

Supervising Practice-Based Design Research: Business as (Un)usual? Work-in-Progress Part 1

Ria (HM) Van Zyl

IIE-Vega, South Africa

rvzyl@vegaschool.com

Abstract: Practice-based design research encompasses scholarly inquiry wherein design activities and processes are integral to scholarly research and postgraduate studies. The Department of Higher Education and Training (DHET) also recognises such research activity as credit-bearing 'creative output', but report a lack of rigour, especially in the communication design field, where no such submissions in the previous review cycle could be awarded. This work-in-progress paper starts with a theoretical exploration of the nature, complexity and potential of practice-based design research, with a specific lens on communication design. Existing literature underscores a myriad of challenges inherent in this space, including the quest for a unified language and theoretical frameworks, the identification of suitable methodologies and research designs, and concerns regarding scholarly rigour, transferability, and trustworthiness of findings. Nonetheless, practice-based research in design provides researchers and postgraduate students the potential to be innovative and to abductively harness the possibilities of design and design thinking in the research space. Embracing and developing practice-based design research as an acceptable paradigm might also encourage more postgraduate enrolment and success since it builds on skill sets that are more familiar to designers, might better align with the knowledge needs of industry, and might, in the end, build capacity for this type of research output. This work-in-progress paper forms a theoretical background for a future study to shed light on South African supervisors and students' challenges in this space. By exploring these challenges, this research will contribute insights to the field, enriching our understanding of the dynamics within practice-based design research and providing guidance and support for those in supervisory roles within this domain.

Keywords: Supervision, Practice-based research, Postgraduate design studies, Communication Design

1. Introduction

Research and scholarship in the discipline of design in South Africa is a developing area with few postgraduate students and programs (van Zyl, 2024). Communication Design falls under the Design and Applied Arts (0302) CESH, which also includes Design and Visual Communications, General; Commercial and Advertising Arts; Industrial Design; Commercial Photography; Fashion/Apparel Design Interior Design; Graphic Design; Illustration Design and Applied Arts, Other. The naming convention in the Design and Applied Arts CESH does not do justice to the way Communication Design transformed to the design of interactions and experiences such as Interface (UI), User Experience (UX) and Learning Design (García Ferrari, 2017; van Zyl & Carstens, 2023). Therefore, although communication design is the focus of this study, the broader shift in disciplinary practice is implied.

The Design and Applied Arts CESH reported 320 master's degree graduates and 35 doctoral graduates in the 12 years from 2010 to 2021; this translates to an average of only 27 masters and three doctoral graduates per year across all the fields in the CESH in South Africa (van Zyl, 2024). These numbers exclude graduates who drifted into other disciplines or merged with Fine/Visual Arts; still, the numbers would not change significantly even if these were included.

International design institutions use both the traditional IMRAD-type (Introduction-Method-Results-Discussion) format as well as Practice-based Design Research (PBDR) at postgraduate level, where PBDR dissertations and theses are richly illustrated (De Lange & Ndlovu, 2019). The inclusion of design projects and the submission of project documentation and artefacts as research evidence has now, for many years, been accepted in countries such as UK, Australia, New Zealand and Scandinavia (Vaughan, 2017).

De Lange & Ndlovu (2019) point out that South African postgraduate design research that uses the traditional IMRAD approaches compares well with international output but that our practice-based and applied research in design disciplines can still be developed, and proceed to ask the critical question of whether we have supervisors and examiners with suitable academic and practical expertise? Challenges experienced by supervisors and students when conducting PBDR at a University in South Africa were the entangled relation between theory and practice, generalised and bureaucratic institutional structures and the presentation of such projects as a body of knowledge (Perold-Bull et al., 2023).

This paper is a work-in-progress, driven by the research question of whether supervising practice-based design research is 'business' as usual or unusual. I start by theoretically unpacking the complex and ambiguous nature of practice-based research. This is followed by a short review of the literature on using PBDR in postgraduate studies, specifically focusing on supervision, student challenges, and experiences. This research aims to provide

conceptual understanding to develop knowledge of this type of research and develop supervision capacity in the communication design space.

2. (Still) in Search of a Shared Understanding

Design is seen as directed to the future, shifting from the known to the unknown and uncertain, a world that does not exist, that values inspiration, use, purpose and demonstration (Jonas, 2014; Koskinen et al., 2011; Stappers, 2007). Designers use associative, generative, and inductive thinking and visual notations, such as sketching, making models or prototypes, and conjecturing the possible (Stappers, 2007). Research, on the other hand, seeks to understand and explain the present and past with rigorous analysis, value, validity and proof, logical reasoning, deduction, empirical measurement, verbal notation and the development of structured theories and ruling out the impossible (Stappers, 2007; Koskinen et al., 2011).

A rich discourse and debate explore the relationship between design and research; however, there is still no consensus (Stappers, 2007). Jonas (2014) turns to critical systems thinking and cybernetics as suitable paradigms of inquiry with the underlying logic of induction–abduction–deduction, with abduction as the designerly mode or activity when conducting what he calls Research Through Design (RTD). Jonas (2014) explains that *induction* is aligned to analysis (or inspiration, system knowledge, scenario field analysis); *abduction* to projection (or ideation, design exploration, transformation, scenario prognosis) and *deduction* to synthesis (or practice, the real, scenario building).

Stappers (2007), on the other hand, argues that the Stokes's four-quadrant research model (See Figure 02 in Stappers, 2007) could provide a suitable paradigm for PBDR. The Stokes model breaks the linear model that only differentiates between basic or applied research (Stappers, 2007) by providing the opportunity for both generalisable knowledge and application at different levels or scales (Stappers, 2007), thus allowing for both to be present, albeit with varying foci while doing PBDR.

Koskinen et al. (2011:5-6) call this type of research "constructive design research", where the constructed design leads to the construction of knowledge. The construction could be a scenario, a mock-up or a detailed concept (Koskinen et al., 2011). Examples of such design research would not be possible without a design background, for example, Dunne's work in the UK and Sade in Finland (Koskinen et al., 2011). Koskinen et al. (2011) differentiate between construction and constructivism in that some form of 'construction' guides the process, instead of the way social scientists use constructivism as the constructing of meaning. Constructive design research can take place in the lab, field or showroom (Koskinen et al., 2011) The lab is a more controlled environment, decontextualised with reduced variables, however, with the added challenge of the designer's skill and intuition during the design phase (Koskinen et al., 2011). Therefore, this design lab cannot be identical to a science lab.

Koskinen et al. (2011:70) point out that design researchers prefer to work in the 'field', rather than the 'laboratory', where first-hand experience of the context is valued. This 'working in the field' is extended to co-design and co-creation where the design process is opened to users, non-designers and stakeholders, with the designer becoming a facilitator. Frontrunners of this type of research can be found in Italy, Milan with the purpose of designing sustainable and social solutions (Manzini, 2015).

Koskinen's third site, the 'showroom', functions more like art research where the research is presented in a gallery, for viewers to experience. In the design space, a 'showroom' approach can be used for critical design to elicit comments, disrupt, or critique (Koskinen et al., 2011). Here, the exhibition takes on the role of a publication that could incorporate video, photography, and user responses.

These debates highlight an important question on how the type of design research will be evaluated – should the design activity be aesthetically, structurally or conceptually good (Koskinen et al., 2011)? Or should the outcome be assessed in the way the research questions were answered, as knowledge contribution... for example, negative cases such as design that fails as design, but contributes to knowledge? Debates about the epistemic framework still point out challenges around rigour and scientific validity, a "paradox" and "contradiction" (Jonas, 2014).

3. Similarities Between Design and Research

One way to move the debate forward is to focus on what design and research have in common (Stappers, 2007). Stappers (2007) identifies the most significant overlap between design and research as the cyclical nature of developing and reworking ideas and testing them in real-world scenarios. "Both design and research are

characterised by iterative cycles of generating ideas and confronting them with the world" (Stappers, 2007:82). Stappers (2007) points out that most university curricula include theoretical knowledge and research but that the inclusion and adoption of design skills and methods in research programmes is much slower. He attributes this to the prejudices that had to be overcome and the fact that appropriate types of research had to be developed to be used by a new generation of doctoral students (Stappers, 2007). The distinct design fields will also impact the way PBDR is done. Industrial design, for example, focus more on physical outcomes, sketches, prototypes, whereas Interaction design is time-related with personas, scenarios and interactions as part of the design process (Koskinen et al., 2011). Design as a discipline also evolves with new tools, contexts and challenges (Frascara, 2022; Meyer & Norman, 2020; Redström, 2020). This means that supervisors need to supervise design projects situated in unfamiliar design contexts and tools, using design and research approaches that they most likely have not experienced first-hand.

4. Postgraduate PBDR, Supervision and Student Support

Although PBDR could fit into what is described as a 'modern' doctorate (Lee, 2018), the nature of PBDR studies is diverse. The inclusion of some form of creative or applied output is locally recognised in both local Masters and Doctoral studies: "candidates may also present peer-reviewed academic articles and papers, and, in certain fields, creative work such as artefacts, compositions, public performances and public exhibitions in partial fulfilment of the research requirements" (CHE, 2013: 40). The Higher Education Qualifications Sub Frameworks allows for doctoral degrees that are pure discipline-based or that uses multidisciplinary or applied research (CHE, 2013). There is, therefore, no reason for more applied and practice-based design research not to be accepted in postgraduate studies. Furthermore, the Department of Higher Education (DHET) also recognises such research as formal research output (DHET, 2020). The National Research Foundation (NRF) manages these outputs according to a system of evaluation that determines whether such research is equivalent to research published in peer-reviewed articles or scholarly books and worthy of subsidy. In the latest Creative Outputs report (DHET 2023), no submissions in the 'Graphic Design' space were made. The previous Creative Outputs Report (DHET 2020) mentioned that no Graphic Design units were awarded. Both reports note a lack of scholarly rigour in the design space. Music achieved 58 units, Fine Art 48, Theatre Performance and Dance 12 units, with Design as a general category declining to 3 units (DHET, 2023). Therefore, one can only wonder why we have such low participation and success rates in the design space and if (or how) this could relate to using PBDR at postgraduate levels?

De Klerk (2019) identified two problem areas when looking at PBDR at postgraduate levels in South Africa – the first is the lack of consensus on the terminology and nature (such Practice-Based vs Practice-Led) and the articulation of the contribution. Perold-Bull et al. (2023) wrote an enlightening paper on the challenges her two students experienced when presenting at departmental progress seminars where the panel did not understand their research. Design research in their institution is integrated with Fine/Visual Arts. As a supervisor, she had to lead the students in re-grounding their research as it was situated in the design domain. She echoes students' questions regarding program structure and design alignment in the current shared Visual Arts MA programme at Stellenbosch University (SU) and points out that design students often feel lost (Perold-Bull et al., 2023). It could be that the department feels more at ease with Koskinen et al's. (2011) "showroom" approach without taking the nature of design research into account. Despite these challenges, researchers and supervisors from SU such as Haese and Costandius published several articles and case studies rooted in PBDR (van Zyl & Carstens, 2021; Haese et al., 2018).

Besides the contributions by the supervisors at SU, very few other critical studies have been published on the nature and supervision, as well as student experiences when using PBDR in Communication Design postgraduate studies. Also, only a few sources about PBDR in other design-related fields were located, such as Fashion (Harvey et al., 2019) and Photography (De Klerk, 2019).

Supervisory challenges are discussed in international literature, for example, in music, where the balance between the needs of students and institutional imperatives, finding suitable local examples, superior and student wellbeing and the supervision of colleagues were identified as problematic (Emmerson & Harrison, 2009). Hamilton and Carson (2015) also recognised the need to develop research education leadership and suitable supervision pedagogy in creative practice disciplines. De Lange and Ndlovu (2019) stated that South African design disciplines need to build capacity for supervising staff and examiners with suitable academic and practical expertise and experience, which may be difficult.

5. Future Research

If we in South Africa as a discipline want to argue for accepting PBDR as legitimate, then we need to develop a clear explanation and shared understanding of what we deem acceptable practice for Masters and Doctoral students. Stappers (2007) point out that abstract debates about the nature of PBDR often confuse rather than enlighten, especially when dealing with politics and funding. We do not yet see the type of funding and collaboration between industry, academy and support of communities of practice as Vaughan (2017) mentioned.

This work-in-progress paper contributes a snapshot of the challenges experienced when conducting PBDR in South Africa. It confirms the need for a more systematic analysis of current practice and supervisors and student experiences. The study focused on communication design; however, the preliminary literature review revealed a gap in all design fields and indicated the need for a broader study. The next step in my research journey is to expand the literature review, map the current PBDR-space at Masters and Doctoral levels in South Africa, select participants based on the map and develop a suitable research instrument.

I believe that PBDR could encourage more interest in postgraduate design research and could better align with industry knowledge needs. However, this would require developing a shared understanding and sufficient supervision and institutional capacity.

References

- CHE. (2013). *The Higher Education Qualifications Sub-Framework*. Council on Higher Education (CHE).
- De Klerk, A. (2019). Transferring Experiences from a Photography Practice Research PhD Study into a Creative Practice-Teaching Context. *DEFSA CONFERENCE DESIGNED FUTURES*, 48–56. www.defsa.org.za
- De Lange, R. W., & Ndlovu, E. (2019). Assessment of Postgraduate Studies: Are we missing the mark? *8th International DEFSA Conference 2019 Designed Futures*. www.defsa.org.za
- DHET. (2020). *Creative Outputs Report 2020*.
<https://www.dhet.gov.za/Policy%20and%20Development%20Support/signed%20Creative%20outputs%20report%202020.pdf>
- DHET. (2023). *Creative Outputs Report 2023*.
<https://www.dhet.gov.za/Policy%20and%20Development%20Support/CREATIVE%20OUTPUTS%20REPORT%202023.pdf>
- Emmerson, S., & Harrison, S. D. (2009). The challenges of supervision of a doctorate in practice-based research in music: perceptions of students and supervisors. *TEXT*, 13(Special 6). <https://doi.org/10.52086/001c.31580>
- Frascara, J. (2022). Revisiting “Graphic Design: Fine Art or Social Science?”—The Question of Quality in Communication Design. *She Ji*, 8(2), 270–288. <https://doi.org/10.1016/j.sheji.2022.05.002>
- García Ferrari, T. (2017). Design and the Fourth Industrial Revolution. Dangers and opportunities for a mutating discipline. *Design Journal*, 20(sup1), S2625–S2633. <https://doi.org/10.1080/14606925.2017.1352774>
- Haese, A., Costandius, E., & Oostendorp, M. (2018). Fostering a Culture of Reading with Wordless Picturebooks in a South African Context. *International Journal of Art & Design Education*, 37(4), 587–598. <https://doi.org/10.1111/jade.12202>
- Hamilton, J., & Carson, S. (2015). Supervising Practice: Perspectives on the supervision of creative practice higher degrees by research. In *Educational Philosophy and Theory* (Vol. 47, Issue 12, pp. 1243–1249). Routledge.
<https://doi.org/10.1080/00131857.2015.1094904>
- Harvey, N., Ankiewicz, P., & Van As, F. (2019). Design-Based Research: Bridging the gap between fashion design education and research on design. *DEFSA CONFERENCE DESIGNED FUTURES*, 116–130. www.defsa.org.za
- Jonas, W. (2014). The strengths / limits of Systems Thinking denote the strengths / limits of Practice-Based Design Research. *FormAkademisk - Forsknings Tidsskrift for Design Og Design Didaktikk*, 7(4).
<https://doi.org/10.7577/formakademisk.789>
- Koskinen, I., Zimmerman, J., Binder, T., Redstrom, J., & Wensveen, S. (2011). *Design Research Through Practice : From the Lab, Field, and Showroom*. Elsevier.
- Lee, A. (2018). How can we develop supervisors for the modern doctorate? *Studies in Higher Education*, 43(5), 878–890.
<https://doi.org/10.1080/03075079.2018.1438116>
- Manzini, E. (2015). *Design, When Everybody Designs*. The MIT Press. <https://doi.org/10.7551/mitpress/9873.001.0001>
- Meyer, M. W., & Norman, D. (2020). Changing Design Education for the 21st Century. *She Ji*, 6(1), 13–49.
<https://doi.org/10.1016/j.sheji.2019.12.002>
- Perold-Bull, K., du Preez, K., & Coetzee, H. (2023). Re-storying design research: A case study in the context of postgraduate studies. *17th DEFSA Conference, Vulindlela – Making New Pathways*. www.defsa.org.za
- Redström, J. (2020). Certain Uncertainties and the Design of Design Education. *She Ji*, 6(1), 83–100.
<https://doi.org/10.1016/j.sheji.2020.02.001>
- Stappers, P. J. (2007). Doing Design as a Part of Doing Research. In R. Michel (Ed.), *Design Research Now* (pp. 81–98). Birkhäuser.

- van Zyl, H. M., & Carstens, L. (2021). Towards 4IR and African scholarship: Exploring research capacity in the widening discipline of communication design. *DEFSA DESIGN EDUCATION | AFRIKA | 4TH INDUSTRIAL REVOLUTION*, 33–44. www.defsa.org.za
- van Zyl, H. M., & Carstens, L. (2023). Communication design industry-in search of unicorns or new pathways? *17th DEFSA Conference, Vulindlela – Making New Pathways*, 71–82. www.defsa.org.za
- van Zyl, H. M. (2024). Mind the gap – industry perceptions about postgraduate studies in the discipline of design. *South African Journal of Higher Education*, 38(1). <https://doi.org/10.20853/38-1-6280>
- Vaughan, L. (2017). *Practice-based Design Research* (L. Vaughan, Ed.). Bloomsbury.