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# Design Practice Research: Conditions and Outcomes

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**ABSTRACT** There is no agreed framework for classifying what is, and is not, design practice research. This is a problem at a time when funders are interested in supporting practice research in the university context and look at design research as an example. This article addresses this challenge. Based on the key themes identified from a literature review—situated understanding, networked knowledge production, community of validation, and the knowledge status of objects produced through designing—we propose two frameworks. Collectively, the classificatory framework (specifying conditions) and the analytical framework (identifying outcomes) distinguish practice research in design from just *practice* on the one hand, and just *research* on the other. While allowing for historical and contextual variation, the approach offers a way of classifying practice research in design that is supported by practice researchers and that funders understand, without having to insist that there is something “ineffable” or ultimately inexpressible about practice research.

**research projects,  
including as Co-Director  
of a new international  
doctoral training network  
Sustainable Transitions  
through Democratic  
Design.**

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**KEYWORDS:** practice research, design research, research through design, situational inquiry

## Introduction

At a time when design researchers apply for research and innovation funding intended to mobilize academia to address public policy priorities, clarifying the distinctions between “practice,” “research,” and “practice research” is increasingly important. In this orientation of research to policy priorities, researchers associated with design are visible, since design is tied with “innovations” and “solutions” in academic funding, narratives created by national design organizations and universities alongside businesses and others. Design practice research is understood here as associated with product, service, interaction, Human-Computer Interaction (HCI), textile, material, and communication design in universities as well as research labs outside of academia. The broader context for the present intervention is the ongoing discussions among academics, practitioners, and funders about what practice research is and how it can be communicated and assessed, across creative practices and disciplines (e.g. Bulley and Şahin 2021; Leavy 2022; Vear 2021), and in design studies more specifically (e.g. Krogh and Koskinen 2020; Prochner and Godin 2022; Vaughan 2017).

As a precondition for classification and assessment in the university context, our objective is to clarify what counts as practice research associated with design. The article’s contribution is to propose a new way of categorizing design practice research through two related frameworks. The first framework is a classificatory scheme describing three conditions that must be met for something to qualify as practice research. This framework is not specific to design, but it spells out the grounds on which some design projects are categorized as practice research and not *just* practice or research. The second framework, specific to design, looks at outcomes and names what is produced through practice research in design, emphasizing that the outcomes of practice research are different from those of research and those of practice taken in separation.

What motivates this intervention? The need to make sense of practice research in design as *research* and not just as *practice* is a response to challenges both old and recent, but is most directly prompted by the “academization” of design and the need for the assessment in art and design higher education institutions. The institutionalization of design as an academic field raises the question of how—and under what conditions—findings from design practice research can be systematized, verified, and accumulated for the purposes of discipline building. Notably, the discussion takes place at a time when design researchers, including doctoral students (Davis et al. 2024), make claims to be generating solutions as well as

knowledge in relation to climate injustice, social change, and public policies, among other things; and when research funders are increasingly oriented to supporting “transdisciplinary” (Barry, Born, and Weszkalnys 2008), “mission-oriented” (Aagaard, Norn, and Stage 2022), and “impact-driven” research (Patton 2022). This triggers a range of consideration about benchmarking design practice research against other areas of funding, together with the fundamental question of what criteria of assessment should be applied. In these, classifications matter. By proposing a clear approach to classifying design practice research in the context of higher education institutions, we aim to inform the ongoing debates concerning the allocation of public investment to different areas of research, knowledge exchange, and innovation.

### **Approach and Theoretical Frames**

The study has been carried out by two researchers located in a higher education institution that conducts teaching, knowledge exchange, and research in design and the creative arts, and that is also committed to critical and contextual discussion of these. We reviewed a sample of literatures and sources identified across several different fields, which served to orient the inquiry and provide a foundation for the suggested frameworks. While not a systematic review of all available existing research,<sup>1</sup> this approach allowed us to map a fragmented field based on searches of online bibliographic and research databases supported by manual mapping of a cluster of related terms: practice research, practice-led research, practice-based research, research through practice, research through design. The authors worked abductively (Tavory and Timmermans 2014), moving between several literatures and revising iteratively to identify patterns and gaps in current research. To surface other perspectives and to identify additional resources, the authors hosted three workshops with doctoral students and staff at the University of the Arts London in late 2021 and early 2022 and organized an international symposium in May 2022. This iterative work helped to refine the proposals: for example, inviting twenty-five colleagues and Ph.D. students to respond to early versions of the frameworks in a two-hour workshop enabled us to assess their validity and relevance through the prism of concrete projects conducted by the participants.

As a starting point, we note that the nomenclature used to talk about practice research remains contested (Fisher and Taffe 2022; Leavy 2022). This is not just so for design but also creative practices more broadly. For instance, while Candy (2006) makes a distinction between “practice-based” and “practice-led,” the terms are used interchangeably in Rust, Mottram, and Till (2007). What confounds the situation further is that other disciplines, such as psychotherapy or public health, use these terms in different, discipline-specific ways (Bulley and Şahin 2021). Moreover, there are many terms currently in use. A long list of related terms is summarized by Bulley and Şahin

(2021), including practice as research, embodied research, participatory action research, and arts research. To cut across this semantic middle, along with Bulley and Şahin (2021), this article adopts the latter's strategy of using the umbrella term "practice research" to cover all variants. We claim that consistent use of the key terms is particularly cogent at a time when the funding settlement for creative subjects is being revised and the funders are considering best routes to support practice research.<sup>2</sup>

In terms of theoretical frames, we found the perspective of institutional theory useful (Danto 1964; Dickie 1974; DiMaggio and Powell 1983). Institutional approaches have "a common emphasis on cultural understandings and shared expectations" (David, Tolbert, and Boghossian 2019, 1) as a driver of changes in organizational structures and policies. This underpins our approach in the present paper. Rather than searching for some *essential* properties inherent to practice research, we claim that defining practice research calls for an understanding of the institutional rules and norms prevailing in the relevant environments (Friedland and Alford 1991; Scott 1995). Consequently, the classificatory approach proposed here is not wedded to some specific characteristics embedded in practice research; rather, it is presented in terms of minimal conditions and outcomes (this, we argue, is an advantage over alternative approaches in the context of design studies). This means that the classifications we propose can accommodate change in institutional cultures and expectations attached to practice research; at the same time, the frameworks we offer give an approach to decision-making that is non-ambiguous and easy to apply by those who lack expertise in design practice research. Complementing this institutional analysis, we draw on practical understandings of concrete, real-world issues, which foregrounds the primacy of experience and action, commonly cited in discussions of practice research in design (e.g. discussions of Donald Schon's (1983) work in Buchanan 1992; Bulley and Şahin 2021; Dixon 2020). To address ongoing challenges about understanding the status of outputs such as material artefacts in design practice research, we adopt a distinction made in studies of engineering design, specifically "C-K theory," which illuminates the relations between concepts and knowledge in designing (Hatchuel and Weil 2009; Le Masson, Weil, and Hatchuel 2010). The result is that what is produced through practice research in design is always more than *just* research and necessarily includes changes to the situations in which design practice research is conducted. It too is more than *just* practice, as practice research contributes to knowledge production in a way that can be stabilized, systematized, and accumulated.

### **Practice Research within Studies of Design**

The field of design research has been in formation since the practice of design became gradually institutionalized in art schools,

polytechnics, and universities (Alexander 1964; Archer 1979; Cross 1999; Simon 1969) to become an object of academic investigation and site for doctoral study (Phillips 2021; Vaughan 2017).

One of the seminal contributions to these debates comes from the moment when doctoral studies in creative design and the arts were being introduced in the UK and elsewhere. Citing art historian Herbert Read, Christopher Frayling (1993, 5) identified three kinds of relation between design and research: research could be *into art and design* (and so elucidating the character of practice), *through art and design* (when practice serves research purposes), or *for art and design* (supporting the aims of practice). While enduring, this triad does not define what practice or research is; rather, it takes “research” as a primitive given that can be combined with design (practice) in three different ways. Reflecting on this typology in 2015, Frayling was reported to have said that “if he retitled his research classifications today, they would be: ‘pure [basic] research, applied research, and action research,’ categories with methodological approaches and standards more generally understood across disciplines” (Davis et al. 2024, 290). Thus, this classification does not help with clarifying the status of design practice research specifically.

Frayling’s triad remains influential (e.g. Godin and Zahedi 2014), for example among researchers gathering at the Research Through Design (RTD) conferences.<sup>3</sup> But others have proposed a continuum between research and practice in designing. For example, Fallman (2007) talks about *research-oriented design* and *design-oriented research*. Indeed, several recent contributions come from HCI and interaction design, both fields in which “designers” work closely alongside or with “engineers” (re-)negotiating understandings of design (Ogunyemi et al. 2019). One example of efforts to clarify the contributions of research through design by Zimmerman, Stolterman, and Forlizzi (2010) resulted in an attempt to formalize how research through design contributes to knowledge in the context of interaction design. They propose that the significant criteria are: process (or methodology); invention (situating contributions in a body of knowledge); relevance (to a current state of the world); and extensibility (making the results available to communities). While this serves to articulate expectations about implementation and outcomes, it does not clarify the conditions or the status of objects produced through designing in the context of higher education institutions specifically.

In the “human-centered” creative design tradition, Sanders and Stappers (2008, 6) proposed a framework with two axes: one marked by the opposing ends of “led by design” versus “led by research”; the other one with “user as subject” versus “user as partner.” While widely cited, if analyzed through examples, the framework surfaces the difficulty of identifying the basis to decide whether projects are primarily “led by design” or “led by research.” As a result, while perhaps useful for other purposes, such approaches do

not serve the objective of distinguishing design practice research from design practice in categorical terms.

Other efforts to address the specificities of design practice research builds on traditions in Nordic design research rooted in the constructive approach to epistemology, e.g. Koskinen et al.'s *constructive* design research. Recognizing the varied forms of research in HCI, with lineages to computer science as well as the arts, Koskinen et al. sought to delineate more precisely types of design research. They highlighted “design research in which construction—be it product, system, space or media—takes centre place and becomes the key means in constructing knowledge” (Koskinen et al. 2011, 5). As a version of *thinking through making*—a term widely used by professional designers—such constructive research can be read as *design to know*, in that it is through designing/making and the consideration of made things in social settings that new insights and understandings are generated. As an application of this, Koskinen et al.'s *Design Research Through Practice: Lab, Field and Showroom* (2011) offered a typology of forms of design research, with distinct characteristics, each with its own institutional location and parameters, i.e. “lab” (often in large corporations or in computer science departments), “field” (in day-to-day life organized as a site of inquiry), and “showroom” (in galleries or museums, where design objects are usually reified). Illuminating as they are, these categories are not useful from the point of view of the objective set in this article. In other words, the typology proposed by Koskinen et al. in 2011 can be applied to the cases classified as practice research but not to identify what these are in the first place. The same is true of more recent work. The constructive approach to explaining how design artefacts are vehicles of knowledge creation was further elaborated in Krogh and Koskinen's *Drifting by Intention: Four Epistemic Traditions from within Constructive Design Research* (2020). In the book, they assert that producing knowledge through design practice requires the straddling of professional and academic “worlds” of design, but insist that this takes different manifestations in different projects and, thus, refrain again from proposing a set of overarching criteria for categorizing projects that can legitimately be deemed research from those that cannot.

Emerging from the Scandinavian context, Simonsen et al.'s *Design Research: Synergies from Interdisciplinary Perspectives* (2012) presents a similar view. Simonsen et al. argue that the priority is to understand the process of designing as knowledge construction as well as solutions construction. Here, again, it is through the activity of making and refining “solutions” that knowledge is materialized and generated, marking out a distinctive form of knowledge production in which material artefacts are closely implicated. Simonsen et al. surface an important consideration, namely the role of artefacts as vehicles for theory construction (Beck, Weber, and Gregory 2013; Bowers 2012) but, at the same time, arguably, neglect the role of

theory in design (Friedman 2003; Markussen 2017). Having asserted that design practice research should be expected to produce generalizable knowledge, they fall short of demonstrating how this knowledge is codified and reflected in the relevant institutional frameworks in higher education institutions. The crux of the matter is that, as Dorst (2016) and Krogh and Koskinen (2020) pointed out, knowledge of design and knowledge created through designing reside in both practice and in academic research, and there is little common ground and communication between the two. The need for approaches to straddle these two contexts of productions thus remains a challenge for many commentators; one that this article seeks to meet with its proposed frameworks.

A more recent contribution is Laurene Vaughan's edited collection of 2017: *Practice-based Design Research*, informed by the ongoing gathering of practice-based design doctoral researchers at RMIT University's bi-annual practice research symposia (RMIT 2024). Although the collection offers no overarching consensus about how practice research in design can be defined, assessed, articulated, and communicated as research, many of the papers published in this context suggest interesting trajectories to explore (see Hagan and Barron 2019 for an overview of key themes). One important contribution to the 2017 collection is the chapter by Binder and Brandt, who argue:

Our suggestion is to see design research practices as fundamentally homologous to any other design practices, both in terms of the way they are driven forward by a dialectic between programme and experiment and in how they actualize potentialities through experientially manifesting 'the possible'. This does not mean that design practices are in themselves research practices. Research practices must be answerable to a research question or concern that resides outside the programme. (Binder and Brandt 2017, 101–2)

Thus, Binder and Brandt are able to distinguish between projects in design that are practice research and those that are not, but only at the cost of suggesting that research questions originate outside of a design program, rather than arising from within (see also Brandt and Binder 2007). This position is not shared across the creative practice research community, especially among those committed to the primacy of the creative processes and artifacts as epistemic drivers in design practice research.

An interesting attempt to bridge the specificity of the understanding of design research processes with the institutionally imposed understanding of what counts as "research" in higher education contexts is presented in Prochner and Godin (2022). Acknowledging that "there is no consensus on how to judge the quality of RTD projects, which makes them difficult to plan and evaluate" (Prochner and Godin 2022, 1), the authors propose a set of quality indicators to use



in assessment of RTD projects. While this approach would be helpful from the point of view of quality assessment, imposing a metric (even of pragmatic character, as the authors insist) is problematic given the dynamic and historically changing nature of design practice research. Simply put—and in line with the institutional characterization of practice research espoused in this article—the assessment indicators are highly contingent and context specific with consensus difficult to reach. To circumvent this, in this article we opt to talk about conditions for practice research, as this allows for precision on the relevant criteria, while accepting historical and geographical variations in actual manifestations and how the proposed conditions can be met. Enforcing the need for our institutional approach, and confounding Prochner and Godin's proposal further, is that some long-standing debates about quality can be seen in conflict with emerging vectors re-shaping the institutional landscape for design research in relation to the demands to include situated positions (e.g. Keshavarz 2018). This further problematizes any attempts to “regulate” the field using quality indicators.

Other scholars in design have opted for a different route to show how the process of designing results in new knowledge and thus can be considered research. Niedderer's (2021) starting point is to revisit the concept of *propositional knowledge*, understood as justified true belief, as it is contrasted with *non-propositional knowledge*, such as procedural and experiential knowledge. However, Niedderer argues that experiential knowledge underpins both propositional and procedural knowing. Moreover, she argues that propositional knowledge contains non-propositional content and vice versa, and that tacit knowledge has aspects that can be expressed in propositional terms. This, Niedderer claims, offers a way of “revisiting the role and format of knowledge in research, in particular of tacit knowledge, with regard to its inclusion and communication” (Niedderer 2021, 250). Her approach is interesting, but its success hinges on demonstrating the “surplus” unique to practice research that is not adequately captured by existing definitions of research which privilege propositional knowing. Here, Niedderer acknowledges that, while the propositional content part of non-propositional knowledge can be made explicit, the tacit part cannot, and the acceptance of it as satisfactory evidence within research may rely on pointing at, and sharing of, a common understanding and interpretation of, the tacit content. (Niedderer 2021, 250) Thus, relying as it does on the notion of tacit knowledge, the proposal still risks consigning parts of the distinctiveness of practice research to the realm of the ineffable.

The discussion above is selective but, arguably, captures well a range of positions taken in relation to practice research in design literature. The positions are wide ranging and at times seemingly contradictory: compare Sanders and Stappers' (2008) suggestion that “led by design” and “led by research” mark a spectrum on which practice research sits with Binder and Brandt's (2017) argument that

practice and research are homologous; or Koskinen et al.'s (2011) argument concerning the explicitly epistemic character of knowledge construction in design practice research to Niedderer's (2021) anchoring of practice research in "tacit knowledge." The overview shows that the question of what constitutes design practice research is far from settled and the agendas, logics, and vocabularies developed within it are fragmented. Indeed, some may want to argue that this lack of unity is to be celebrated as it reflects the varied and particularized nature of the field itself (Stappers and Giaccardi 2014). The result is, however, the lack of a systematic research foundation for much of the knowledge generated through designing and the lack of institutional recognition of the contribution that design practice research makes in the context of higher education institutions.

### **Towards a New Understanding of Design Practice Research**

Efforts to clarify practice research are ongoing in closely related research domains that share with design a foundation in creative practice. One recent attempt at consolidating the field comes in *The Routledge International Handbook of Practice-Based Research* edited by music scholar and practitioner Craig Vear (2021).

Vear brings together the significant amount of work underway to develop approaches and frameworks to understanding practice research cutting across different disciplines. Writing in the introduction to this handbook, Linda Candy, Ernest Edmonds, and Craig Vear define practice research as:

A principled approach to research by means of practice in which the research and the practice operate as interdependent and complementary processes leading to new and original forms of knowledge. By 'practice', we mean taking purposeful actions within a specific context, typically in a creative or professional way: the making, modifying or designing of objects, events or processes. (Candy, Edmonds, and Vear 2021, 27)

This exposition can span different examples of practice research (as exemplified in the different contributions to the handbook) but leaves an interpretative leeway with regard to what is meant, for instance, by interdependence and complementarity. It is possible to argue that most research contains an element of practice in the sense articulated by Vear et al. and, yet, clearly not all research can be classified as practice research. In other words, Vear et al. do not offer an approach for deciding what counts and what does not count as practice research that can be readily applied by those not familiar with creative practice.

We are therefore confronted with a dilemma of either celebrating the particularities of practice research (see Koskinen et al. 2011; Stappers and Giaccardi 2014) or imposing external and/or fixed

distinctions for the sake of the generalizations needed for decision-making and classification of design practice research in the context of higher education institutions (in terms of research questions, e.g. Binder and Brandt 2017; or quality indicators, e.g. Prochner and Godin 2022). As suggested, in this article we want to take an alternative route.

Our approach is informed by four key themes that collectively underpin the approach—and the frameworks—we propose. These are derived from the more wide-ranging literature review informing this project (Kaszynska, Kimbell, and Bailey 2022). First, there is the importance of *situational understanding* and analysis to make sense of practice research. Being situated stands for a specific mode of knowledge acquisition that relies on experiential and direct acquaintance with the contexts in which knowledge is produced. In other words, knowledge has to be explicated in relation to these contexts, calling for a specific form of “context-based, process-oriented description and explanation” (Andersson, Hallberg, and Timpka 2003, 50; also see Dewey 1938). And, unlike other research paradigms, in which the expectation might be that the research process does not interfere with the situation, in practice research the opposite is true: the context is changed somehow by the research. Situated forms of knowledge production are different from theory building in basic research because of how they are carried out and what they achieve.

The second theme is that of *networked knowledge production*. The “clues” to what is and is not practice research are not to be found in the particular manifestations of practice research, but, rather, in the institutional discourses and institutional logics grounding their production and assessment. In the light of the institutional theory of art (Danto 1964; Dickie 1974) and the idea of institutional “ecosystems” embedding and organizing practices (DiMaggio and Powell 1983)—in order to understand why some but not all instances of practice are research—we need to understand “supraorganizational patterns of human activity” (Friedland and Alford 1991, 243). With design practice research, this means locating design in relation to relevant publics and academic contexts.

The third theme we identify is that the assessment of practice research calls for an appropriate *community of validation*. This is because the criteria for the assessment of practice research cannot be universally fixed. The review of literatures across different domains impressed on us the importance of the sister notions of “communities of inquiry” (Dewey 1938) and “communities of practice” (Lave and Wenger 1991); be it in relation to participatory models in health research (Mold and Peterson 2005), the efforts to understand academic–practitioner relationships and the implications these have for research in management (Bartunek and Rynes 2014), or in relation to assessment criteria appropriate for practice research in education (Furlong and Oancea 2007). Collectively, this suggests a

different model of accountability, in which research is answerable to a relevant and diverse community of validation that understands both the conditions of practice as well as research.

A fourth theme is the consideration of the *outcomes and objects mobilized* in or produced through design practice research. Much of the literature in practice research, including in studies of design, is unclear about the knowledge status of material and objects produced through designing. For some researchers, the role of the output is to document research (Bulley and Şahin 2021). Others have turned to the social studies of science and technology to articulate the role such material artefacts play, using concepts such as “immutable mobiles” (Latour 1986) and “boundary objects” (Star and Griesemer 1989). Meanwhile, within social studies of science, accounts of “inventive research” (Marres, Guggenheim, and Wilkie 2018) foreground objects as agential in research. While these all point to the agency of material artefacts in design practice research, what is lost is the relation of such outputs to the communities of validation outside of research, such as those termed “users” or “stakeholders” or, indeed, “designers” alongside “researchers.”

To address this—and to underscore the particularity of design practice research in our classificatory approach—we use a theorization of design advanced in studies of engineering design. In what is known as C-K theory, Armand Hatchuel and colleagues (Hatchuel and Weil 2009; Le Masson, Weil, and Hatchuel 2010) propose that, through designing, new concepts and knowledge are produced. For these theorists, unlike knowledge (K), a concept (C) is neither true nor false; it simply is. Through a dialectic, not in parallel, the mutual interactions between C and K result in new articulations expanding beyond what was there before. New knowledge prompts the identification of new concepts, while the elaboration of new concepts results in a search for new knowledge. This means that producing new concepts, through the creative work of designing, is part of the knowledge production process and vice versa. Put another way, it is through the expansion of the C-space alongside the K-space that designing proceeds.

Using C-K theory solves the problem of how to understand the interplay between concepts and knowledge created through practice which—in design, as in other forms of creative work—are often materialized. Using C-K theory allows us to take seriously the material outputs produced through designing and to seek both concepts and knowledge in their creation and unfolding. Artefacts produced through design can be analyzed for the extent to which they embody new concepts *and* contribute to the generation of new knowledge in the expansion processes associated with designing. Similarly, rather than categorizing such knowledge as heuristics or tacit, and thus difficult to judge via the current standards for research, attending to the interplay between concepts and knowledge (as materialized into objects, processes, and practices) foregrounds the constructive and

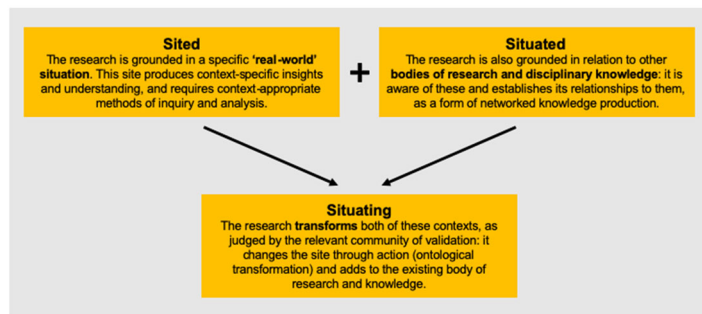
situated nature of design practice research and the communities to which these objects are addressed. These considerations connect with the earlier discussion on constructive knowledge production, which emphasizes the making of and engagement with artefacts to produce new outcomes, but provides a more clear-cut way of distinguishing *outcomes* produced through the creativity and knowledge-generating contributions of design practice research.

### Towards Classifying Design Practice Research

Building on the four themes we outlined, we propose two frameworks. The first identifies three conditions of practice research that have to be collectively met for something to be considered practice research as such (it is not specific to design practice research). We use the term conditions, rather than principles (e.g. Vear 2021) or definitions (Bulley and Şahin 2021) because we do not assume that there are universal and essential properties for something to be practice research. Rather, practice research is historically contingent and variable a construct. Nor do we believe the field requires principles to regulate practice. The conditions reflect the institutional expectations at this point in time.

The Triple S Framework (see Figure 1) helps clarify how practice research is different from research in that it is *sited* in a real-world situation from which insights and knowledge emerge; it is different from practice because it is *situated* in relation to a body (or bodies) of academic research; and it is *situating* because it produces objects as well as knowledge and results in ontological transformation: the world is changed somehow as a result of the research.<sup>4</sup>

The second framework addresses the task of characterizing outcomes of practice research *in design*. Assuming the three conditions in the Triple S scheme have been met, the outcomes framework clarifies the status of objects and contributions made through design practice research. Using distinctions from C-K theory, we propose distinguishing between two irreducible but interrelated products of practice research in design: first, new *concepts* and, second, new



**Figure 1**  
The Triple S framework.

*knowledge*, which can be found in the range of material, digital, and other outputs produced through design practice research. We see these as relationally articulated and unfolding through design research within three domains:

- the *site* or issue domain that the practice research addresses, with its attendant communities of validation and bodies of knowledge;
- the domain of current *design practice*—understood in terms of “design-as-practice” (Kimbell 2011)—the situated doings and sayings of those involved in designing in institutional settings in relation to a community of validation and body of knowledge; and
- the domain of current *design research*, understood as a situated, knowledge-producing, institutionalized practice with a related body of disciplinary knowledge and communities of validation.

Table 1 summarizes these intersections, to show the specificities of the concepts and knowledge produced through design practice research in each of these three domains. This way of characterizing practice research in design is consonant with the institutional definitions of practice research as well as the conditions of production of practice research. Practice and acting in the world (doing, intervening, changing things) are recognized here as imperative and intertwined, but so too is the contribution to the existing stock of knowledge and the engagement with existing scholarly debates,

**TABLE 1**  
**Outcomes of design practice research.**

What is produced through design practice research	For the site	For design practice	For design research
Concepts	New abstractions associated with innovations, solutions, inventions or artefacts for the situation and communities of validation in the site	New abstractions associated with design practice and communities of validation, e.g., new or improved design methods	New abstractions associated with design research and communities of validation e.g., new or improved research methods
Knowledge	New understandings in relation to a body of knowledge and communities of validation in the site	New understandings of design practice, in relation to extant research work and communities of validation	New understandings of design research, in relation to extant research work and research communities of validation

processes, and infrastructures associated with communities of validation.

### Worked Example

To bring this discussion to life, we offer an illustrative example of a design practice research project, mapped across the scheme and the framework we have proposed. This example has been inspired by doctoral research at the University of the Arts London.<sup>5</sup>

A designer-researcher with expertise in fashion and circular materials is carrying out practice research in the domain of womenswear, focusing on older women from a particular community (The project is displayed in Table 2). Through their inquiry, this designer-researcher produces new concepts and new knowledge for the situation, for design practice, and for research in relation to communities of validation and bodies of knowledge. In this example, the design practice research produces what is shown in Table 3.

### Discussion

Through the review of contributions in design studies, and in relation to creative practice more broadly, we have identified a gap in literature corresponding to a practical need to support classification and assessment of design practice research in the context of higher education institutions. The challenge emerging from the reviewed literature in design studies and creative practice is that of retaining the specificity of practice research while making it possible for decision-making (including funding allocation) to identify what counts and does not count as practice research. We note that this goal is better achieved without importing standards and metrics from other areas and domains and applying them in the context of practice research where they may not be suited. We argue that this is better accomplished without resurrecting essentialism and postulating some ahistorical, universal properties inherent to practice research, as practice research is a historically evolving and institutionally framed construct. Lastly, we accept that the challenge of classifying practice research

TABLE 2

**Worked example: Examining the conditions of practice research for the fictional doctoral case.**

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**Sited:** focusing on the lived experience of women from a particular age group and community and engaging directly with them, recognising them as participants in the research because of their lived experience and expertise

**Situated:** drawing on a body of knowledge about womenswear and circular materials within a community of inquiry, engaged with other relevant academic research

**Situating:** producing new concepts for womenswear based on a circular materials approach, and producing knowledge accepted by communities of validation involved in women's underwear such as designers, as well as contributing knowledge that is accepted by the relevant community of validation in academia

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**TABLE 3**  
**Worked example: Outcomes for the fictionalised doctoral case.**

	For the site	For design practice	For design research
Concepts	New ways for older women to relate to their bodies, clothing and communities, accepted by a community of validation in the site	A new way to enable women to explore and respond to prototypes, accepted by a community of validation in practice	Contributions to theories, frameworks, datasets, analysis or cases, accepted by a community of validation
Knowledge	New insights into how older women relate to their bodies, clothing and communities, accepted by a community of validation in the site	A new methodology to enable women to explore and respond to prototypes, accepted by a community of validation	Contributions to theories, frameworks, datasets, analysis or cases, accepted by a community of validation

should be met without insisting on some tacit characteristics which, by definition, cannot be articulated.

In order to avoid these issues, we appeal to the key themes we identified in research literatures that underpin the development of our approach. These themes are: the need for *situational understanding* and analysis; the requirement to see the attempts to define practice research in the context of institutional ecologies as a form of *networked knowledge production*; and the ensuing necessity not to fix the assessment criteria for practice research but, rather, to see the assessment as a form of practice in its own right and something performed by a *community of validation*, including researchers, practitioners, and publics. Lastly, we highlight the importance of *material artifacts in knowledge production* through design practice research as a way of retaining specificity in our approach, recognizing the significance of material and visual artefacts in design practice research. Accordingly, the frameworks proposed here grow out of a contextualization of practice research in institutional terms and being sensitive to the particularities of design practice research. This makes the proposed frameworks historically flexible and context specific, while being non-ambiguous as well as being fit for purpose in terms of supporting decision-making in the context of higher education institutions.

## Conclusion

This article seeks to build common ground to classify design practice research in the university context and so to begin responding to an ongoing challenge of making design practice research accountable



(in evaluation terms) and accumulable (in terms of forging a systematic and growing body of knowledge). This should offer a platform for the future development of a field of design practice research. The proposals made in this paper are meant, among other things, to assist the development of a new peer review system capable of assessing practice research without importing standards uncritically from the established discourses largely grounded in the understanding of research in science, technology, engineering, and mathematics (STEM) subjects, or relying on assessment criteria that are immutably fixed as something capturing the essential qualities of creative practice research but which cannot be well communicated.

We recognize that some designers may seek to resist the need to classify, categorize, and taxonomize the types of projects delivered through their expertise, be it professional or academic.<sup>6</sup> Our response is to note that if the design community does not declare itself with respect to how it contributes to a systematic knowledge production that can be classified as research, others will do it on its behalf (and, most likely, in the way that does not respect the nature of practice research in design). We therefore hope our contribution will be useful not just in terms of the management of research and funding, but also for community building in design practice research.

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### **Notes**

1. As a term, "practice research" began to appear in academic publications in the 1990s and its use has grown steadily since then: "the greatest and earliest use of the term was in various fields of medicine and healthcare professions, with increasing use in education, creative arts and humanities in more recent years" (Michaels 2021, 42). It is beyond the scope of this paper to review every discourse in which practice research has become established, but it is important to note that important discussions are taking place in education (Furlong and Oancea 2007; Kemmis 2009), social care, health and medicine (Clift 2012; Joubert and Webber 2020), and

- management (Bartunek and Rynes 2014; Seidl and Whittington 2014). The full list of references can be found in Kaszynska, Kimbell, and Bailey (2022).
2. For instance, in the UK, a note summarizing the current support and future commitments to funding practice research at the Arts and Humanities Research Council (AHRC) was released on March 3, 2023. <https://www.ukri.org/blog/practice-makes-perfect-how-ahrc-is-supporting-practice-research/> (accessed January 10, 2024).
  3. <https://www.researchthroughdesign.org> (accessed March 2, 2024).
  4. The terms “sited,” “situated,” and “situating” make an implicit reference to Dewey’s theory of inquiry that is deemed “situational” in the sense that it highlights the importance of the context but also the transformational effects of the inquiry and how it is conducted (Dewey 1938).
  5. The specific project that inspired the worked example comes from a practice research project by Kadian Gosler (London College of Fashion, UAL), *Smart Bras: Developing an Experience-Centred Bra Wearables Design Process*. The researcher presented at one of the workshops and their project was discussed by a group of Ph.D. students and researchers attending. With their permission, the authors of this article extrapolated key generalizations about the approach to construct a fictional case that was in turn used to populate the frameworks in this article for illustrative purposes.
  6. This may be true of intentionally “hybrid” initiatives such as EPIC (<https://www.epicpeople.org/what-is-ethnography/#>, accessed January 10, 2024), where anthropologists and design professionals discuss techniques and approaches originating in academic disciplines but without being motivated by wanting to systematize discipline building or for the purposes of assessment in a competitive funding environment.

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