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Author

Noble, Christy, Ajjawi, Rola, Billett, Stephen, Goldszmidt, Mark

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HOW TO

How to Approach Qualitative Observational Research in Workplace Learning

Christy Noble[1] | Rola Ajjawi[2] | Stephen Billett[3] | Mark Goldszmidt[4]

[1]Academy for Medical Education, Medical School, The University of Queensland, Herston, Queensland, Australia | [2]Department of Surgery and CHES, University of British Columbia, Vancouver, British Columbia, Canada | [3]School of Education and Professional Studies, Griffith University, Brisbane, Queensland, Australia | [4]Centre for Education Research and Innovation and Division of General Internal Medicine, Department of Medicine, Schulich School of Medicine & Dentistry, London, Ontario, Canada

Correspondence: Christy Noble (c.noble2@uq.edu.au)

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ABSTRACT

Background: Learning in clinical settings occurs through engagement in everyday activities and interactions. Yet, clinical settings are complex, dynamic environments and data collection methods such as interviews and focus groups, although valuable, alone may not capture the complexities of these settings. Qualitative observational research offers an approach to understanding these complexities and enhancing learning in clinical settings.

Objective: The aim of this paper is to support readers in undertaking qualitative observational research in workplace learning.

Methods: We provide an overview of qualitative observational research, emphasising its relevance to investigating workplace learning. We delineate four key components to consider: the phenomenon of interest, roles of researchers and participants, ethical considerations and data collection approaches. An illustrative example from health professions education research is presented to demonstrate the application and outcomes of observational research.

Results: Qualitative observational research allows for a nuanced understanding of real-world clinical activities and interactions, capturing elements of learning that are often missed by other methods. It offers a rich evidentiary base for both clinicians and researchers to appraise and improve practice. The example study illustrates how observational research can identify systemic issues affecting both learning and clinical practice.

Conclusion: Qualitative observational research offers an important approach to understanding the complexities of clinical practice and workplace learning. We have shared some key considerations for the design and conduct of qualitative observational research in workplace learning.

1 | Introduction

Learning in clinical settings occurs through engagement in everyday workplace *activities* and *interactions* [1, 2]. It is the primary means by which clinicians develop their clinical capabilities and form their professional identities. Yet learning in the workplace is not new with Dornan suggesting it is as old as medicine itself [2]. If we want to enhance workplace learning, then we need to understand how everyday clinical *activities* and *interactions* influence learning and, ultimately, clinician identity. This is where qualitative observational research comes in, as it can assist us to better understand the nuances of these *activities* and *interactions* [3].

Qualitative observational research offers insights into what actually happens in practice (rather than what is retrospectively

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recalled as intended or idealised) and the social and material relations comprising that practice [4]. This includes the clinicians' tacit knowledge, which can be difficult to recall and articulate [5] and, therefore, difficult to capture through recall alone (e.g., interviews and surveys). Clinical workplaces are highly complex physical and social environments in which clinicians interact with others and artefacts (e.g., electronic health records, stethoscopes, policies). Observations enable clinicians and researchers, especially if they view and listen to recordings of practice, to "see, hear and sense the complexity of practice" [6, p. 909].

The aim of this paper is to enable readers to achieve greater understanding about the use of qualitative observational research in workplace settings and for clinicians to consider launching their own observational investigations. Our intention is to help you to navigate through the complexities of observational research when investigating workplace learning. Given our expertise, we only focus on observational research within qualitative approaches in this paper. Accordingly, we begin by presenting an overview of observational research and key considerations in its conduct, and then we illustrate how it can be used to explore and improve workplace learning in clinical settings.

2 | Observational ResearchA Brief Overview

This *how to* article will present some key considerations for how to conduct qualitative observational research in workplace learning. For further details, the reader is advised to consult the methodological references shared in Box 1. Observational research procedures focus on collecting first-hand accounts of activities, setting them apart from interviews that often capture what people say they do or think rather than what they *actually* do. Observational research favours systematic approaches that go beyond day-to-day *noticings* (i.e., those phenomena of which we are consciously aware) [7]. This means that the observations are more than just casual glimpses; rather, they are part of a structured and organised study aimed at understanding specific phenomena, including aspects of which participants may not be consciously aware [7].

Observational research can be conducted in different ways; however, for this paper, we highlight relevant aspects to investigating workplace learning. (See Box 2 for examples of health professions education [HPE] observational research studies exploring workplace learning [6, 8, 9].) Here, we highlight four fundamental components to consider when planning and conducting observational research:

1. Phenomenon of interest;
2. Researcher and participant roles;
3. Ethical conduct of observational research; and
4. Approach to data collection [7, 10, 11].

2.1 | Phenomenon of Interest

In observational research, it is important to first identify the specific subject or phenomenon to be studied, as this choice dictates both the researchers' roles and the data collection procedures [12]. As noted above, workplace learning occurs when learners engage with the *activities* and *interactions* in the workplace [1, 2]. So, the phenomenon of interest may manifest at specific times or within certain settings (e.g., morning handovers), influencing the focus and timing of observations. In the context of workplace learning, observations will generally target *activities*, such as the tasks being performed (e.g., ward rounds), and *interactions*, such as the collaborations and guidance offered between colleagues (e.g., pharmacist guiding an intern prescribing). Additionally, attention may be given to the role of materials (e.g., monitoring equipment). For example, in a study by Sheehan et al. [13], materials such as physical spaces and equipment were all found to influence learning. The positioning of people within a physical space might also attune us to power relations and opportunities for involvement in the practice, for example, whether a student is on the periphery of a bedside teaching encounter or closer to the patient [14]. Moreover, by identifying these influences, they were able to identify potential strategies for using these insights to improve learning.

BOX 1 | Useful methodological references.

Ajjawi R, Bearman M, MacLeod A. Attuning to materiality: sociomaterial research in health professions education. In Cleland J, Durning SJ. (Eds.) Researching Medical Education (2nd Edition) 2022:219–228. (Chapter 20)
This chapter offers insight into sociomaterial theories that could inform the design and conduct of observational research. It offers grounding in how to attune to materiality in observational research. It provides additional examples of ethnographic observational research.

Ajjawi R, Hilder J, Noble C, et al. Using video-reflexive ethnography to understand complexity and change practice. *Medical Education* 2020;54(908–914) doi: 10.1111/medu.14156
This paper introduces video-reflexive ethnography (VRE) within HPE, a form of observational research, as a collaborative method that not only captures in situ practices but also empowers clinicians to reflect on and enhance their educational practices through video-based analysis and shared reflexive sessions.

Kitto S, Alexanian J, Goldman J. Attuning to the social world: ethnography in health professions education research. Researching Medical Education 2022:127–137.
This chapter provides a detailed exploration of different ethnographic approaches and how they uncover the complex social and cultural dynamics of educational practices in health professions.

Tai J, Fischer J, Noble C. Observational studies in health professional education research. *Focus on Health Professional Education: A Multi-disciplinary Journal* 2021;22(1):94–111.
This methodological paper provides an overview of observational studies in HPE research with a focus on qualitative stances and offers practical insights for those new to observation research.

2.2 | Researcher and Participant Roles

Once the phenomenon of interest is identified, defining both the researchers' and participants' (in our case, clinicians) roles can

BOX 2 | Examples of health professions education observational research.

Below are some examples of how observational research methods can be used in HPE research to explore learning in clinical settings:

1. **Uncovering Learning Contexts**: Sheehan's study utilised observational methods to identify where significant learning activities and interactions take place within the clinical environment, highlighting the importance of context in medical education (Sheehan, D., Jowsey, T., Parwaiz, M., Birch, M., Seaton, P., Shaw, S., Duggan, A., & Wilkinson, T. (2017). Clinical learning environments: place, artefacts and rhythm. *Medical Education*, *51*(10), 1049–1060. https://doi.org/10.1111/medu.13390).
2. **Informal Learning Processes**: Varpio et al. employed observational techniques to delve into the informal learning processes among healthcare professionals. Their work sheds light on the intra- and interprofessional learning that occurs outside formal education settings (Varpio, L., Bidlake, E., Casimiro, L., Hall, P., Kuziemsky, C., Brajtman, S., & Humphrey-Murto, S. (2014). Resident experiences of informal education: how often, from whom, about what and how. *Medical Education*, *48*(12), 1220–1234. https://doi.org/10.1111/medu.12549).
3. **Learner and Teacher Identity**: Cantillon's research illustrates the use of observation to explore the complex relationship between learner and teacher identities within the workplace learning contexts of different specialties, emphasising the role of identity in educational interactions (Cantillon, P., De Grave, W., & Dornan, T. (2022). The social construction of teacher and learner identities in medicine and surgery. *Medical Education*, *56*(6), 614–624. https://doi.org/10.1111/medu.14727).
4. **Negotiation of Learning Activities**: Ajjawi's work exemplifies how observational research can be used to understand how learners negotiate learning activities, such as bedside teaching, and the dynamics of such interactions (Ajjawi, R., Rees, C., & Monrouxe, L. V. (2015). Learning clinical skills during bedside teaching encounters in general practice: A video-observational study with insights from activity theory. *Journal of Workplace Learning*, *27*(4), 298–314.).

progress [11]. The researchers' roles may differ depending on their level of involvement in the setting under study. They may either passively observe activities without interacting with the participants (e.g., adopting a nonparticipant observer role) or take an active role, engaging with participants and activities. Similarly, participants can also play different roles. Although participation often means simply carrying out their normal activities, methods like Video Reflexive Ethnography (VRE) allow clinicians to become co-researchers [13]. In VRE, participants can be given the autonomy to record activities and guide subsequent discussions of what has been observed. Regardless of role, and from a constructivist stance, the researcher's presence always influences (and is influenced by) what is being observed; this is where the role of researcher reflexivity becomes important [15].

2.3 | Ethical Conduct of Observational Research

Observational research, as with all research, needs to be conducted in an ethical manner. Beyond the usual ethical considerations, a unique consideration for observational research is ensuring ongoing and inclusive participant consent. To achieve this, researchers need to engage in an adaptive consent process to account for the possibility of encountering large numbers of participants in observational settings [16]. The following approaches illustrate some ways researchers can ensure participants' consent remains informed. Firstly, all possible participants could be sent an initial consent form to account for the range of circumstances related to the study while outlining that they have the option to withdraw at any time. Secondly, when conducting the observations, the researcher engages in continuous consent which is a dynamic process of repeatedly checking-in with the participants to determine their comfort level and readiness to be watched and/or recorded [16]. There also needs to be plans in place for consenting or deleting data from those who happen to be captured in a video or audio recording accidently but who are not primary participants. To navigate this process, an ethics advisor should be consulted early. Local guidelines should also be consulted. For example, the National Statement on the Ethical Conduct of Research [17] published by the National Health and Medical Research Council (NHMRC) provides detailed principles for Australia. In Canada, guidance is provided by the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans [18].

2.4 | Approach to Data Collection

Data collection procedures in qualitative observational research can vary significantly. Although the act of observing is a common thread across all observational methods, how observations are captured and supplemented differs [11, 12]. Researchers often keep field notes to describe what they have observed, their affective responses, and spaces and objects of practice in order to develop interpretations from their observations. Field notes are essential for making sense of the observed phenomena in subsequent analytical procedures. These notes may be written in various formats—structured or unstructured—and are often shaped by the specific subject or phenomenon under study. In addition to field notes, data can also be collected and represented through audio or video recordings, the collection of artefacts (e.g., a teaching handout), photographs, drawings (e.g., sketches of spaces and locations of objects and people) or concept maps. There is also the possibility of capturing participants' (e.g., clinicians) interpretations and observations, which can be particularly valuable when the goal is to understand what is being learned in the observed activities; brief field interviews can be particularly helpful in this regard.

3 | Investigating Workplace Learning Using Observational Research: An Example

To further illustrate how these components are helpful, an example from one of the author's (MG) research [19] will be used

to demonstrate how observations can be used to understand and enhance workplace learning.

The *phenomenon of interest* in MG's research was how healthcare professionals work together effectively in clinical settings and specifically on an internal medicine teaching ward. This *phenomenon* was more than what healthcare professionals do (i.e., their activities and interactions) and included how organisational structures and policies shape those actions and, by extension, the formation of their professional identities.

In terms of *researcher and participant roles*, MG and his team adopted nonparticipant observer roles by following different members of the multidisciplinary team (i.e., participants) as they worked across their clinical day. Using this method of observation, the research team was able to get insider insights into the healthcare professionals' daily activities and interactions that revealed real actions and outcomes related to patient care.

In terms of *ethical conduct*, all potential participants were sent an announcement via email, which included a copy of the study description and consent form. The supervising team leader was then approached first to obtain their consent and permission to observe their teams. Time was set aside at the beginning of interdisciplinary rounds and morning team rounds to allow the observer to approach the team independently of the supervising team leader. If an individual did not want to be part of the study, then interactions between them and others were ignored, or if those interactions were pivotal, that team was not observed. The observer also carried additional consent forms with them as they followed around groups or individual team members and, as necessary, would offer to consent new individuals with whom they interacted.

The research team took a focused *approach to data collection*, concentrating on how health professionals collaborate in caring for patients. The analysis of data collection showed that health professionals were primarily focused on discharging patients from hospital. The focus appeared to stem from structural challenges, including a shortage of hospital beds and an overcrowded emergency department. Hospital rules that emphasised specific discharge times, along with various multidisciplinary rounds to discuss discharges, further intensified this focus.

The unanticipated finding from those observations was that most collaboration activities focused on discharging patients. Perhaps more concerning was the way it appeared to be shaping clinician identity. For instance, a "successful" day was no longer defined by *great patient care*, but by *the number of patients who were sent home*. As a consequence of this study, much time has been spent developing improved ways for managing patient flow within the system without making discharge the focus of clinical and collaborative work.

These kinds of outcomes can have important effects on enhancing workplace learning. Identifying such tendencies and their origins in the system can help educators create programmes and policies to facilitate learning through clinical practice that aligns more closely with professional standards and goals that put patients first.

BOX 3 | Example of insights gained about learner behaviours in clinical practice settings [20].

This study led by one of our authors (MG) focused on gaining a deeper understanding of how junior trainees (senior medical students and first year medical residents) approach the everyday tasks of patient follow-up and clinical documentation [20]. The study occurred over several months and purposefully selected a range of trainees to follow at different times of the year in the training programme. From it, two very important insights were gained about enhancing workplace learning. The first relates to direct observation. Although there are numerous papers and assessment procedures asking supervising physicians to directly observe their trainees, none specifically help supervisors to realise that those observations should involve observing, not just at the bedside but also the processes used to prepare going to the bedside. In this study, the authors found that most learnt how to prepare largely through trial and error and that many clinicians had developed suboptimal approaches and even by the end of their clinical rotation were not sufficiently strategic. The second insight relates to the unintentional messages supervisors and programmes may convey about being a strong clinician and its impact on the practices of junior trainees. Many of the trainees observed, they approached their daily activities with the intention of proving that they could be independent. At times, this could lead to their providing patient care without their senior residents or supervising physicians being aware of their choices. The most effective trainees, however, developed strategies for thinking independently, but acting collaboratively. Sharing the approaches developed by these highly effective trainee can potentially enhance both workplace safety and learning.

This study demonstrates how observational research can be used to uncover nuanced aspects of workplace systems and behaviours that are not consciously enacted. Insights such as these may not have been visible had the study relied on interviews and focus groups. MG's research provides an illustration of the value and depth of observational research, that, in turn can add to understandings of learning in healthcare settings and based on these understandings, design strategies and policies to align with the evolving needs of healthcare professionals. It also demonstrates the importance of focus; without a clear focus, observational data can become overwhelming. As shown in Box 3, doing observational research in the exact same setting can reveal very different insights. In this case, insights on learner behaviours in the workplace and how to better support them.

4 | Conclusion

Qualitative observational research can be a valuable tool for illuminating and elaborating the complexities of clinical practice and workplace learning. It allows for a rich understanding of workplace practices that methods such as interview and focus group might fail to capture. To ensure its full potential is realised, we have outlined four key components including the following: (1) the phenomena of interest; (2) researcher role; (3)

ethical considerations; (4) data collection techniques. Through examples, we have provided further guidance on how to enact qualitative observational research.

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