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Assignment 1

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Background Research to Premier Health High Reliability Project



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Abstract

'It was still snowing as [Pooh Bear] stumped over the white forest track, and he expected to find Piglet warming his toes in front of the fire, but to his surprise he found that the door was open, and the more he looked inside the more Piglet wasn't there' (Milne [1928] 1958, p. 163)

The capture of personal reflection on a group qualitative research (QualR) doctorate project, a High Reliability (HR) gap-analysis in a healthcare system is contained within this report. The author reveals the process of critical self-reflection is as important as the active stage of doing, providing means for continuously becoming a better qualitative researcher (Watt, 2007). Knowing instinctively what incidents to reflect upon is not straightforward (Bolton, 2014). Embarking on the process as a novice researcher-practitioner it was not clear cut what would be focused upon. To assist in a systematic approach to critically appraise contribution to a QualR project, the author is informed by published QualR evaluation frameworks which signpost key criteria and standards. Whilst acknowledging no framework can be a definitive guide, the author learns the more one looks, the more that is unveiled that was not noticed before (Robbins, 2003).

Practical outputs of this critical reflection include the identification of different QualR evaluation framework to help make sense of learning (Heyler, 2015) experienced in a world research simulation. In the author's mind the reflection process has increased awareness for creating an evidence-based documented trail which demonstrates steps have been undertaken to conduct rigorous research (**quality**), decisions made have been made on sufficient ground and with clear argumentation (**accountability**), and underpins outputs valued by the people they seek to assist, representing good **value** for the time and resources invested (Skovdal et al., 2015). The importance of genuine researcher collaboration to enhance study coherence and methodological congruence in group research is highlighted, as is the implications on research integrity of researcher(s) positionality statements(s).

Furthermore whilst the importance of curiosity as a trait is highlighted i.e. an open-mined approach to discover new methodologies or ways, requiring a voracity for reading and observing (Almy, 2015), awareness that can mean a propensity to fall down rabbit-holes if not purposefully kept in check via reflection and feedback. Finally the impact of the approach adopted by the author to the selection and synthesis of literature reviewed on the study's rigour and credibility is considered.

Whilst 'reflexivity' not directly discussed, the author believes that this instance of reflection-on-action will lay more solid foundations for reflection-in action in the future, and will ultimately lead to reflexivity: "*a more immediate and dynamic process which involves continuing self-awareness*" (Finlay and Gough, 2003, p.ix).

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Acronyms

BGDoc: Background Document

CAS: Complex Adaptive System

DA: Document Analysis

EV: Evidence

FG: Focus Groups

HR: High Reliability

PDoc: Proposal Document

QualR: Qualitative Research

RIL: Research-Informed-Literature

ST: Systems Thinking

SSI: Semi-Structured Interviews

SSM: Soft Systems Methodology

1. INTRODUCTION

1.1 Terms of Reference

This report critiques the author's personal contribution to a group qualitative research (QualR) doctorate project, a High Reliability (HR) gap-analysis in a healthcare system. "*Critical appraisal involves a complete examination of a study to judge its strengths, weakness, credibility, meaning and significance for practice*" (Grove et al., 2014, p365). As a doctoral candidate I aspire to mastery of skills and methods of QualR (QAA, 2011); the ability to explain, justify and generate reliable and valid research outputs (Golding, 2014); achieving productive impact within a professional context. Key standards as a practitioner-researcher in training (Drake & Health, 2011) include **quality, accountability and impact** (Skovdal et al., 2015). Word-count maxim restricts a comprehensive discussion of all challenges faced/learning achieved, but a selection surfaces assumptions/beliefs held as well as missed opportunities for improved rigour and robustness, including justification of selection and reporting of research paradigm/methodological approaches (Patton, 2015). Five key learning points supported by evidence housed in the appendix follow.

2. KEY LEARNING POINTS ACQUIRED FROM A REFLECTION EXERCISE

2.1 Claim 1: Employ of QualR Appraisal criteria can support systematic reflection

Critical reflection is "*a way of learning from and reworking experience... with the express aim of improving professional practice*" (Fook, 2011, p55). During writing of the Background Document (BGDoc) I consulted a QualR checklist, the Critical Appraisal Skills Programme Checklist (CASP, 2013)(listed in BGDoc Bibliography, 2018). Whilst "*qualitative researchers do not have propensity to follow pre-defined recipe-style guidelines...*[given] the

diversity and complexity of their research participants and the context” (Northcote, 2013, p103), a checklist can “*promote complete and transparent reporting [and] indirectly improve rigour, comprehensiveness and credibility of studies*” (Tong & Craig, 2007, p350). This influenced the starting point for reflection-on-action (Schön, 1983), triggering a self-analysis of module participation integrating components of the CASP tool, extending out to communication practices/exchanges [EV01]. This process facilitated a critical and objective perspective on contribution [EV01&2], disciplining a challenge to established patterns of thinking (Jarvis et al. 2003), stepping back from practice, investing time in contemplation, and exploration of alternative perspectives/approaches (QAA, 2015).

Subsequent research on qualitative appraisal frameworks/criteria reveals selection should be exercised with caution (Newton et al., 2011). Although user-friendly, the CASP tool is arguably not great in evaluating intrinsic methodological **quality**, nor interpretative and theoretical validity; crucial for the “*establishment of a methodologically sound qualitative study*” (Hannes et al., 2010, p1741). Whilst acknowledging no framework can be a definitive guide, that QualR cannot be reduced to technical procedures [“*the tail wagging the dog*” (Barbour, 2001, p.1150)], a google scholar search for “*qualitative research*” *appraisal frameworks*’ to enrich understanding of their purpose/design was triggered. Of seven appraisal research papers analysed, three appealed to a pragmatic perspective, offering different emphases/support. Burns (1989) standards gave simplicity of format, headlining descriptive vividness; methodologic rigor; analytical preciseness; theoretical connectedness; and heuristic relevance. Long & Godfrey’s (2004) QualR evaluative template highlights cultural and organizational context. The UK Cabinet Office’s Quality Framework (Spencer et al., 2003) (figure 1) allows for assessment of both qualitative inquiry *outputs*, and *proposals*.

1. How credible are the findings?
2. Has knowledge/understanding been extended by the research?
3. How well does the evaluation address its original aims and purposes?
4. Scope for drawing wider influences—how well is this explained?
5. How clear is the basis of the evaluative appraisal?
6. How defensible is the research design?
7. How well defended is the sample design/target selection of cases/documents?
8. Sample composition/case inclusion—how well is the eventual coverage described?
9. How well was the data collection carried out?
10. How well has the approach to, and formulation of, the analysis been conveyed?
11. Contexts of data sources—how well are they retained and portrayed?
12. How well has diversity of perspective and content been explored?
13. How well has detail, depth and complexity (richness?) of the data been conveyed?
14. How clear are the links between data, interpretation and conclusions—i.e. how well can the route to any conclusions be seen?
15. How clear and coherent is the reporting?
16. How clear are the assumptions/theoretical perspectives/values that have shaped the form and output of the evaluation?
17. What evidence is there of attention to ethical issues?
18. How adequately has the research process been documented?

Figure 1: Synopsis of Cabinet Office's Quality Framework (Extracted: Bryman, 2016, p319)

A retrospective view of the BGD doc, through the combined lens of the aforementioned appraisal frameworks reveals an overly descriptive and inadequately critically analysed literature body, and less than robust method justification and procedural detail within its methodology. Despite some qualities, including RIL explanations of what, how and why qualitative methods and specifically a systems thinking (ST) approach would be appropriate to the client's context, under a more critical eye the data collection procedures and analysis could be found defective (Thrower, 2012) e.g. under the scrutiny of a thesis panel/journal editor. These shortcomings could potentially fail client[s] in generating purposeful **impact**, including casting doubt over its repeatability. However use of an appraisal tool could support improved focus upon the credibility and **quality** goals of the live-research design, directing researchers to take **accountability** for completeness of approaches adopted e.g. a reminder to ensure all ethical considerations are addressed e.g. ensuring the terms and conditions of knowledge production to research participants (McManus, 2017).

2.2 Claim 2: Minimal collaboration potentially reduced the study's coherence

According to NASAM (2017) collaborative research is increasing, requiring researchers to focus some attention on coordination/interaction, which although absorbs researcher time/effort, has been found to produce more highly cited work. As BGDdoc project-lead the author was focused on delivering a Complex-Adaptive-System (CAS)-contextualised, coherent and cogent research document by deadline, aspiring to scholarly standards. Team clarity was deemed critical, and incentivised a written synopsis of the project-to-date including task projections, and a BGDdoc Work-In-Progress document, with team updates via email/dropbox inviting confirmation, feedback and challenge [EV02]. In these, emphasis was placed on commitment to use of RIL (relevant/credible/scholarly) to inform report content claims: from clarity of justification for utilisation of the K-Core tool underpinned by a ST methodology as a best-fit to client's needs, to the provision and justification of clear method detail. The driver being the BGDdoc would practically inform researcher activity as well as fit scholarly standards. The author believed one synopsis document housing what was known, facts confirmed, decisions to date, and outstanding work would reduce ambiguity and confusion, support effective collaboration, as well the development of a logical and consistent 'voice' within the BGDdoc, overall facilitating research study coherence (Chenail et al, 2011). This was supplemented by bi-nightly/nightly updates at peaks of activity on phone/skype/direct messaging/email with fellow group member[s], inviting ideas-exchange, problem-sharing and challenges [EV03].

On reflection, personal prioritisation of alignment and logical unity across the BGDdoc sections distracted from effort to encourage a true collaborative writing approach, which may have improved research quality (DAWN, 2009). Accepting translating group research activity to a

research report is complex, particularly tracking assumptions made by all contributors, and how issues were handled, tools such as research diary entries, capturing detail as outlined by Fox et al. (2007)(figure 2) potentially would have encouraged productive reflection-in-action.

- Running descriptions: specific concrete descriptions of events, conversations
- Recall of forgotten material: issues, problems and thoughts that are recalled out of context
- Interpretative notes: notes offering an analysis of a situation and the impact of that analysis on the perception of the research
- Personal impressions and feelings: subjective reactions to issues arising from the research
- Reminders to look for additional information or follow up a lead

Figure 2: Potential components of a research diary (Fox et al. 2007, p149)

According to Richards & Morse (2013, p.1) in QualR “*the strength of qualitative inquiry is in the integration of the research question, the data, and data analysis*”. There is evidence of explanation and justification of why ST and the proposed use of the K-Core model would deliver benefit to the client; that the data generated through QualR tools would allow for data collection that would be fully represented across the system and owned by the system for maximum impact, with a higher rate of success than more traditional reductionist approaches. Therefore there is a base level of coherence across the BGDoc i.e. a thread is pulled throughout the majority of the paper, championing QualR, ST and a pragmatic approach in facilitating transformational change in a healthcare/CAS context. Upon close analysis there is imbalance of argumentation of why certain approaches e.g. an ethnographical approach, were dismissed, introducing selectivity bias. Improved research collaboration may have mitigated this issue. Also despite evidence of communications to support congruence of approach [EV03] it’s questionable whether the methodological thread was pulled as tight when other contributor work was integrated into the document e.g. the data analysis design. Building on claim 1, rather than be blind-sighted by a rigid adherence of a de-contextualised application of universal methodological rules (Mason, 2018), it’s suggested **quality**, which encompasses coherence,

must also involve self-critical or even an fallibilistic approach involving reflexive practice (Seale, 1999) for all researchers involved.

Ultimately a more detailed reflective feed on all contributors decision-making, would have encouraged more discussion/challenge on why methods were selected/discounted instead of contributions being adapted or spliced together at documentation stage.

2.3 Claim 3: Lack of awareness of positionality can reduce research integrity

Research integrity can be defined as “*active adherence to the ethical principles and professional standards*”, essential for responsible research (Korenman, 2006 [online]) so that researcher decisions are made objectively rather than by preconceived notions (ibid.) Despite general awareness of the concept of researcher positionality (Denzin, 1986), specifically ‘insider-outsider, and the space between’ (Dwyer and Buckle, 2009) the author did not fully explore the impact of their own/team’s bias and preconceptions, or the influence/impact of experience or insight into the world in which the research was being undertaken (Drake & Heath, 2010). Ravitch & Riggan (2017, p80) note the significance of the challenge of designing and conducting research, “*specifically being able to critically examine and make transparent the goals, commitments, frames of references, guiding concepts and theories that influence your work*”. Values, guiding beliefs and assumptions underlying the goals as collaborating individuals was not explicitly discussed. Whilst there is reporting of a NextGen positionality e.g. “*NextGen adopts a [ST]approach to research design*” (BGDoc, p5)” and a *pragmatist philosophy* (ibid, p19) a ‘clear positionality statement’ (Bourke, 2014) is missing. The consideration of one’s views and how they differed from others, being willing to look at the world through the mental filters of others was not evident, neither was there a ‘clear

positionality statement' included [EV01]. EV02 suggests a 'position' adopted by the document-lead [author] potentially influences the study's final design, *'from the way the question/problem is initially constructed, designed and conducted to how others are invited to participate, the way knowledge is constructed and acted upon, and ways in which outcomes are disseminated/published'* (Coghlan & Brydon-Miller, 2014, p627). Whilst there is conceptualisation of why the study was instigated, its goals, and for who, a more thorough consideration of the aspirations for the study's accomplishments, how it would be evaluated, a broad consideration of intended audiences, and how it may contribute to its wider field (Ratvich & Riggan, 2016) was not explored. The impact of this was potentially a forced conjoined NextGen affiliation to key methodological decisions [EV02], increasing bias and reducing the validity of data and thus findings generated.

2.4 Claim 4: The researcher curiosity trait is dual-edged



Image 1: Curiosity can lead to rabbit-holes (Image Source: Getty Images, 2018)

A fundamental attribute of the qualitative researcher is curiosity, as one seeks to discover something about another person/phenomenon (Rossman & Rallis, 2012). *"If you're not curious, you're probably not a real scientist"* says Pennock (2016 [online]). EV04 is an example of being curious and open-minded, willing to pursue new lines of inquiry (Hare, 2006;

Zakhleniuk, 2017). The author perceives drive, energy and commitment to engage in deep research, to brainstorm ideas, and share finding with colleagues is added-value, but recognises being actively curious, can be like an itch that must be scratched, and with a distractive downside which must be kept in check. The example tendered in **EV04** resulted in being hauled out of a “rabbit-hole” i.e. via expert review/tutor feedback, which in this instance diverted further time spent on unfruitful enquiry.

‘Falling down a rabbit-hole’ refers “*to a situation that is strange, confusing, or illogical, and often hard to escape from*” (MacMillan Dictionary, 2018 [online]) or where one gets “*interested in something to the point of distraction—usually by accident, and to a degree that the subject in question might not seem to merit*” (Schulz, 2015 [online]). The reflection point is that researchers should be **accountable** for channelling curiosity, maintaining it in productive ways, so it does not become distracting/inefficient, leading oneself or others [collaborative research context] astray; whether it be more literature than is necessary is read, information–overload, time-wasting, or plainly going off-tangent from goals. Checks on scope, and routine sense-checking with project sponsor/research supervisor or the collaboration team is invaluable. Yet, there is still learning to be gained “*from the inward observations of the fall and also turned back outwards as reflexive inquiry shaped by events and processes*” (Allbon, 2012, p62).

2.5 Claim 5: Non-systematic Literature Review approach can impact study rigour and credibility

EV05 hones in on the author’s justification to not employ a rigid systematic LR approach typically based on the principles of rigour, transparency and replicability (Mallet et al, 2016)

and opt for the Rapid LR (RLR) due to the perceived limitations of time/manpower and that systematic reviews and meta-analyses are time-consuming, with unpredictable uncertainty in the resources required to complete (Borah et al., 2016). This would later inform a poorer method design, and not allow for a showcasing of “*analysis, clarity of thought, synthesis, and development of argument*” (UoL, 2018 [online]). Despite awareness the LR findings would critically inform the contextualised adaptation of the K-Core tool, and the interview and focus group question-sets, the outcome was that they became wholly dependent upon one paper [Sullivan et al. (2016)]. The RLR reduced rigour weakens the strength of “*foundation for the study’s significance and relationship to practice*” (Boswell & Cannon, 2014, p408). Whilst the RLR provided an informed background context, to promote shared understanding to stakeholders, it risks becoming wasteful and unethical, replicating questions, methods, and populations without fuller acknowledgment/awareness of existing knowledge/studies (Clark & Sousa, 2016). A more rigorous searches for past literature using a systematic approach (with more time/improved time-management) should possibly have been committed to, and was likely to return higher quality results than the narrow feed on safety culture [rather than a more comprehensive coverage of behaviours, processes and structure as promised in the preceding PDoc]. A more thorough systematic approach, as adopted by Enya et al. (2018) would have produced a more through and critical coverage of knowledge to date to apply or build upon e.g. HRO definition, conceptualisation, theoretical frameworks employed, HRO measures, and industrial context of HRO, allowing for more productive consideration of how the current HRO research can build on rather than replicate in order to support HR development in a healthcare context.

3. SUMMARY REFLECTIONS

Missed opportunities highlighted in **EV01** have impacted the overall rigour and credibility of the BGDoc generated for the client, as determined by gaps in systematic analysis (e.g. of RIL synthesis), fuller justification of methods adopted and resultant **impact** on research outcomes; with implications for the client and my own researcher mastery. However the portfolio of evidence [**EV01-05**] as expressed in the report showcases some quality of contribution (researcher curiosity, selection of credible sources, growing knowledge and understanding of concepts that are justified as appropriate to the study's context [healthcare/CAS], some evaluation and synthesis, argument and judgement, and examples of individual and collaborative working). It is only through hindsight, in-depth reflection-of-action scrutiny of the process adopted through use of QualR appraisal frameworks, that there is cognisance of gaps in procedural and documentation expectations, of what would be differently and why (i.e. implications of different approach).

This reflective task has exposed layers of learning: building on new knowledge and understanding of QualR, and a deeper awareness of how and why certain steps and criteria are significant, and encouraged consideration of resultant impact on research outcomes and associated stakeholders. It has also solidified the importance of the learning processes of “action learning” in itself [facilitated by the simulated live projects] to support achievement of wider professional doctorate learning goals (Bourner & Simpson, 2014). Whilst the term ‘reflexivity’ not directly discussed, the author believes that this instance of reflection-on-action will lay more solid foundations for reflection-in action.

4. FUTURE ACTIONS

1. Whilst recognising a comprehensive tool of “*all aspects of quality of qualitative research will remain difficult*” (Dixon-Woods et al, 2004 p265), use of a QualR evaluation to future reflection-in-action and reflection-on-action (Schön, 1983)
2. Balance descriptive detail with adherence to contributory, defensible, rigorous and credible research design (Spencer et al., 2003).
3. Keep curiosity in check through regular fellow researcher/mentor check-ins
4. Consider fully implication on **quality** and **impact** of study outcomes of non-systematic LR and poorer synthesis
5. Explore the components/practices of effective research collaboration to improve overall **quality, accountability** and **impact** of group research outcomes (scholarly & client-focused)

REFERENCES

- Agee, J. (2009) Developing qualitative research questions: a reflective process, *International Journal of Qualitative Studies in Education*, 22:4, pp. 431-447
- Allbon C. (2012) Down the rabbit hole- curiouser and curiouser, *Journal of Organizational Ethnography*, 1(1), pp. 62-71
- Almy, D.W. (2015) The 5 Characteristics of a Great Researcher [online]. Available at: <https://www.insightsassociation.org/article/5-characteristics-great-researcher> [Accessed 22 April 2018]
- Attia, M. & Edge, J. (2017) Be(com)ing a reflexive researcher: a developmental approach to research methodology, *Open Review of Educational Research*, 4:1, pp. 33-45, DOI: [10.1080/23265507.2017.1300068](https://doi.org/10.1080/23265507.2017.1300068)
- Barbour, R.S. (2001) Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *BMJ: British Medical Journal*. 2001;322(7294) pp.1115-1117
- Bolton, G. (2010) *Reflective Practice*. 3rd ed., Sage Publications
- Bolton, G. (2014) *Reflective Practice: Writing and Professional Development*, 4th ed. Sage Publications
- Borah, R., Brown, A.W, Capers, P.L. & Kaiser, K.A. (2016) Analysis of the time and workers needed to conduct systematic reviews of medical interventions using data from the PROSPERO registry, *BMJ Open* 2017; 7:e012545. doi: 10.1136/bmjopen-2016-01254
- Boswell & Cannon (2014) *Introduction to Nursing Research: Incorporating Evidence-Based Practice*, 3rd ed., Jones & Bartlett Learning
- Bourner, T. & Simpson, P. (2014) Action learning and the pedagogy of professional doctorates, *Higher Education, Skills and Work - Based Learning*, 4(2), pp. 122-136
- Bourke, B. (2014) Researcher positionality – a consideration of its influence and place in research [online]. Available at: [file:///C:/Users/bus-fh/Downloads/Researcherpositionalityaconsiderationofitsinfluenceandplaceinresearch%20\(7\).pdf](file:///C:/Users/bus-fh/Downloads/Researcherpositionalityaconsiderationofitsinfluenceandplaceinresearch%20(7).pdf) [Accessed 14th April 2018]
- Bryman, A. (2016) *Social Research Method*, 4th ed., Oxford University Press: Oxford
- Burns, N. and Grove, S.K. (2009) *The Practice of Nursing Research: Appraisal, Synthesis and Generation of Evidence*, Maryland Heights, Missouri: Saunders Elsevier
- Burns, N. & Grove, S.K. (2001) *The practice of nursing research: Conduct, critique & utilisation*, 4th ed., W.B. Saunders Company: Philadelphia
- CASP (2013) Qualitative Checklist: Critical Appraisal Skills Program [online]. Available from: http://www.media.wix.com/ugd/dded87_29c5b002d99342f788c6ac670e49f274.pdf [Accessed 28th March 2018]

Chenail, R.J., Duffy, M., St George, S. And Wulff, D., 2011. Facilitating Coherence Across Qualitative Research Papers, *The Qualitative Report*, **16**(1), pp. 263-275

Clark, A.M. & Sousa, B.J. (2016) The Five Neglected Skills All Qualitative Researchers Need, *International Journal of Qualitative Methods*, Volume 16: 1–3

Coghlan, D. & Brydon-Miller, M. (2014) Positionality, in *The SAGE encyclopedia of action research* (Vols. 1-2). London, : SAGE Publications Ltd

Coimeli Meehan T (1999) The research critique. In: Treacy, P & Hyde, A. (eds) *Nursing Research and Design*, UCD Press: Dublin: pp. 57-74

Creswell, J.W. (2012) *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 3rd ed., Sage Publications

Cummings, J.N. & Kiesler, S. (2005) Collaborative Research Across Disciplinary and Organizational Boundaries, *Social Studies of Science*, Volume: 35 issue: 5, pp. 703-722

Dahlberg, K., Drew, N., & Nystrom, M. (2002) *Reflective lifeworld research*, Studentlitteratur: Lund, Sweden

Davies, D & Dodd, J. (2003) Qualitative Research and the Question of Rigor, *Qualitative Health Research*, Vol. 12 No. 2, February 2002 pp. 279-289

DAWN (2009) Benefits of academic and research collaboration [online]. Available at: <https://www.dawn.com/news/506880> [Accessed 23rd April 2018]

Denzin, N.K. (1986) *Interpretive Biography*, Sage: Newbury Park, CA

Dixon-Woods, M., Shaw, R.L., Agarwal, S., & Smith, J.A. (2004) The Problem of Appraising Qualitative Research, *Quality & safety in health care* 13.3 (2004) pp. 223–225. PMC. Web, 17 Apr. 2018

Drake, P. & Heath, P. (2010) *Practitioner Research at Doctoral Level*, Routledge: Oxon

Dwyer, S. C. & Buckle, J.L (2009) The Space Between: On Being an Insider-Outsider in Qualitative Research, *International Journal of Qualitative Methods*, 8 pp. 54–63

Enya, A., Pillay, M. & Dempsey, S. (2018) A Systematic Review on High Reliability Organisational Theory as a Safety Management Strategy in Construction, *Safety*, 4,6,p pp1-18

Finlay, L. & Gough, B. (2003) *Reflexivity: a practical guide for researchers in health and social sciences*, Blackwell Publishing: Oxford

Fook J. (2011) Developing Critical Reflection as a Research Method. In: Higgs J., Titchen A., Horsfall D., Bridges D. (eds) *Creative Spaces for Qualitative Researching*. Practice, Education, Work and Society, vol 5. SensePublishers

Fox, M., Martin, P. & Green, G. (2007) *Practitioner Research*, Sage Publishing: London

Golding, C., Sharmini, S. & Lazarovitch, A. (2014) What examiners do: what thesis students should know, *Assessment & Evaluation in Higher Education*, 39:5, pp/ 563-576, DOI: 10.1080/02602938.2013.859230

Grove, S.K., Gray, J.R., & Burns, N. (2014) *Understanding Nursing Research: Building an Evidence-Based Practice*, 6th ed., Elsevier: USA

Hare, W. (2006) Why Open-mindedness matters, *Think* 13, 2006: pp. 7-15 [online]. Available at: <http://www.theolympian.com/latest-news/article24154057.ece/BINARY/William%20Hare:%20Why%20Open-mindedness%20Matters> [Accessed 16th April 2018]

Hannes, K., Lockwood, C. & Pearson, A. (2010) A Comparative Analysis of Three Online Appraisal Instruments' Ability to Assess Validity in Qualitative Research, *Qualitative health research*, 20(12), pp. 1736

Heyler, R. (2015) Learning through reflection: the critical role of reflection in work-based learning (WBL), *Journal of Work-Applied Management*, Vol. 7 Issue: 1, pp.15-27

Hoffmann, T., Bennett, S. & Del Mar, C. (2013) *Evidence-Based Practice across the Health Professions*, Chatswood, Sydney: Churchill Livingstone, Elsevier.

Holliday, A. H. (2007) *Doing and writing qualitative research*, 2nd ed., Sage: London

Hurston, Z.N. (1942) *Dust Tracks on a Road*, J. B. Lippincott & Co.

Jarvis, P., Holford, J. & Griffin, C. (2003) *The theory of practice and learning*, 2nd ed., Kogan Page Limited: London

Jirojwong, S., Johnson, M., & Welch, A. (2011) *Research Methods in Nursing and Midwifery*, Oxford University Press: Sydney

Khankeh, H., Ranjbar, M., Khorasani-Zavareh, D., Zargham-Boroujeni, A., & Johansson, E. (2015) Challenges in conducting qualitative research in health: A conceptual paper, *Iranian Journal of Nursing and Midwifery Research*, 20(6), pp. 635–641. <http://doi.org/10.4103/1735-9066.170010>

Kieser, A. & Leiner, L. (2009) Why the rigour–relevance gap in management research is unbridgeable, *Journal of Management Studies*, 46, pp.516–33

Koreman, S.G. (2006) Research [online]. Available at: <https://ori.hhs.gov/education/products/ucla/chapter1/page02.htm> [Accessed 25th April 2018]

Maani, K. E. & V. Maharaj. (2002) *Links between systems thinking and complex problem solving – further evidence*, The 20th International Conference of the System Dynamics Society, Palermo, Italy

MacMillan Dictionary (2018) going) down the rabbit hole - definition and synonyms [online] <https://www.macmillandictionary.com/dictionary/british/going-down-the-rabbit-hole> [Accessed 25th April 2018]

Mallett, R., Hagen-Zanker, J., Slater, R. & Duvendack, M. (2012) The benefits and challenges of using systematic reviews in international development research, *Journal of Development Effectiveness*, 4:3, pp. 445-455

Malone, T. W. & Crowston, K. (1994) The Interdisciplinary Study of Coordination, *ACM Computing Surveys*, 26 (1) pp. 87-119

Markham, A. (2017) Reflexivity for interpretive researchers [online]. Available at: <https://annetmarkham.com/2017/02/reflexivity-for-interpretive-researchers/> [Accessed 23rd April 2018]

Mason, J. (2018) *Qualitative Researching*, 3rd ed., Sage Publications: London

McManus, R. (2017) Responsibility in the research process [online]. Available at: <http://www.socscidiss.bham.ac.uk/responsibility.html#ref> [Accessed 23rd April 2018]

Moher, D., Tetzlaff, J., Tricco, A.C., Sampson, M., & Altman, D.G. (2007) Epidemiology and reporting characteristics of systematic reviews., *PLoS Med*, 2007;4:e78. doi: 10.1371/journal.pmed.0040078.

NASAM (National Academies of Sciences, Engineering, and Medicine (2017) Important Trends and Challenges in the Research Environment; Policy and Global Affairs; Committee on Science, Engineering, Medicine, and Public Policy; Committee on Responsible Science. Fostering Integrity in Research. Washington (DC): National Academies Press (US); 2017 Apr 11. 3, Important Trends and Challenges in the Research Environment

Newton, B.J., Rothlingova, Z., Gutteridge, R., LeMarchand, K. & Raphael, J.H. (2011) No room for reflexivity? Critical reflections following a systematic review of qualitative research, *Journal of Health Psychology* 0(0) 1–20

Northcote, M. (2012) Selecting criteria to evaluate qualitative research. In M. Kiley (Ed.), *Narratives of Transition: Perspectives of Research Leaders, Educators & Postgraduates*. Paper presented at the *10th Quality in Postgraduate Research Conference, Stamford Grand, Adelaide*, 17-20 April (pp. 99-110). Canberra, Australia: The Centre for Higher Education, Learning and Teaching. The Australian National University.

Patton, M.Q. (2015) *Qualitative Research & Evaluation Methods*, 4th ed., Sage Publishing: USA

Patton, M.Q. (2003) Qualitative Evaluation Checklist, September 2003 [online]. Available at: http://fhs.mcmaster.ca/ceb/community_medicine_page/docs/Dec%2014%20-%204.pdf [Accessed 15th April 2018]

Pennock, R. (2016) What Values Are Important To Scientists? [online]. Available at: <https://msutoday.msu.edu/news/2016/what-values-are-important-to-scientists/> [Accessed 22nd April 2018]

Polkinghorne, D. (2006) An agenda for the second generation of qualitative studies, *International Journal of Qualitative Studies on Health and Well-being*, 1(2), pp. 68-77

- QAA (2011) Doctoral degree characteristics [online]. Available at: http://www.qaa.ac.uk/en/Publications/Documents/Doctoral_Characteristics.pdf [Accessed 15th April 2018]
- QAA (2015) Critical Self-reflection [online]. Available at: <http://www.enhancementthemes.ac.uk/docs/publications/transition-skills-and-strategies---critical-self-reflection.pdf?sfvrsn=8> [Accessed at 24th April 2018]
- Ravitch, S.M. & Riggan, J.M. (2017) *Reason & Rigor: How Conceptual Frameworks Guide Research*, 2nded. Sage Publications: USA
- Richards, L. & Morse, J.M. (2013) *Qualitative Methods*, 3rd ed., Sage Publications: USA
- Robbin, J. (2009) Analysing young children's thinking about natural phenomena: A sociocultural/cultural historical perspective, *Review of Science, Mathematics & ICT Education*, 3 (1), pp. 75-97
- Robson, C. (2002) *Real world research: a resource for social scientists and practitioner researchers*, 2nd ed., Blackwell: Oxford
- Robson, C. & McCartan, K. (2016) *Real World Research*, 4th ed., John Wiley & Sons: London
- Rossman, G., & Rallis, S. (2012). *Learning in the field: an introduction to qualitative research*, Sage: Los Angeles, CA
- Schön, D. (1983) *The Reflective Practitioner: How professionals think in action*, Temple Smith: London
- Schultz, K. (2015) The Rabbit-Hole Rabbit Hole [online]. Available at: <https://www.newyorker.com/culture/cultural-comment/the-rabbit-hole-rabbit-hole> [Accessed 25th April 2018]
- Spencer, L, Ritchie, J., Lewis, J. & Dillon, L. (2003) Quality in Qualitative Evaluation: A framework for assessing research evidence, National Centre for Social Research [online]. Available at: https://www.heacademy.ac.uk/system/files/166_policy_hub_a_quality_framework.pdf [Accessed 18th April 2018]
- Thrower, P. (2012) *Eight reasons I rejected your article* [online]. Available at: <https://www.elsevier.com/connect/8-reasons-i-rejected-your-article> [Accessed 15th April 2018]
- UoL, University of Leicester (2010) Research Skills [online]. Available at: <https://www2.le.ac.uk/projects/oer/oers/ssds/oers/research-skills/Research%20skillscg.pdf>
- Vermeulen, F. (2007) 'I shall not remain insignificant': adding a second loop to matter more, *Academy of Management Journal*, 50 (2007), pp. 754-761

Walsh, J.P., Tushman, M.L., Kimberly, J.R., Starbuck, B. & Ashford, S (2007) On the Relationship Between Research and Practice: Debate and Reflections, *Journal of Management Inquiry*, 16(2), pp. 128-154

Watt, D. (2007) On Becoming a Qualitative Researcher: The Value of Reflexivity, *The Qualitative Report*, 12 (1) March 2007 pp.82-101

Wilgens, A. M., Cooper, R., Jadotte, D., Lilyea, B., Langtiw, C. L., & Obenchain-Leeson, A. (2016) How to Enhance Qualitative Research Appraisal: Development of the Methodological Congruence Instrument, *The Qualitative Report*, 21(12), pp. 2380-2395

Zakhleniuk, I. (2017) 6 characteristics of a good qualitative researcher, and 13 ways to ask effective questions in interviews [online]. Available at: <https://medium.com/@igorz/6-characteristics-of-a-good-qualitative-researcher-and-13-ways-to-ask-effective-interview-2a096e0a45a> [Accessed 16th April 2018]

Appendix: Evidence (EV) Portfolio

24

	Group Communications & Sharing							PDoc	BGDoc																								Module																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Whatsapp				Skype Meetings				Co-ordination				Introduction			Literature Review				Methodology														Reflexivity																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Sense-checking / with team or Module mentors RLC: Routine research and reading: exploration of concepts/ideas	Resource Sharing	Task breakdown/ Sharing ideas/support shared	General comms	Consultancy Group	Small group/pair updates	Minute Taking		Proposal Doc outlining key propects of contract with PH	Rest of team updates	Project Lead	Doc Redermces/Bibliographic detail	Lead on Document Authorship	TOR incl. Aims & Objectives (i.e. statement of research aims)	Context Setting: Client & Industry	Background	Inclusion Criteria	Research Search	Key terms/concepts introduced	Synthesis	LR Chapter write-up	Research Philosophy: Pragmatism	Research Methodology: SSM	Justification Qual Method appropriate to the project	Reasoning: Inductive	Data Collection Methodology: QualR/Mixed Methods	Justification ion of methods selected & discounted	Data collection design: Questions/themes etc.	Detail on data collection procedures	Participant Recruitment Strategy	Data Analysis Design	Relationship between researcher and participants	Ethical considerations		Triangulation considerations	Methodology Chapter write-up	Researcher's Potential Bias	Summary of limitations	How findings will be reported	Predicted value of findings	Tracking of one' decision-making and reactio: reflections and thoughts																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

This process facilitated a more critical and objective perspective on my contribution, including a more systematic appraisal of the contents of the BGDoc...
to step back from my own practice, investing time in contemplation, and explore alternative perspectives or approaches (QAA, 2015).

EV02: Lead on BGDoc Document Authorship/Co-ordination of input from team members

07/05/2018 21:39

To: Umar Muhammed; Oren Ben-Gal

[Save all attachments](#)



Hi Umar

Good to talk to you at least for a while.
I attach the docs I mentioned on the call.

One is an overview of the task and pulls together the key info we need to have shared understanding on (Week 4.. doc)
And the other is our live new work in progress WIP document for pulling together our [me, you and Oren's] work on this project. It plans to be the academic supporting document that will be provided alongside 3 method instructions including questions etc documents (we have not got to the latter yet!).

Last night Oren and I worked on developing our academic evidence of the High Reliability criteria (to underpin the criteria we committed to in our proposal)

Tonight we wish to move on to the next key stage – to look for academic evidence/research papers on organisations that have committed to a HR / safety improvement /performance journey.

Give we already have an adapted K-Core model and question set see pg 5 of week 4 doc attached – which is broken up in to 12 - capabilities and variables – we are looking to find evidence that these are the themes/types of investigations that will support a organisation on achieving high-reliability. David has made clear we can apply his K-Core model as long as we can justify this academically.

By examining these papers we hope we not only to prove that our adopted K-core model is based on credible research, but

1. also collate 'content'/'materials' that will expose us to research on what are the 'traditional methods being used by researchers in this field and expose is to new /quantitative approaches
2. Expose us to lines of questioning, in a interview or focus group context, or via doc analysis that have been used, that we can replicate/build upon to inform our own final design

We need to achieve the above by Saturday at latest to be able to move on to the final tasks which is creating documents for the interviews/focus groups and document analysis (what, when, how etc). Thus the work up to Saturday will be valuable in starting off this last stage anyway, so it is pointless to skip ahead to the last stage. We can review task allocation at the weekend. **Given our habit of slipping past deadlines we need to check in formally and hopefully have good info to share by FRIDAY 8PM UK time on a skype call.**

Oren has asked we put any research found in the HRO folder on dropbox – but if you have any difficulties maybe you could email us the papers directly at the end of a research session instead Umar.

I also ask that you start a work in progress document to house your findings and ideas... and also email this to us to we can keep abreast of each other's work, with the plan that we will blend into the final WIP Master file (last save as attached above).

I hope this is ok with you, but it feels like a robust plan to us at the moment.

Kind regards
Felicity

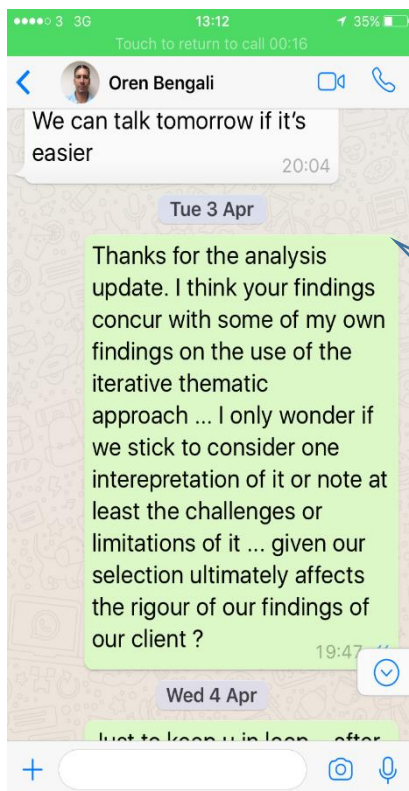
Extract: Felicity: This is my interpretation of the task in hand & hope will serve as purely as an initial communication device to promote shared understanding of the task in hand (call it a sense check on starting conditions for the start of this new fortnight)

There has been a lot of detail/data gathered to date and I believe a shared synopsis will help to bring some coherence to the project given the level of complexity of our challenges continues to grow rather than disappate

I am **not** suggesting in any way this is a perfect capture of the detail, so please query/challenge or question any aspect listed – in doing so you help me also repair my understanding/intepretation. OVER TO US

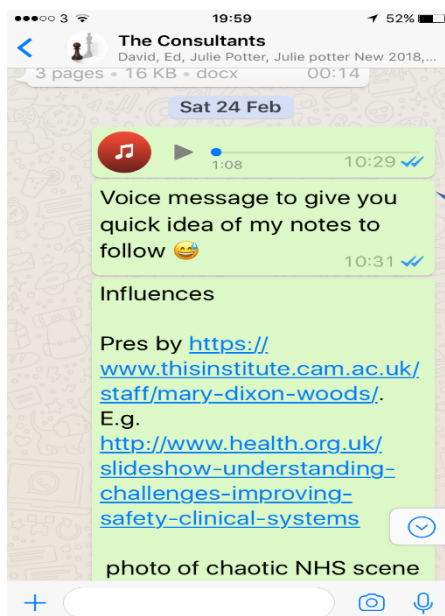
Whilst positionality not stated, the 'position' adopted by the lead researcher has a clear influence of the study's final design, *'from the way the question/problem is initially constructed, designed and conducted to how others are invited to participate, the way knowledge is constructed and acted upon, and ways in which outcomes are disseminated/published'* (Coghlan & Brydon-Miller, 2014, p627)

EV03: Researcher Collaboration: Updates, questioning & challenge



Bi-nightly/nightly updates at peaks of activity on the phone, skype, direct messaging and email with a fellow group member allowed for a healthy exchange of ideas, problem sharing and challenges. Also evidence of questioning/ challenge and consideration of rigour and impact on client outcomes through the activity of researcher collaboration.

EV04: Being curious and open-minded, willing to pursue new lines of inquiry



"Research is formalized curiosity. It is poking and prying with a purpose" (Hurstons, 1942, p. 143).

EV04 is an example of enthusiasm for experimentation and consideration of a breadth of ideas... but did lead to a rabbit-hole...

EV05: Justification for selection of a RLR

(source: RPDoc p10, 2018; written by F Healey-Benson)

There are good methodological reasons for taking a broad approach to a literature search (Loke et al., 2008, RLRs can be used to better understand phenomena, and to gauge what research on a topic has or has not been undertaken (Collins et al., 2014). According to Hailey (2007) they are popular amongst healthcare institutions and professionals, and patient associations to inform health system planning and policy development. The RLR is a method of knowledge synthesis in which components of the systematic review process are simplified or omitted to produce information quickly (Tricco et al., 2015). Whilst the evidence is sourced systematically, it is not a systematic review, and therefore does not seek to provide an exhaustive summary of the theoretical literature or provide in-depth research. It does within a quick timeline as afforded by the client, allow for an overview of contributing knowledge that underpins the research project, surfacing some of the challenges in relation to existing knowledge. This background research summarises readily available research with an emphasis on research and models which inform a HRO journey in a healthcare setting. Whilst there are acknowledged limitations which include selection and publication bias studies suggest that, when review timeframes are restricted, cost and time need to be balanced with benefits of additional searching (Ganann et al., 2010). It is important to note NextGen's commitment to rigour, but in this specific initial stage of PHASE 1 the need to deliver evidence in both a timely manner and usable format contrasts with the detailed and systematic approach which underpins the design of our propriety K-Core model (available

"The science of business"

Although the method was clearly justified on account of the time and resource constraint it would not provide for a confident showcasing of *"analysis, clarity of thought, synthesis, and development of argument"* (UoL, 2018 [online]).