

Chapter 21:

Methodologies for research in Learning Development

I suspect this is a common query we have all seen:

Why do we have to engage with stupid philosophy to do research?

It might even be something we've felt ourselves...

Though research methodology may seem like a dreaded necessity for many Learning Developers, we should always remember that it is the unsung hero of effective research, paving the way for impactful new strategies and ground-breaking new approaches. It is also an opportunity for Learning Development to define itself by taking a distinctive approach to the production of new knowledge.

Introduction

Methodologies explain and justify the theoretical approach to research and the practical collection and analysis methods used. As each discipline takes distinctive approaches to research, it is within methodology that Learning Development research has the power to distinguish itself from the broader field of education studies. Methodology is essential in research practice. Without a robust methodological approach, there is the risk that Learning Development research will only evaluate practice, missing the opportunity to generate new knowledge and generalise it for the benefit of others. Saunders et al. (2019) liken the research process to the peeling layers of an onion, systematically working through the outer layers until reaching the middle (see Figure 21.1). This chapter will peel away these layers of the research onion from a Learning Development perspective.

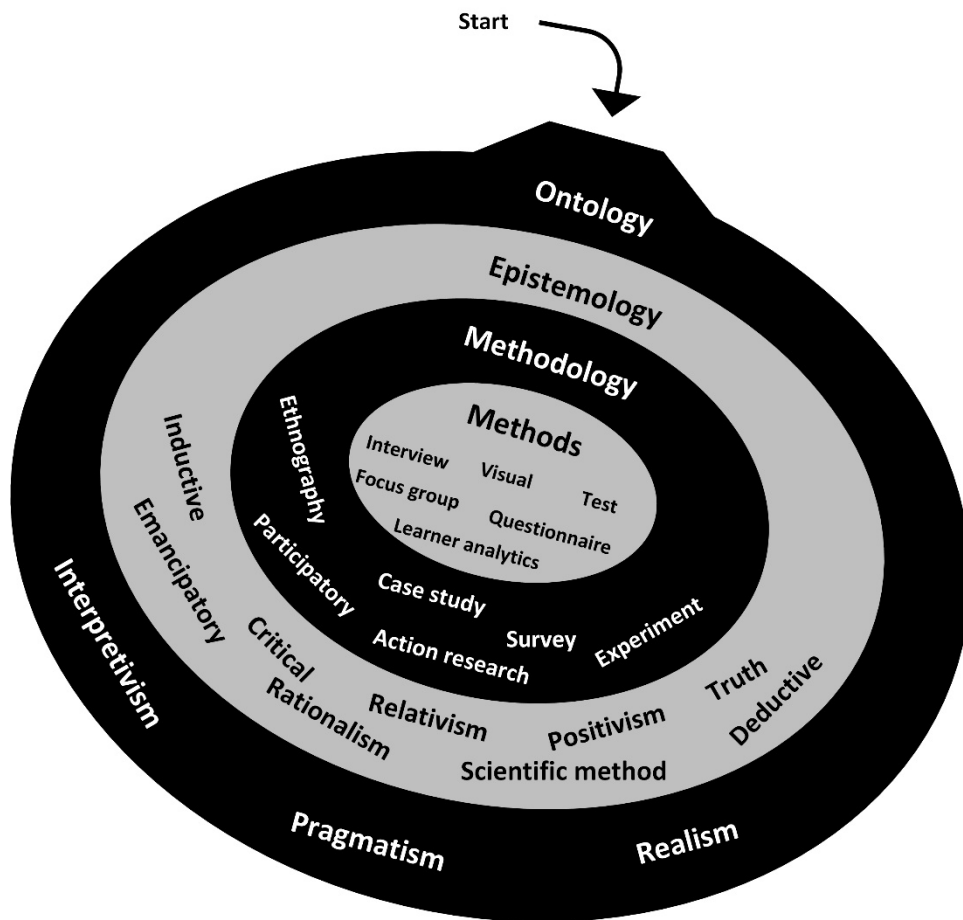


Figure 21.1: The research onion (based on: Saunders et al., 2019)

Ontology

Ontology establishes the nature of reality and what can (or cannot) be known. While there are multiple nuanced approaches to ontology (Guba et al., 2017), I think there are three useful starting points for Learning Developers: realism, pragmatism and interpretivism. Realists argue that there is an objective and definable world out there – finding the truth is possible. Their research tends to focus on quantitative (number-based) methods such as surveys, experiments and big data, often using statistics to prove differences, correlations, or to predict. Realists focus on objective and reproducible research, so it can easily be applied in similar contexts. In contrast, interpretivists recognise that the world is a cacophony of different people, perspectives and opinions. Their research embraces this, and explores thoughts, feelings and actions through the use of qualitative methods. Qualitative methods focus on using unstructured data (words, images, audio/video) and include methods like observation, interviews, focus groups and visual methods. Interpretivism has no universal

truth, but the value is placed on depth and detail. Finally, pragmatism acknowledges the importance of realism and interpretivism and borrows from both philosophies as needed for a given research project. Pragmatists tend to focus on mixed methods, using a mixture of qualitative and quantitative approaches.

It may seem that interpretivist studies done in partnership with students should be the signature research approach for Learning Development, but there are broader considerations. Interpretative approaches may better embrace the values of Learning Development and work to produce a more student-centred form of knowledge creation. However, Learning Development must also acknowledge that the hard numbers and statistics of realist research are one of the best ways to demonstrate significance and impact. For this reason, Learning Development research must be inclusive of multiple research philosophies, and we should strive to produce research within both domains.

Epistemology

Epistemology needs to be carefully considered for Learning Development research because it defines how knowledge can be created, produced or discovered (Schubotz, 2020), essentially framing how researchers know that they know. This establishes the power dynamics of research, defining who has (or does not have) control in the research process. Epistemology defines to what extent the world is objective – and can be (scientifically) understood, or it is subjective and (socially) constructed. This is not a binary choice, and there is much depth and nuance across the epistemological spectrum. As Cohen et al. (2018) suggest communities of practice influence epistemology, I argue that participatory, emancipatory and practitioner epistemologies should form the base of authentic research in Learning Development:

- *Participatory epistemologies* emphasise co-creation and co-delivery of research (Schubotz, 2020). Instead of having ‘participants’ who just take part in a study, they are framed as co-researchers and become an active part of the research process. At its fullest extent, participatory research invites co-researchers to define the scope of the project, design the method, conduct the research, support the analysis and take part in the writeup.
- *Emancipatory epistemologies* place focus on giving voice to disadvantaged, oppressed and exploited groups (Bagnall & Hodge, 2022). Such epistemological approaches have traditionally produced feminist, queer and non-white perspectives on the world,

challenging established (but biased) ways of knowing. In Learning Development research, this approach may be turned to any disadvantaged group.

- *Practitioner epistemologies*, I propose, focus on developing professional knowledge. As Learning Development emerges as a distinct profession, there is a need for authentic, practitioner-led research. Learning Developers should produce such research and may draw upon autoethnographic and reflective practices (Kinsella, 2010).

Positionality

It is useful for Learning Development research to consider positionality alongside epistemology. Positionality can be defined as “the position [researchers] adopt about a research task and its social and political context” (Holmes, 2020:1). Positionality requires researchers to be self-aware of their own background and biography – and how it can influence the research process. For example, I write as a white, male, western, gay academic, the first in his family to go to university. Such experiences shapes how I see the world – my institution, my practice, my students, and my colleagues. In research, positionality is the vehicle to account for the insights and biases the researcher bring to the research. It is also important to consider the ‘position’ of Learning Development within any given institution as this can vary considerably across the sector.

Methodological designs

The methodology is the strategy for inquiry – the process of seeking new knowledge (Guba et al., 2017). For this section, I wanted to overview approaches that aligned well with the values of Learning Development, and the ‘insider researcher’ status of most practitioners that are investigating their own practice, institution or unit.

Case studies

Case studies are the detailed examination of an individual unit (Flyvbjerg, 2011) – such a specific intervention or university. They provide great depth, and through their focus, can help identify causes to outcomes (Flyvbjerg, 2011). I argue that while a single case study cannot show how widespread a phenomenon is, the publication of multiple case studies across Learning Development will provide broader insight into the profession. Case Studies are a popular approach for Learning Development Researchers. One recent example includes McIntyre and O'Neill (2022), who share their approach to supporting student transition via a

tailored online course. Their case study focuses on one course, providing detail of their intervention, with use of a survey to demonstrate student feedback on their development.

Ethnographic approaches

Ethnography is a methodology that is often associated with Learning Development (Sizer, 2019), and involves “direct and sustained contact with human agents” (O'Reilly, 2009:3). The focus of ethnography is to help understand the everyday experience, something that is well applied to the university context. Ethnography is usually based on rich, written accounts, the application of theory and the researcher's own reflexivity (O'Reilly, 2009), with methods including observation and interview. While the sustained aspect of ethnography can make it a challenging approach for Learning Developers, there is value in considering how ethnographic studies engage with social meanings, values and structures (Madison, 2020). For this reason, ethnography is often adapted in application for Learning Development research. Sizer (2019) cites ethnography as part of the root of their ‘textography’ approach, which investigates contexts, texts and practices. Another example comes from Woods et al. (2019), who argue their User Experience (UX) research is an applied form of ethnography. Closely related to ethnography is the field of auto-ethnography, the study of the self (Hughes & Pennington, 2017). Learning Developers successfully use this to explore their practice, a core aspect of practitioner-led epistemologies. Johnson et al. (2022) demonstrate the potential for collaborative writing and analysis to form a collaborative autoethnography, which, I argue, could help further the advancement of Learning Development.

Action research

Action research is a rigorous methodology that intertwines theoretical and practical knowledge, engaging with people to draw on many ways of knowing with an end goal of positive change (Reason & Bradbury, 2008; McAteer, 2013). As such, action research can be seen as cyclic, allowing researchers to identify problems, develop and implement solutions before evaluating outcomes. If necessary, this cycle can be repeated over and over, stopping when the problem is fully resolved. Action research is a popular approach in Learning Development, as it aligns to practice – and focuses on developing improvements. A recent example includes Hancock (2019), who uses action research to introduce a flipped-classroom approach. The author notes how action research allowed them to both make and analyse change in their teaching, amalgamating research and practice.

Participatory research

While discussed as an epistemology, participatory research has methodological implications for deeply participatory research. In Learning Development, such approaches would involve participants throughout the research cycle. This would involve their direct input throughout the research cycle, including the identification of the issue to be investigated, the methods to investigate it and the analysis of data collected. As such, a participatory methodology would be driven not just by Learning Developers, but those we work with (most often students). While some examples of Learning Development research engage students (or others we interact with) in the research cycle, I believe there is much more potential to develop this. If Learning Development is to be truly emancipatory and participatory, Learning Development research should reflect this. One excellent example of this comes from Fromm et al. (2021), who reflect upon a participatory action research project involving students in two research cycles, presenting their findings in the student's words. This published article is co-written with five students, demonstrating a highly participatory, student-centred approach.

Surveys and experiments

Survey methodology focuses on the systematic gathering of information from a sample of a larger population (Joye et al., 2016), and is often associated with questionnaires. Experimental designs involve an experimental group exposed to a treatment or intervention, which is then compared to a control group not exposed to the experimental treatment or intervention (Vaus, 2006). These approaches tend to be more quantitative and rely on statistical analysis situated towards a more realist ontology of research. While this may seem problematic when considering my argument for participatory, emancipatory and practitioner-led approaches to Learning Development research, it is possible to use these methodologies if prioritising students and adhering to core Learning Development values. An example of this approach in practice comes from Loddick and Coulson's (2020) work on the impact of tutorials on student attainment. This research compares students who have attended Learning Development Tutorials (experimental group) with that of the university population (control group). This is not a true experimental design, but represents an approach that maintains the core values of Learning Development. It aims to use statistical inference to ascertain impact, but does not actively 'experiment' on students or use them as 'subjects'. The authors are clear on the

problems of this approach – the students are self-selecting (as opposed to random) and there are multiple other variables that are not controlled.

Mixed, merge and multiple methods

Mixed, merge and multiple-method designs aim to weave together qualitative and quantitative approaches to overcome the weaknesses of each design in isolation. These approaches serve as one of the most popular for Learning Development research, allowing the use of two or more research methods. *Mixed methods* explicitly use at least one quantitative and one qualitative method to either triangulate findings or provide both breadth and depth. *Merge methods* aim to fully merge epistemology and methodology, breaking away from the focus of two methods towards full integration. Finally, *multi-methods* embrace more than one method to provide a breadth of data. These do not need to be an explicit mix of qualitative and quantitative.

Research methods

To measure the diversity of research methods in Learning Development, I analysed the research article publications from the Journal of Learning Development in Higher Education (JLDHE) for 2018-2022. As you can see from Figure 21.2, a wide range of methods are used in Learning Development research, and the rest of the chapter will focus on these approaches in practice.

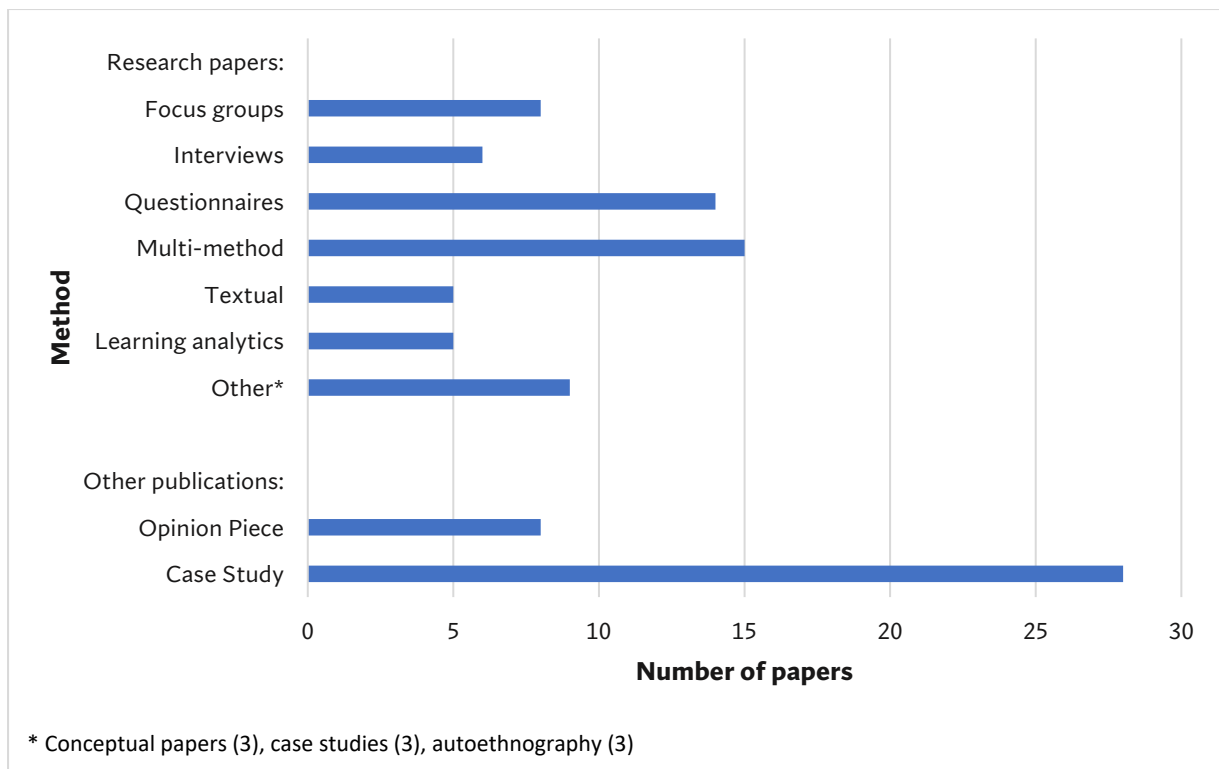


Figure 21.2: Research methods used in JLDHE research papers 2018 – 2022

Focus groups and workshops

Focus groups are based on facilitated activities (usually discussion-based) among a selected group of people to produce group – as opposed to individualised meanings (Acocella & Cataldi, 2021). Focus groups are often facilitated as a group conversation, but can involve the use of activities that use artefacts like LEGO, flipcharts and photography to develop tangible outputs (Fallin, 2020). These visual and creative techniques can often make the session more manageable to ‘capture’ for the purposes of analysis. In Learning Development, focus groups may be pitched as ‘workshops’, and could be combined with teaching – with appropriate ethical clearance and consent.

Interviews

Interviews are a diverse instrument, and are generally based on one-to-one conversations between a researcher and a participant (Billups, 2021). They allow Learning Developers to undertake an in-depth exploration of reasons, feelings and language with students or other participants. Interviews can be conversational, semi-structured or completely structured and questionnaire-like, giving researchers a choice of varying levels of flexibility. Interviews are

always discussion based but can use prompts and other objects for elicitation. Most researchers audio record their interviews and transcribe them for analysis.

Questionnaires

Questionnaires are used to gather consistent information from a (potentially) large number of participants using a series of questions (Coleman, 2019). For Learning Developers, questionnaires allow the rapid collection of research or evaluation data. Questionnaires can be administered online, via pen and paper or via oral administration, giving more flexibility over how they can be administered – without the requirement for a researcher to be present. Questionnaires can use closed (quantitative), open (qualitative) or mixed approaches to collecting data.

Multi-method

Multi-method studies were the most prevalent approach, most often a combination of interviews with either questionnaires or focus groups, with an aim of triangulating data.

Textual

Textual-based approaches are a broad and diverse range of methods (Ledolter & VanderVelde, 2022). Approaches can involve the analysis of language or content of any form of document or written work. Texts for analysis can include emails, textbooks, web content or even student summative assignments and VLE comments. Textual-based approaches can allow Learning Developers to engage with existing texts (ethics permitting) for new analytical approaches. There is much potential for Learning Developers to use this approach to engage with student work, helping to identify areas for future Learning Development focus. Textual approaches also afford the opportunity to engage with linguistic analysis, allowing a deep analysis of student writing to identify functions of grammar, language and structure.

Learning analytics

Learning analytics allow the use of existing University data to provide new insights. This can be information from student records that covers demographics and student assessment details, or can cover detailed interaction reports from VLEs. There are interesting ethical questions around the application of big data and learning analytics, but there is also a call for universities to better use the data they have to support students. Learning analytics tend to

be overly positive and insensitive to cultural factors (Rogers et al., 2016), therefore caution is needed if Learning Development is to enter this space.

Reflective and reflexive methods

Reflective and reflexive approaches to data collection usually sit within autoethnography, the study of the self (Hughes & Pennington, 2017). For Learning Developers, these approaches afford a practitioner-centred approach to data collection, using the thoughts, feelings and reflections of the practitioners to produce new data. There are structured approaches to this – such as the use of a calendar or diary to record thoughts over time (Muncey, 2010).

Alternatively, reflective frameworks like Brookfield's (2017) Four Lenses to afford a structured approach to reflection. This approach to research requires strong links to theory and practice, and there is also opportunity to triangulate reflective data with that of other instruments (such as interviews or focus groups).

Conclusion

As Learning Development continues to write itself into existence, research is one of the significant opportunities to further establish what makes Learning Development distinctive. This chapter demonstrated how participatory, emancipatory, and practitioner-led approaches can inform an authentic Learning Development ontology, epistemology and theory in the application of research methods.

I encourage readers to engage with the JLDHE for further examples of methodologies in practice. As you will see in Chapter 22, there are many routes into publishing in Learning Development, and you will find reading JLDHE a useful way to develop your own research style within the profession.

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