for sharing practice research outputs.

2.6.1 HOW PRACTICE RESEARCH OUTPUTS ARE SHARED

2.6.1.1 Practice research outputs, as with many forms of research, can be shared in a wide variety of ways, ranging from person to person (via email, via physical items, via performances etc), through uploading digital outputs to institutional repositories, from automatic aggregation to global research indexes, to presentation forums such as conferences, talks and symposia. As we have discussed earlier in this report (see 2.1 & 2.2), the structure of practice research outputs in these different contexts will vary. That variation, whilst providing technical challenges, enhances the communicability of the research, and is to be supported.

2.6.1.2 From surveying a diverse array of 20 research support professionals across the United Kingdom, we learnt that 75% believed that practice research output submissions generally don't aggregate well with the most commonly used research indexes (such as Google Scholar and CORE¹⁹²). This indicates the challenge facing the sharing of practice research outputs: how can we ensure the smooth journey of a practice research output from researcher to audience?



Fig. 3. Responses to the question: "Do practice research outputs, once hosted, aggregate well with existing research sharing systems (e.g. Google scholar, core.ac.uk, academia.edu, ResearchGate)?" in *Practice Research – Research Support Professionals Survey, 2020*.

¹⁹² CORE (COncecting REpositories) is the world's largest repository of open-access research papers. CORE, accessed 27 November 2020, <https://core.ac.uk>. Founder Petr Knuth developed the first CORE prototype in 2010. CORE harvests open access content according to the principles of the Budapest Open Access Initiative. See: Budapest Open Access Initiative, accessed 27 November 2020, <https://www.budapestopenaccessinitiative.org>.

- 2.6.1.3 From our interview, questionnaire and survey respondents we have found that there are a wide array of locations where practice research outputs are shared. These include: personal websites and blogs, institutional repositories, organisational websites, research assessment portals, peer reviewed journals, independent research repositories (such as Figshare), social research sites (such as Academia.edu and ResearchGate), physical publications and performance scenarios.
- 2.6.1.4 Institutional research repositories (IRs) play a vital and fundamental role in the ecology of practice research in England (see 2.5.2). IRs seek to ensure the long-term preservation and dissemination of research outputs, a fact that is perhaps not always apparent to researchers: “Staff often question why they need to deposit into the repository – why can’t they just provide a link to their website? I don’t think they fully understand the intended role of preservation implicit in the function of a repository, and make the mistake of thinking their website will endure, when in fact, this is unlikely.”¹⁹³ Indeed, as we have mentioned, many of the issues surrounding the preservation, discoverability and interoperability of practice research outputs, such as the ‘REF graveyard’ stem from researchers not recognising this fact (see 2.5).
- 2.6.1.5 A successful example of a repository that is open to both institutionally affiliated and independent researchers is Figshare, launched in 2011.¹⁹⁴ Users can upload files in any format, of any item type, and items are assigned a DOI. Institutions can host their own microsite on Figshare on a subscription basis.¹⁹⁵ For Bell and Bullingham, the rationale for using Figshare at Edge Hill University is clear: “Without a high-quality platform to showcase it, it can be hard to convince researchers to share their practice research with the Library. As such, the research can be shared across disparate platforms, many of which are not operable with those platforms used by researchers elsewhere in the institution. [...] One of the appealing features of Figshare is that all items receive a DOI.”¹⁹⁶
- 2.6.1.6 The way that research is being shared is changing rapidly. A major change in the last decade has been the advent of ‘social’ research sharing platforms, run by private companies such as Academia.edu¹⁹⁷ and ResearchGate.¹⁹⁸ When asked the survey question “would you prefer to work with these partners or to compete with them (or both)?” we garnered a wide range of responses from research support professionals. From the Royal College of Art (RCA) we heard that “RCA academics do not typically engage with these other systems, but it is important for the sector to be aware of the

193 Carly Sharples, questionnaire response.

194 For more information about Figshare see: “About,” Figshare, accessed 28 November 2020, <https://figshare.com/about>. Founder of Figshare, Mark Hahnel published a recent blog at LSE on the for-profit model that underpins the platform. See: Mark Hahnel, “Open-source, commercial, non-profit, for-profit: what power have you got?” LSE Blogs, 11 October 2017, accessed 28 November 2020, <http://blogs.lse.ac.uk/impactofsocialsciences/2017/10/11/open-source-commercial-non-profit-for-profit-what-power-have-you-got>.

195 An example of an institutional Figshare is the sub-site hosted for Edge Hill University: Edge Hill University Research Repository, accessed 28 November 2020, <https://figshare.edgehill.ac.uk>.

196 Helen Bell and Liam Bullingham, questionnaire response.

197 Academia.edu is a for-profit platform for sharing academic research that launched in September 2008. For further information about the company see: “About,” Academia.edu, accessed 28 November 2020, <https://www.academia.edu/about>. For an article exploring the financial models that underpin Academia.edu see: “What does Academia.edu’s success mean for Open Access? The data-driven world of search engines and social networking,” LSE Blogs, 22 October 2015, accessed 28 November 2020, <http://blogs.lse.ac.uk/impactofsocialsciences/2015/10/22/does-academia-edu-mean-open-access-is-becoming-irrelevant>.

198 ResearchGate is a professional network for scientists and researchers that launched in March 2008. Its business model is focused on private investment and highly targeted advertising to its more than 19 million users. See: “About,” ResearchGate, accessed 28 November 2020, <https://www.researchgate.net/about>.

opportunities as well as the drawbacks [...] with platforms such as academia.edu there are questions around long-term preservation and author control over the research output if these systems are used *instead* of institutional repositories.”¹⁹⁹ From the University of Oxford we heard: “Visibility is important for all research. We assess our partners on a case by case basis.”²⁰⁰ From the University of the Arts London we received the following: “They aren’t doing the same thing as repositories; they are doing the same thing as Facebook or LinkedIn. They offer appealing social services to researchers, but they are not open scholarly archives, nor are they sustainable in the long term.”²⁰¹ For other institutions, such as the Royal College of Music (RCM), these research sharing platforms had nothing to offer their researchers: “Composers don’t use these research systems. The repository has a different offer which is more tailored to individual needs.”²⁰²

- 2.6.1.7 There is much to be learnt from the success of sites such as Academia.edu and ResearchGate, and their wide uptake by researchers across the research sector illustrates the desire for driving discourse that is fundamental to research and researcher communities. As Gray notes: “they satisfy a need for researchers to share and talk about their work, researchers are more devoted to their discipline than their institutions. [...] We need to learn from these sites.”²⁰³
- 2.6.1.8 A recurring problem mentioned in our questionnaire responses with reference to these private social network research sites was their lack of interoperability with existing research systems. For Evans: “It is rather difficult to work with Academia.edu and ResearchGate as they don’t have open APIs, so making them work with repositories etc is always going to be problematic. This is why working with partners such as ORCID and DataCite who do work in an open way is likely to be more effective.”²⁰⁴
- 2.6.1.9 The field of practice research is in a unique position to build new structures for communicating research to audiences both inside and outside of the academy. It is a relatively new research field, one unencumbered by historic structures founded many centuries ago, and one full of creative and innovative thinkers. From our interviewees, questionnaire respondents and survey data, we have found that almost all of the functional elements required to achieve effective sharing already exist. The challenge is how to draw these elements together and institute modern, open and innovative pathways to share not just practice research, but research of all kinds.

199 Tom Cridford and Christie Walker, questionnaire response. (Emphasis is in the original).

200 Sarah Barkla, questionnaire response.

201 Stephanie Meece, questionnaire response.

202 Emma Hewett, questionnaire response.

203 Andrew Gray, questionnaire response.

204 Jenny Evans, questionnaire response.

2.6.2 DISCOVERABILITY

- 2.6.2.1 The key challenge for sharing practice research is discoverability. It is often mooted that research is only as impactful as it is discoverable, and in the present day, where the vast majority of research is accessed online, discoverability hinges on indexing.²⁰⁵ If practice research is not properly indexed by online discovery tools, research audiences are unlikely to find it. Researchers place an increasingly high value upon ease of access to research.²⁰⁶ As a field whose researchers' work often exhibits a transdisciplinary nature, and whose researchers often find their most appropriate output item type as something other than articles or books, how can discoverability of practice research be assured? The solution, as is often the case, is multifaceted.
- 2.6.2.2 For many researchers the first port of call for discovering research is still a library catalogue. Library catalogues have seen huge changes in recent years, now acting more as a network of citation information and linked indexes than a catalogue of physical holdings, as Lorcan Dempsey has observed: "It [the library catalogue] is being subsumed within larger library discovery environments and catalog data is flowing into other systems and services. [...] The context of information use and creation has changed as it transitions from a world of physical distribution to one of digital distribution."²⁰⁷ From our survey of research support professionals across England, we found that scholarly discovery tools were of central importance to all of the institutional libraries represented.²⁰⁸
- 2.6.2.3 To enable access to research, it is now commonplace for researchers, libraries and research organisations in England to purchase access to mass collections of research through what has been collectively termed 'aggregator' companies.²⁰⁹ The use of the term aggregators is prevalent across the research landscape, but we caution that 'aggregator' as a term has become indistinct, as Simon Inger observes: "To the user the term aggregator is taken to mean the aggregation of full-text content. But the companies who are collectively termed aggregators today range from those who aggregate full text on a selective basis, organized by subject, to those who simply provide a non-selective hosting service for full-text publishers, to those who aggregate abstracts and metadata."²¹⁰
- 2.6.2.4 As Meece observes, the successful indexing of practice research outputs to the research discovery systems prevalently used by researchers and libraries in the present day is uncommon.²¹¹ From our research we have found that practice research outputs rarely, if ever become discoverable through the most common research discovery indexes. There are a number of challenges that cause this situation:

205 For further information on scholarly indexing, with a particular focus on academic journals, see: John Willinsky and Larry Wolfson, "The Indexing of Scholarly Journals: A Tipping Point for Publishing Reform?" *The Journal of Electronic Publishing* 7, no. 2 (2001). <https://doi.org/10.3998/3336451.0007.202>.

206 See: Lynn Sillipigni Connaway, Timothy J. Dickey, and Marie L. Radford, "'If it is too inconvenient I'm not going after it:' Convenience as a critical factor in information-seeking behaviors," *Library & Information Science Research* 33, no. 3 (July 2011): 179–90. <https://doi.org/10.1016/j.lisr.2010.12.002>.

207 Lorcan Dempsey, "Thirteen Ways of Looking at Libraries, Discovery, and the Catalog: Scale, Workflow, Attention," *EDUCAUSE Review* (2012). <https://er.educause.edu/articles/2012/12/thirteen-ways-of-looking-at-libraries-discovery-and-the-catalog-scale-workflow-attention>.

208 This fact is borne out by an Online Computer Library Center (OCLC) survey of UK Academic Libraries (2012) where discovery tools come second in importance only to buildings/facilities issues. See: OCLC, "A Snapshot of Priorities & Perspectives: UK Academic Libraries," Member communication survey, 2012.

209 In HEI libraries across England, these research resources are also sometimes collectively described as 'e-resources.'

210 Simon Inger, "The Importance of Aggregators," *Learned Publishing* 14, no. 4 (2001): 287. <https://doi.org/10.1087/095315101753141383>.

211 Stephanie Meece, questionnaire response.

hierarchies of knowledge and related funding; metadata standards for practice research outputs;²¹² the prevalent item types of practice research outputs;²¹³ and the formats of practice research.²¹⁴ Meece emphasises the existing hierarchies of knowledge that are hard-coded into most research indexes: “They are fixated on scientific journal articles, and are unconcerned with books and chapters, let alone non-text research.”²¹⁵

- 2.6.2.5 Almost all of our questionnaire and survey respondents, and many of our interviewees, observed that in addition to library discovery tools, the primary mode of research discovery that they or their peers use is Google Scholar. Google Scholar was founded in 2004 with the aim “to make it the one place to go to for scholarly information across all languages and disciplines.”²¹⁶ Many research support professionals we spoke to appreciate the lengths that Google Scholar has gone to to work with institutional repositories, and they drew a marked distinction between it and sites such as Academia.edu and ResearchGate: “Google Scholar is a portal for research discovery and is the most important scholarly source in the world. Google Scholar was designed to work with the three major IR software products, including EPrints. It prefers specifically configured PDFs, but can also index non-text items.”²¹⁷ At the time of writing however, Google Scholar’s inclusion guidelines state: “We work with publishers of scholarly information to index peer-reviewed papers, theses, preprints, abstracts, and technical reports from all disciplines of research.”²¹⁸ These narrow specifications of allowable research item types and the requirement for peer review prohibit the effective sharing of many instances of practice research which may find their most appropriate form outside of this array of options for item types (and where peer review opportunities as we have discussed in 2.4 are limited).
- 2.6.2.6 From responses to our questionnaires and surveys from research support professionals, we note the wide variety of discovery platforms that institutional repositories aggregate research to. The most common of these include: CORE, Unpaywall,²¹⁹ Open Access Button,²²⁰ Primo,²²¹ and Google Scholar. Gray notes that much more work needs to be done for practice research outputs to map well from institutional repositories into these discovery systems, citing as an example the difficulty of mapping the practice research item types deposited in an institutional repository to the item types available in Primo.²²²
- 2.6.2.7 There are two common platforms that practice research PhDs are available from within the English academy. These are Open Access Theses and Dissertations (OATD) and the British Library’s

212 We explore metadata standards for practice research earlier in this report, in 2.3.2 *Metadata*.

213 We explore practice research item types earlier in this report, in 2.2 *Item types for practice research*.

214 We explore formats for practice research earlier in this report, in 2.3.1 *Formats*.

215 Stephanie Meece, questionnaire response.

216 Jim Giles, “Start Your Engines,” *Nature* 438 (2005): 554.

217 Stephanie Meece, questionnaire response.

218 “Publisher Support,” Google Scholar, accessed 27 November 2020, <https://scholar.google.com/intl/en/scholar/publishers.html>.

219 Unpaywall harvests Open Access content from over 50,000 publishers and repositories. Unpaywall, accessed 27 November 2020, <https://unpaywall.org>. Unpaywall is a project of Our Research (<https://ourresearch.org>), a nonprofit building tools to help make scholarly research more open, connected, and reusable.

220 Open Access Button can “search thousands of sources with millions of articles to link you to free, legal, full text articles instantly.” Open Access Button, accessed 30 November 2020, <https://openaccessbutton.org>.

221 Primo Library Discovery Service integrates with library and research systems to facilitate access to scholarly materials. See: “Primo,” ExLibris, accessed 28 November 2020, <https://exlibrisgroup.com/products/primo-discovery-service>.

222 Andrew Gray, questionnaire response.

EThOS service. As we have observed in our first report *What is practice research?* (see 1.3.2), practice research PhDs are an area of the field where outputs are discoverable and preserved in the long term. The reasons for this can be attributed to the general standardisation of both the item type and file formats of practice research PhDs, the work of institutional repositories in collecting and hosting PhD theses, and the interoperability of institutional repositories with the British Library's EThOS service.

- 2.6.2.8 Artificial Intelligence (AI) may also be part of the solution for enhancing the discoverability of practice research outputs. A 2018 discussion paper from the Royal Society demonstrates the potentially radical benefits of AI when applied to research datasets: “In the longer-term, the analysis provided by AI systems could point to previously unforeseen relationships, or new models of the world that reframe disciplines.”²²³ However, we note there are risks associated with this, and there have been many studies that demonstrate how bias encoded in the algorithmic underpinning of these systems can undermine their validity and safety.²²⁴
- 2.6.2.9 Whilst they are not in widespread use by practice researchers at the present time, the importance of considering the discoverability of practice research datasets is a subject we have discussed previously in this report (see: 2.5.3 *Practice research datasets*). A number of our respondents mentioned the increasing availability of global indexes for research datasets. Examples include the Registry of Research Data Repositories²²⁵ run by DataCite, and Google's Dataset Search.²²⁶
- 2.6.2.10 As we have discussed (see: 2.2 *Item types for practice research*), it may be worth exploring the creation of a globally indexable collective ‘project’ research item type. This development can help research support professionals to create accurate and indexable metadata and persistent identifiers for the many multi-component research outputs that currently exist (especially in practice research) that do not become discoverable on major research indexes.
- 2.6.2.11 The field of practice research can look toward the future of research discoverability by working collaboratively with different partners to ensure that the needs of its researchers are addressed. As well as the institutional repository community and sector-wide organisations such as Jisc and the British Library, this may include collaborating with the developers of aggregators, indexes and discovery tools such as Google Scholar, Primo and CORE. Future developments may include technological progressions in the indexing of non-text research, as Hill notes: “I imagine in the next decade, audio will be surfaced, the content of audio will be surfaced as opposed to the metadata.”²²⁷ It is vital that the field of practice research is engaged and present in the discussions surrounding these technological developments, driving the conversation forward and ensuring that the work of its researchers is at the core of progression in this area.

223 Royal Academy and Alan Turing Institute, “AI, society and social good: Note of discussions at a Royal Society and American Academy workshop,” Royal Academy Papers, 2018, accessed 27 November 2020, <https://royalsociety.org/-/media/policy/Publications/2018/ai-and-society-workshop-notes.pdf?la=en-GB&hash=0695C536BACBF6985F01DEE66396608E>.

224 For example see: Robert Challe, Joshua Denny, Martin Pitt, Luke Gompels, Tom Edwards, and Krasimira Tsaneva-Atanasova, “Artificial Intelligence, Bias and Clinical Safety,” *BMJ Quality & Safety* 28, no. 3 (2019): 231–37. <https://doi.org/10.1136/bmjqs-2018-008370>.

225 See: Registry of Research Data Repositories, accessed 28 November 2020, <https://www.re3data.org>.

226 See: Google Dataset Search, accessed 28 November 2020, <https://datasetsearch.research.google.com>.

227 Steven Hill, interview.

2.6.2.12 Whilst it is generally the case that sharing research to as wide an audience as possible is positive, we urge an attitude of caution, as Bell and Bullingham outline: “it is essential that the researcher has a good understanding of the implications of what they are sharing and how to do this with their own work in relation to sensitive data and how it will be reused.”²²⁸ We explore the ethical implications of practice research in our first report, see 1.5.4 *The ethics of accessible practice research*. To enhance the discoverability of practice research outputs there is a pressing need for data literacy within and beyond the research community, creating a culture of openness and transparency as to what needs to happen to ensure that practice research can be made discoverable.

228 Helen Bell and Liam Bullingham, questionnaire response.

2.6.3 INTEROPERABILITY AND PERSISTENT IDENTIFIERS

- 2.6.3.1 Interoperability is “the ability of two or more systems or components to exchange information and to use the information that has been exchanged.”²²⁹ This term was used by many of our questionnaire and survey respondents when discussing how practice research outputs (and other research outputs) can be easily conveyed between different systems and components to then be made discoverable across multiple platforms.
- 2.6.3.2 In institutional research repositories research outputs do not only aggregate outwards to research indexes, they are also imported in. This often occurs when researchers move between institutions and research support professionals use citation indexes to harvest the research outputs of new staff members into their institutional repository.²³⁰ The research profile of a staff member on a repository is often then used to feed listings on institutional websites, inform support mechanisms in research offices, inform academic promotion decisions, and aid in research assessment exercises such as the REF.
- 2.6.3.3 Examples of research citation data platforms that were mentioned in our questionnaire and survey responses include Mendeley,²³¹ Social Science Research Network (SSRN),²³² PubMed,²³³ Web of Science and arXiv.²³⁴ To import a researcher’s research outputs as efficiently as possible from these platforms, many research support professionals use the researcher’s ORCID iD²³⁵ which (if it has been entered into the metadata of research outputs) automatically links together a researcher’s outputs, enabling a rapid and efficient capture of research output metadata.
- 2.6.3.4 As Gray observes, there are a number of foundational issues to be resolved in the field of practice research before interoperable research systems will have any chance of success:²³⁶ “the fact that practice research is ill-defined and probably containing multiple outputs/formats means that established/traditional academic services/discovery layers, e.g. Scopus, Web of Science, Google Scholar do not hold them, and therefore it is very hard to develop systems that are interoperable.”²³⁷
- 2.6.3.5 When discussing the challenges of ensuring interoperability for practice research outputs, a number of our respondents referred to the FAIR guiding principles.²³⁸ These principles provide

229 A. Geraci, *IEEE Standard Computer Dictionary: Compilation of IEEE Standard Computer Glossaries* (IEEE Press, 1991).

230 Tom Cridford and Christie Walker, questionnaire response.

231 Mendeley is a research reference management software, see: Mendeley, accessed 28 November 2020, <https://www.mendeley.com>.

232 The Social Science Research Network (SSRN) is a repository for preprints devoted to the rapid dissemination of scholarly research in the social sciences and humanities and more. See: SSRN, accessed 29 November 2020, <https://www.ssrn.com>.

233 PubMed is a search engine focused on references and abstracts in life sciences and biomedical topics. See: PubMed, accessed 29 November 2020, <https://pubmed.ncbi.nlm.nih.gov>.

234 arXiv is an open-access archive for scholarly articles in the fields of physics, mathematics, computer science, quantitative biology, quantitative finance, statistics, electrical engineering and systems science, and economics. See: arXiv.org e-Print archive, 29 November 2020, <https://arxiv.org>.

235 ORCID is a nonprofit global organization that provides researchers with a unique digital identifier. See: “About ORCID,” ORCID, accessed 29 November 2020, <https://orcid.org/about>.

236 We detail these issues throughout both this report and our first report, *What is practice research?* (see 1.6 *Conclusions*).

237 Andrew Gray, questionnaire response.

238 In 2016, the ‘FAIR Guiding Principles for scientific data management and stewardship’ were published in *Scientific Data*. The guidelines intend to improve the Findability, Accessibility, Interoperability, and Reuse of digital assets. See: “FAIR Principles,” GO FAIR Initiative, accessed 29 November 2020, <https://www.go-fair.org/fair-principles>.

a useful framework to consider when thinking through how practice research outputs might be formulated, formatted, stored and disseminated in the future. As representatives from Jisc explained: “it’s about making the evidence that underpins and documents research, findable, accessible, interoperable and reusable.”²³⁹

- 2.6.3.6 A key issue underlying the interoperability and discoverability of practice research outputs in digital form is the need for Persistent Identifiers (PIs).²⁴⁰ The Digital Preservation Coalition describes PIs as follows: “A persistent identifier is a long-lasting reference to a digital resource. Typically it has two components: a unique identifier; and a service that locates the resource over time even when its location changes.”²⁴¹
- 2.6.3.7 The most widely used and discussed PI from our questionnaire and survey respondents is the DOI system: “a generic framework for managing identification of content over digital networks.”²⁴² For academics and research support professionals in England, there are two main organisations that provide DOI names: DataCite,²⁴³ an international not-for-profit organisation that focuses on establishing easier access to research through the creation of DOIs; and Crossref,²⁴⁴ an organisation that creates DOIs for its members who mainly publish content and register research grants. Crossref and DataCite often work collaboratively to provide services and support for the needs of their communities beyond the sole provision of DOIs. Despite the widespread adoption of DOIs for practice research outputs, a number of our survey respondents mentioned challenges in coining them for practice research in particular: “often practice research doesn’t fit the mandatory information profile required to mint one: “Publisher” - often this work is not formally published [...] Relaxing the use of the <publisher> field (or clearer guidance on its use in these cases) would allow better sharing of practice-based research).”²⁴⁵
- 2.6.3.8 From our survey respondents, we learnt that 80% of their institutional research repositories have already, or are about to integrate the functionality for coining DOIs for research outputs. Many of our survey respondents noted that the integration of the DataCite tool for minting DOIs works seamlessly as a process, particularly with the dominant institutional repository software EPrints.
- 2.6.3.9 ORCID iDs are now in widespread use across the research landscape. ORCID provides a unique persistent digital identifier (an ORCID iD) that researchers own and can control. Researchers can connect their iD with their professional information: affiliations, grants, publications, peer

239 Jisc, interview.

240 Whilst there are many existing identifiers for traditional forms of research, such as the ISBN, there has been much debate in recent years about their long term persistence and precision. For a discussion on this area please see: Jez Cope, “When is a persistent identifier not persistent? Or an identifier?” British Library Digital Scholarship Blog, 7 September 2020, accessed 27 November 2020, <https://blogs.bl.uk/digital-scholarship/2020/09/when-is-a-persistent-identifier-not-persistent-or-an-identifier.html>.

241 “Digital Preservation Handbook: Persistent Identifiers,” Digital Preservation Coalition, accessed 27 November 2020, <https://www.dpconline.org/handbook/technical-solutions-and-tools/persistent-identifiers>.

242 “Although originating in text publishing, the DOI was conceived as a generic framework for managing identification of content over digital networks, recognising the trend towards digital convergence and multimedia availability. The system was announced at the Frankfurt Book Fair 1997. The International DOI® Foundation (IDF) was created to develop and manage the DOI system, also in 1997.” “DOI Handbook Introduction,” Digital Object Identifier System, accessed 27 November 2020, https://www.doi.org/doi_handbook/1_Introduction.html.

243 See: “DataCite’s Value,” DataCite, accessed 27 November 2020, <https://datacite.org/value.html>.

244 See: “About us,” Crossref, accessed 27 November 2020, <https://www.crossref.org/about>.

245 Jenny Evans, questionnaire response.

review, and more. ORCID iDs aid the interoperability of research information across systems.²⁴⁶ We recognise the benefit of their adoption by practice researchers and general advocacy by the field and its representatives. As many research support professionals mentioned in their responses to our survey and questionnaire, ORCID iDs enhance the potential of practice research outputs being both discoverable and interoperable across research systems.

- 2.6.3.10 A number of our interviewees and questionnaire respondents advocated working in close partnership with DataCite, Crossref and ORCID in developing guidance and further technologies for persistent identification of practice research outputs. For representatives from Jisc, one collaborative project might involve exploring the existing metadata schema of the DOI system²⁴⁷ and its efficacy for practice research outputs, another might be considering how practice research relates to the increasingly adopted Schema.org project.²⁴⁸ More generally it was observed that working collaboratively with institutions such as DataCite, Crossref and ORCID will allow the field of practice research to be part of developments, as persistent identifiers such as DOI and ORCID iDs become more and more widespread for research outputs and researchers in England.²⁴⁹ This collaboration will not only benefit the field in terms of preservation and proper description of research outputs, but also will ensure the interoperability of practice research outputs with global indexes of research discovery such as Google Scholar.

246 See: ORCID, accessed 29 November 2020, <https://orcid.org>.

247 See: “Digital Preservation Handbook: Data Model – 4.3.1 DOI® metadata Kernel,” Digital Object Identifier System, accessed 27 November 2020, https://www.doi.org/doi_handbook/4_Data_Model.html#4.3.1.

248 “Schema.org is a collaborative, community activity with a mission to create, maintain, and promote schemas for structured data on the Internet. In addition to people from the founding companies (Google, Microsoft, Yahoo and Yandex), there is substantial participation by the larger Web community, through public mailing lists such as public-vocabs@w3.org and through GitHub.” See: “About Schema.org,” Schema.org, accessed 27 November 2020, <https://schema.org/docs/about.html>.

249 Steven Hill, interview.

2.6.4 METRICS, ANALYTICS AND CITATION

- 2.6.4.1 The use of metrics and analytics to determine the success or impact of a practice research output is as yet underdeveloped when compared with other research fields. Substantial problems exist when trying to apply existing metrics and analytics systems that have been developed for more traditional research fields to the plurality of research item types and file formats that exist in the field of practice research. Due to the relative lack of discoverable practice research outputs (for reasons outlined in this report 2.6.2), at the present time there is no notable usage of metrics and citation systems for practice research.²⁵⁰
- 2.6.4.2 From our questionnaire and survey respondents we have found that much of the groundwork for analytics and metrics systems that may function for practice research do exist. A majority of institutional research repositories in England who responded to our survey use the community driven Jisc service IRUS-UK (Institutional Repository Usage Statistics UK)²⁵¹ to derive metrics about the research that they host. Data that the IRUS-UK system provides for institutional repository managers includes full-text downloads, metadata error reporting, Digital Object Identifier name (DOI) availability, and ORCID (Open Researcher and Contributor iD) availability.²⁵² IRUS-UK is regarded by the research support community in England as a vital tool in aiding institutional repository managers to manage practice research outputs, and may act as a useful way in future of capturing data surrounding practice research dissemination.

250 A 2015 paper by Maria Delgado and Mike Thelwall ‘No Metrics Please, Just Data’ summarises many of the challenges of employing conventional metrics with practice research outputs. See: Maria M. Delgado and Mike Thelwall, “Arts and Humanities Research Evaluation: No Metrics Please, Just Data,” *Journal of Documentation* 71, no. 4 (2015): 817–833.

251 IRUS (Institutional Repository Usage Statistics) enables UK Institutional Repositories (IRs) to share and expose statistics based on the COUNTER standard. It provides a nation-wide view of UK repository usage to benefit organisations, it offers opportunities for benchmarking and acts as an intermediary between UK repositories and other agencies. IRUS-UK collects raw usage data from UK IRs and processes these data into COUNTER-conformant statistics. This provides repositories with comparable, authoritative, standards-based data. IRUS-UK is a Jisc service managed by Jisc and Cranfield University with support from Evidence Base. See: IRUS-UK, accessed 27 November 2020, <https://irus.jisc.ac.uk>.

252 See: “Statistics and Reports available in the IRUS-UK Portal,” IRUS-UK, accessed 27 November 2020, <https://irus.jisc.ac.uk/support/statsreports>.

2.6.5 COPYRIGHT, CREATIVE COMMONS AND INTELLECTUAL PROPERTY

2.6.5.1 From our survey we learnt that it is common for research support professionals to be the primary source of guidance and assistance regarding copyright, Creative Commons licensing and intellectual property concerns for practice researchers. Responses we received indicated a specific array of problems and concerns encountered by research support professionals:

“Multi-part works in particular are likely to have very complicated rights.”

“where a work e.g. a musical piece is licensed or published externally to the university, but the researcher wishes to utilise portions of it in their published research outputs.”

“Lack of understanding around the use of creative commons.”

“Copyright of images and videos if a third party has been used. Also some issues with ethics and data protection”²⁵³

2.6.5.2 To address some of the copyright and licensing issues with practice research outputs, one successful method that has emerged is to use short excerpts of documentation of practice (as a proxy for practice) within practice research outputs.²⁵⁴ This approach helps to protect important revenue streams from the licensing of professional practice documentation for practice researchers some of whom may be on fractional institutional contracts (as discussed in our first report *What is practice research?* 1.5.2 *Professional practice and practice research*).

2.6.5.3 Creative Commons licenses, which let users openly share their work with fewer copyright restrictions, are widely used in institutional repositories and beyond. It is possible to share practice research outputs that contain copyrighted material used with permission (such as third party images), by licensing the overall research output with a Creative Commons license and then adding a notice about the specific content that is copyrighted to the third party within the output.

2.6.5.4 Many of our interview and questionnaire respondents exhibited a level of pragmatism when all attempts to find a copyright owner to contact and resolve a copyright issue had failed. For Cooper, who worked predominantly in print publishing before moving into digital publishing, the digital form of research publication affords a certain flexibility: “We used to put a rider in that says ‘every effort has been made to seek permission and if there is a question please get in touch.’ The good thing about something digital is you can take it off if you have to, and you can adjust.”²⁵⁵

2.6.5.5 The growth in different types of licenses impacts upon the development of the software platforms that underpin research repositories. As developer Rory McNicholl notes, new software updates need to occur on a regular basis as different license options come into public usage and demand for them increases amongst researchers.²⁵⁶

253 Respondents, “Practice Research: Research Support Professionals Survey,” 2020.

254 Emma Hewett, Research and Knowledge Exchange Manager at the Royal College of Music says: “I offer to mint DOIs, get composers to send sample pages so their work is not completely OA if they haven’t got a publisher, and get the best possible metadata to make entries meaningful.” Emma Hewett, questionnaire response.

255 Victoria Cooper, interview.

256 Rory McNicholl, interview.

- 2.6.5.6 As we have observed, copyright and licensing for practice research outputs can be a complex area, with particular issues surrounding the sharing of documentation of practice (as a proxy). An independent practice research advisory body may provide up-to-date guidance and support to practice researchers around copyright, intellectual property, and licensing.

2.6.6 OPEN ACCESS

- 2.6.6.1 Drawing upon the widely adopted tenets of the Budapest Open Access Initiative, the benefits of Open Access to research are as follows: “OA benefits research and researchers, and the lack of OA impedes them; OA for publicly-funded research benefits taxpayers and increases the return on their investment in research. It has economic benefits as well as academic or scholarly benefits; OA amplifies the social value of research, and OA policies amplify the social value of funding agencies and research institutions; The costs of OA can be recovered without adding more money to the current system of scholarly communication; OA is consistent with copyright law everywhere in the world, and gives both authors and readers more rights than they have under conventional publishing agreements; OA is consistent with the highest standards of quality.”²⁵⁷
- 2.6.6.2 As of April 2020, Open Access mandates have been adopted by over 837 universities and research institutions, and over 143 research funders worldwide.²⁵⁸ Research funder policies are currently one of the biggest influences on scholarly work being made Open Access in England.
- 2.6.6.3 One of the most significant international developments in Open Access policy is the launching of Plan S, an initiative of cOAlition S, launched by a group of national research funding organisations, with the support of the European Commission (EC) and the European Research Council (ERC). Plan S requires that “with effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo.”²⁵⁹
- 2.6.6.4 Plan S signatories from the UK include UK Research and Innovation (UKRI) and the Wellcome Trust, who are currently promoting the Open Access agenda with new policies. In 2020 UKRI conducted an Open Access review, to which 350 organisations and individuals responded. In the light of this review, UKRI will finalise and publish their new Open Access policy in the second quarter of 2021.²⁶⁰ Wellcome Trust’s new Open Access policy, from 1 January 2021, has been in line with Plan S, requiring all research articles which arise from Wellcome funding to be made freely available at the time of publication through open licences.²⁶¹
- 2.6.6.5 Research assessment criteria have been an important driver for Open Access. To be eligible for REF 2021 for example, articles and conference proceedings (with an ISSN) accepted on or after 1 April 2016 had to be made Open Access within 3 months of acceptance via deposit of the manuscript to an institutional repository or via publication as Gold Open Access on the publishing platform.²⁶²

257 See: “Ten years on from the Budapest Open Access Initiative: setting the default to open,” on the Budapest Open Access Initiative, accessed 28 November 2020, <https://www.budapestopenaccessinitiative.org/boai-10-recommendations>.

258 See: ROARMAP, accessed 30 December 2020, <http://roarmap.eprints.org>.

259 “What is cOAlition S?” accessed 30 November 2020, <https://www.coalition-s.org/about>.

260 “How our open access policies are changing,” UKRI, accessed 30 November 2020, <https://www.ukri.org/our-work/supporting-healthy-research-and-innovation-culture/open-research/open-access-policies-review>.

261 “Open access policy,” Wellcome Trust, accessed 30 November 2020, <https://wellcome.org/grant-funding/guidance/open-access-guidance/open-access-policy>.

262 Papers made Open Access within 3 months of publication were by default eligible for the first two years of the policy (2016–2018) and were allowed via a “deposit exception” thereafter (2018–2020). Papers published as Gold Open Access on the publisher site (usually after an Article Processing Charge payment) are by default eligible, as long as Gold Open Access was not retrospectively applied. For further information, see: REF 2021, accessed 30 November 2020, <https://ref.ac.uk>.

- 2.6.6.6 Funder and assessment mandates, although highly effective, are not the sole drivers for Open Access. There are significant international initiatives, systems, and workflows for Open Access, providing guidance, support and resources to promote its wider benefits. In addition, there are numerous collaborative resources that have developed over the last twenty years that provide long-term support and indexing solutions for Open Access research in institutional repositories and peer-reviewed journals. Examples include CORE (COnnecting REpositories), the OpenDOAR project (a quality-assured directory of Open Access repositories),²⁶³ other Sherpa Services consisting of Sherpa Romeo, Sherpa Juliet, Sherpa Fact and Sherpa REF,²⁶⁴ the Directory of Open Access Journals (DOAJ),²⁶⁵ and the Directory of Open Access Books (DOAB).²⁶⁶ By engaging in existing Open Access repositories and toolsets for dissemination, practice researchers can harness this thriving network of indexes and aggregators, rendering outputs discoverable for the global research community.
- 2.6.6.7 Further reporting and reviewing needs to take place on the particulars of an Open Access agenda for practice research so that it can lead to a model of Open Access that will be effective and fair for practice researchers, enabling the most direct, ethical and efficient route from researcher to audience, building on existing infrastructures and good practice.

263 “OpenDOAR is the quality-assured, global Directory of Open Access Repositories. We host repositories that provide free, open access to academic outputs and resources. Each repository record within OpenDOAR has been carefully reviewed and processed by a member of our editorial team which enables us to offer a trusted service for the community. The service launched in 2005 as the product of a collaborative project between the University of Nottingham and Lund University, funded by OSI, Jisc, SPARC Europe and CURL.” See: “About OpenDOAR,” Sherpa Services, accessed 28 November 2020, <https://v2.sherpa.ac.uk/opendoar/about.html>.

264 “Sherpa Services,” Jisc, accessed 30 November 2020, <https://v2.sherpa.ac.uk>.

265 “The DOAJ (Directory of Open Access Journals) was launched in 2003 with 300 open access journals. Today, this independent database contains over 15 000 peer-reviewed open access journals covering all areas of science, technology, medicine, social sciences, arts and humanities. Open access journals from all countries and in all languages are welcome to apply for inclusion. DOAJ is financially supported by many libraries, publishers and other like-minded organisations. Supporting DOAJ demonstrates a firm commitment to open access and the infrastructure that supports it.” Directory of Open Access Journals, accessed 28 November 2020, <https://doaj.org>.

266 “The primary aim of DOAB is to increase discoverability of Open Access books. Academic publishers are invited to provide metadata of their Open Access books to DOAB. Metadata will be harvestable in order to maximize dissemination, visibility and impact.” Directory of Open Access Books, accessed 28 November 2020, <https://doabooks.org>.

2.7 CONCLUSIONS

In this report we have explored the question ‘how can practice research be shared?’ through interviews, questionnaire and survey responses, and a literature and standards review. From each of the sections in the report we draw together here the key points that have emerged:

- 2.7.1 Whilst the structure of a practice research output will vary depending on the research inquiry, there is a need for general guidance surrounding the compositional structure of a practice research output (see 2.1).
- 2.7.2 Practice research outputs should be submitted to, rather than created for, research assessments (see 2.1.3).
- 2.7.3 The appropriate item type for a practice research output will vary depending on the most effective way of articulating a research inquiry. Practice research outputs are currently contained in a variety of different research item types, including project, performance, exhibition, book, book section, design or journal article. Item types other than books, book sections, journal articles and conference proceedings currently lack discoverability and interoperability with global research systems, hindering their preservation and sharing (see 2.2).
- 2.7.4 Current peer review models for research publication do not function well for many practice research outputs (see 2.4).
- 2.7.5 Research support professionals, and in particular those working on institutional repositories and Open Access, have developed an important body of knowledge surrounding the preservation and sharing of practice research in the present day. Institutional repositories will continue to play a crucial role in storing and preserving practice research outputs (see 2.5).
- 2.7.6 Substantial challenges exist in storing and preserving practice research outputs. These include a lack of: an agreed collective item type; interoperability of file formats and research item types; and metadata standards (see 2.3 and 2.6.3).
- 2.7.7 The biggest challenge facing practice researchers in sharing their work is discoverability. Consideration of item types, file formats and metadata are of vital importance to enable practice research to be shared interoperably across research systems. Persistent identifiers such as DOI names and ORCID iDs are fundamental for the interoperability of practice research outputs (see 2.6.2).
- 2.7.8 We have found a pressing need for a ‘place to go’ for advice and guidance on the sharing of practice research, particularly surrounding copyright, Creative Commons licenses, intellectual property and Open Access (see 2.6.5 and 2.6.6).²⁶⁷

²⁶⁷ To find out about policies and information on practice research and practice researchers 45% of our survey respondents said they consult peer forums (mailing lists, forums, meetings, conferences etc of research support professionals); 15% their institution (e.g. Research Office, committees, particular academics); 5% national institutions (e.g. Research England, EPSRC, AHRC, British Library); 5% international colleagues who are supporting practice-researchers; 5% existing literature at their workplace (reports, books, etc.); 5% do general Internet browsing; and 20% said they mix and match multiple options.

- 2.7.9 Practice research is well established in the UK, and it is also developing internationally, in countries such as Australia, Canada, Hong Kong, Netherlands, Norway, Singapore and Sweden. Practice research is growing across the world.²⁶⁸ There is much to be gained in discussing the implementation of standards and guidance for the sharing of practice research internationally, and in the findings of this report we hope to contribute to this pursuit.
- 2.7.10 The landscape of research across England is changing at a rate faster than ever before. New item types, formulations and formats for sharing and preserving research are emerging, the validity of established peer review systems is under debate, the Open Access model is challenging the dominance of for-profit publishers, and there is an important opportunity for practice research as a field to lead these discussions and inform what the future of research looks like.²⁶⁹

268 Robin Nelson, interview and Bruce Brown, interview.

269 Examples of this can be seen in the following projects: the launch of the ‘Research on Research’ institute by the Wellcome Trust (see: Research on Research Institute, accessed 28 November 2020, <http://researchonresearch.org>); the RAND report on the changing research landscape: Sarah Parks, Daniela Rodriguez-Rincon, Sarah Parkinson, and Catriona Manville, “The Changing Research Landscape and Reflections on National Research Assessment in the Future.”

2.8 LOOKING FORWARD

In addition to the considerations presented at the end of our first report *What is practice research?* (see 1.7 *Looking forward*), there are a number of activities that a practice research advisory body could undertake to help support the effective sharing of practice research outputs in the future:

- a) to explore the most appropriate formats for the generation, dissemination and preservation of practice research;
- b) to discuss the adoption of a collective ‘project’ research output item type across global research systems;
- c) to involve research support professionals, practice researchers and policymakers in developing guidance and recommendations for the long-term dissemination, preservation and storage of practice research;
- d) to explore the need and feasibility for a new peer review model for practice research publication;
- e) to commission further reporting surrounding practice research and Open Access;
- f) to investigate the founding of an Open Library of Practice Research (OLPR). This open library would:
 - i. harvest and host peer-reviewed practice research outputs;
 - ii. provide specific support for the novel formulations of practice research that will emerge in future.
 - iii. embody principles of Open Access.

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LIST OF ABBREVIATIONS

AHDS	Arts and Humanities Data Service
AHRB	Arts and Humanities Research Board
AHRC	Arts and Humanities Research Council
AI	Artificial Intelligence
APC	Article Processing Charge
API	Application Programming Interface
BL	British Library
CLOCKSS	Controlled LOCKSS
CC	Creative Commons
CD	Compact Disc
COAR	Confederation of Open Access Repositories
COPE	Committee on Publication Ethics
CORE	Connecting Repositories
CRIS	Current Research Information System
DC	Dublin Core™
DCC	Digital Curation Centre
DOAB	Directory of Open Access Books
DOAJ	Directory of Open Access Journals
DOI®	Digital Object Identifier
DVD	Digital Video Disc
EC	European Commission
ERC	European Research Council
EThOS	Electronic Thesis Online Service
HE	Higher Education
HEI	Higher Education Institution
HTML	Hyper Text Markup Language
ICA	International Council on Archives.
IF	Impact Factor
IP	Intellectual Property
IR	Institutional Repository
IRUS-UK	Institutional Repository Usage Statistics UK
ISAD(G)	General International Standard Archival Description
ISBN	International Standard Book Number
ISSN	International Standard Serial Number
ISO	International Standards Organisation
JAR	Journal for Artistic Research
JER	Journal of Embodied Research
Jisc	Joint Information Systems Committee
LOCKSS	Lots of Copies Keep Stuff Safe

NLTLD	Networked Digital Library of Theses and Dissertations
OA	Open Access
OATD	Open Access Theses and Dissertations
OCLC	Online Computer Library Center
OJS	Open Journal Systems
OLH	Open Library of Humanities
OLPR	Open Library of Practice Research
OpenDOAR	Directory of Open Access Repositories
ORCID iD	Open Researcher and Contributor ID
OSD	Open Source Definition
PASIG	Preservation and Archiving Special Interest Group
PDF	Portable Document Format
PI	Persistent Identifier
RAE	Research Assessment Exercise
RE	Research England
RCA	Royal College of Art
RCM	Royal College of Music
REF	Research Excellence Framework
ROARMAP	Registry of Open Access Repository Mandates and Policies
SCIE	Science Citation Index Expanded
SSCI	Social Sciences Citation Index
SSRN	Social Science Research Network
UAL	University of the Arts London
UKCoRR	United Kingdom Council of Open Research and Repositories
UKRI	United Kingdom Research and Innovation
UKRR	UK Research Reserve
URL	Uniform Resource Locator
USB	Universal Serial Bus
VADS	Visual Arts Data Service
VR	Virtual Reality
W3C	World Wide Web Consortium
WoS	Web of Science
XML	Extensible Markup Language

APPENDIX 1:

Practice research: questionnaire for research support professionals

1. Which repository software or research management system does your institution use and why?
2. Is there a clear distinction between professional practice and practice research in your repository? Do you presume all practice work you are receiving to the repository is practice research?
3. What do you think the role of research administrators and repository managers is with practice research?
4. Do you provide practice research guidelines for your researchers? If so, on which aspects of practice research do you give advice (content, documentation, technical, etc.)?
5. What challenges and issues for practice research have been caused by the existing software provision for your institutional repository?
6. What issues related to discoverability and interoperability have you encountered in terms of practice research? Have any solutions been proffered to improve the situation?
7. Which aggregation tools is your repository linked to? Do they work for all item types?
8. What impact do you think that academia.edu, google scholar, researchgate and other private research systems have upon practice research? Do you think it is important for the sector to work with these partners or to compete with them (or both)?
9. What are some issues relating to the long-term preservation of practice research and how could these be overcome? Does your institution provide advice for researchers on this?
10. Which persistent identifiers and metadata are needed for practice research?
11. Do you think you can identify what the form of a practice research is likely to be? Is it generally a single item?
12. If we were to propose a singular output form for practice research (with a defined metadata set), with parity to a book, book section or journal article, what do you think the challenges that might be faced in implementing it would be? (in terms of repositories and other research aggregating systems).
13. Do you think that practice research is solely applicable to arts and humanities researchers? Do you receive practice research outputs from other disciplines? If so, are their concerns similar to those from arts and humanities?
14. Are there funding issues that exist when it comes to projects related to the presentation and dissemination of practice research?
15. Does your institution have any specific networks, communities or internal groups that explore practice research? How do these groups relate to your role as a research support professional?

APPENDIX 2: Practice research: research support professionals survey

QUESTIONS

1. Where geographically is your institution based?
 - a) England
 - b) Northern Ireland
 - c) Wales
 - d) Scotland

2. What best describes your job role in relation to practice research?
 - a) Institutional repository manager / administrator
 - b) Institutional repository developer
 - c) Research office manager / administrator
 - d) Other role [please indicate]

3. Do you feel confident in your understanding of what practice research is?
 - a) Yes
 - b) No
 - c) Further comments:

4. Is practice research more or less complex to deal with than traditional research forms in your day to day work?
 - a) More complex
 - b) Less complex
 - c) Further comments:

5. Do you feel that your institution adequately resources you to support practice research (in terms of training, facilities and tools)?
 - a) Yes
 - b) No

6. Where do you turn to in order to get advice on policies and advice relating to practice research and practice researchers?
 - a) My institution (e.g. research office)
 - b) National institutions (e.g. Research England, AHRC, British Library) - please specify which in the box
 - c) General internet browsing
 - d) Don't know

- (if institutional repository professional)
7. What do you think the primary role of a repository professional is with practice research? (please select the most appropriate answer only)
 - a) To actively help the researcher construct their research in such a way that it can be effectively shared

- b) To offer advice to the researcher on how to construct their research in such a way that it can be effectively shared
 - c) To receive completed research projects and then host and disseminate them
8. What is the biggest challenge you encounter when engaging with practice research as a repository professional?
- a) File formats
 - b) Multi-part outputs (and how to host them)
 - c) Lack of consistent overall guidance
 - d) Metadata standards
9. Do practice research projects / outputs, once hosted, aggregate well with existing research sharing systems (i.e. Google Scholar, core.ac.uk, Academia.edu, ResearchGate)?
- a) Yes
 - b) No
 - c) Sometimes
10. What do you think could be improved about the form and format of practice research outputs/projects that would mean they can be shared as effectively as more traditional formats such as journal articles and books?
11. In your institution, are you aware of specific institutional support surrounding practice research? Please describe this.
12. What institutional repository software do you use for hosting institutional research outputs? (i.e. ePrints, DSpace, Symplectic, Pure, Fedora, Haplo etc). Please also describe any specific issues surrounding depositing and hosting practice research with this software.
13. Do you coin persistent identifiers for practice research projects/outputs at your institution (i.e. DOI, ISBN etc), if so, please detail.

APPENDIX 3: Sample interview questions for repository developers

1. What do you consider practice research to be? (Do you think that there is a clear definition in existence? Should there be?)
2. What has been the history of practice research in England from an ePrints/Pure/DSpace/Cosector point of view?
3. What projects have you been involved with over the last decade related to practice research (and how successful do you feel these have been)?
4. Are there funding issues that exist when it comes to projects related to the presentation and dissemination of practice research?
5. What does Cosector consider its role to be with practice research, both short-term and long-term?
6. What are the most common challenges faced by practice researchers in terms of technology?
7. What issues related to discoverability and interoperability have you encountered in terms of practice research? Have any solutions been proffered to improve the situation?
8. Do you think that the form of practice research is more or less important/challenging at this present time than the systems that host and disperse it? (Can the two even be separated?)
9. What do you think the role of research administrators and repository managers is with practice research?
10. If we were to propose a singular output form for practice research (with a defined metadata set), with parity to a book, book section or journal article, what do you think the challenges that might be faced in implementing it would be (in terms of repositories and other research aggregating systems)?
11. What impact do you think that Academia.edu, Google Scholar and other private research systems have upon practice research? Do you think it is important for the sector to work with these partners or to compete with them (or both)?
12. What challenges and issues for practice research have been caused by the existing software provision for institutional repositories in UK HEIs?
13. Do you think that practice research is solely applicable to arts and humanities researchers?
14. What do you see as the future for practice research?

APPENDIX 4: Sample interview questions for researchers

1. Please could you introduce yourself and how you became interested in the field of practice research?
2. What do you consider practice research to be? Do you think that there is a clear definition in existence?
3. Should there be a definition for practice research? What pros and cons might you consider in there being a definition stated?
4. In your research projects, you have chosen to use a specific term to mean “practice research” over others. Is there a particular reason for this? Have you revised your opinion over time?
5. Is practice research by nature a solely academic concern? (Who are the audiences for practice research?)
6. By defining practice research as a separate field to practice, is this detrimental to the status of practitioners in the academy?
7. Does research have to exist beyond the moment of its instantiation (to be considered as research)?
8. Does practice have to be documented (to become research)? What is the relationship between this documentation and the research?
9. What are the most common challenges faced by practice researchers in the academy?
10. Do technologies for the capture and presentation of practice research help or hinder practice researchers in the present day?
11. Do you think the presentation of practice research (in the contemporary) must always include a textual element in written form?
12. If we were to propose a singular output form for practice research (with a defined metadata set), with parity to a book, book section or journal article, what do you think the challenges that might be faced in implementing it would be?
13. What are the challenges of durability that face practice researchers when you consider their work over 10, 20, 100 years?
14. What impact do you think that peer review has upon the validity of stated claims / ways of knowing that emerge from practice research projects?
15. What do you think about a centralised body (different to a journal or publisher) for the peer-review of practice research outputs across England?
16. What do you think could be done to establish practice research as a transdisciplinary form of research? How could it be extended to disciplines?
17. What do you see as the future for practice research?
18. Do you hold the position that practice research is on par with qualitative and quantitative methodologies?
19. If practice can be considered a method in practice research, then is it possible for practice researchers to employ multiple other methods alongside it?
20. Could you give us examples of successful practice research projects?

APPENDIX 5: Sample interview questions for policymakers

1. Please could you introduce yourself and describe your relation to the field of practice research?
2. What do you consider practice research to be? (Do you think that there is a clear definition in existence? Should there be?)
3. Is practice research by nature a solely academic concern?
4. How do you think the historical situation of artist practitioners in relation to the academy (in England) informed the formation of practice research over the last thirty years?
5. What are the most common challenges faced by practice researchers in the academy?
6. Do you think that the processes involved in the formulation of practice research are intrinsically different to those that take place in more established forms of academic research (i.e. scientific study, philosophy)?
7. Do technologies for the capture and presentation of practice research help or hinder practice researchers in the present day?
8. In terms of the technical presentation of practice research, what issues related to discoverability and interoperability have you encountered? Have any solutions been proffered to improve the situation?
9. Do you think the presentation of practice research (in the contemporary) must always include a textual element in written form or could other media be used to present research?
10. If we were to propose a singular output form for practice research (with a defined metadata set), with parity to a book, book section or journal article, what do you think the challenges that might be faced in implementing it would be?
11. Would it be prescriptive or restrictive if we were to propose guidance for composing a research narrative for practice research?
12. What are the challenges of durability that face practice researchers when you consider their work over 10, 20, 100 years?
13. What do you think about a centralised body (different to a journal or publisher) for the peer-review of practice research outputs across England?
14. If you were to conduct a “practice literature review” where would you go?
15. What may be some ways to better represent practice research at funding and policy-making level?
16. What do you see as the future for practice research?